

# KENDALL SQUARE DESIGN GUIDELINES

## Updated draft, April 24, 2012

### B. BUILT FORM

*For clarity and conciseness, guidelines for building form, orientation, street-level uses and design are addressed in a single section below. Criteria are specific to each face of a development block, and are determined primarily by one of three street edge conditions:*

- *Major public street edge – those block edges where the most intensive, and highest-priority, active ground level uses are present and/or desirable. These typically include locations where retail uses are most viable from a market standpoint. In the study area, they typically line Main Street, Broadway, Third Street, Ames Street and portions of Binney Street*
- *Mixed-use active edge (commercial emphasis) – those block edges where active ground level uses are present or desirable, but may require more time to mature pending stronger market conditions and/or development of more appropriate spaces (example: portions of Binney Street with emerging retail opportunity).*
- *Mixed-use active edge (residential emphasis) – those block edges where retail and other highly active ground level uses are not likely nor a strong priority, but where ground level residential and/or other uses should support an attractive and walkable public space network*
- *Mixed-use active edge at public park – park edge condition deserving additional attention to active ground level uses where possible, and to building form that minimizes shadow impacts on park areas*

*At block corners where a change in street edge conditions occurs, ground level use and design criteria for the more active street edge condition also apply to the less active street condition within a distance of 30 to 40 feet from the corner. At these corners, guidelines on building form apply according to the prevailing street edge condition on each side; for instance, upper-floor setbacks for the more active street condition do not apply to any portion of the less active street condition.*

*Underlined text indicates zoning requirements related to the design guidelines.*

## 1. Building Form, Orientation, Street-level Uses and Design

The following guidelines apply primarily to large-scale development sites. For these larger sites, developers should clearly identify the intended use and size for each block. For infill development, new buildings should contribute to the character of the existing street. Guidelines apply per the street edge conditions (see locations on diagram)

### a. Major public street edge

**i. Built form and orientation** Major Public Street Edges should create a well-defined streetwall to help frame Kendall Square's major public streets as public *spaces*. They should also provide adequate space along sidewalks for outdoor activity associated with active ground level uses.

1. Along Broadway; Binney Street; Third Street between Broadway and Binney; and Main Street, set back at least two-thirds of the building façade above 85 feet from the principal façade a depth of at least 16 feet. Residential balconies may project up to 4 feet into this setback. Façade areas without setback may be appropriate at corners or in specific locations to create architectural variety. Along Ames Street, provide a distinct horizontal definition line at a height between 65 and 85 feet that relates to the façade of adjacent or facing buildings through means other than a setback (significant change in material, projecting cornice/fin/shade etc.)
2. Locate the facade at the property line or provide a small setback (5 to 15 feet) from the right-of-way for café seating, benches, or small open spaces directly engaged with interior uses. Setbacks used exclusively for ornamental landscaping are not permitted but may be allowed to accommodate street furniture, street trees, or generous sidewalks. Awnings and canopies are encouraged to provide shelter and enliven the ground floor facade.
3. Locate courtyards and open spaces to maximize sun exposure.
4. Driveway turnaround and vehicle drop-off facilities are strongly discouraged along public streets.

**ii. Street level uses and design** Major Public Street Edges are intended to engage a high volume of pedestrian traffic, and to support public activity throughout the day and evening

1. At least 75 percent of the street frontage must be occupied by retail uses such as cafes, restaurants and shops.
2. Active ground level spaces should have strong, interactive connections with adjacent public sidewalk/plaza space using strategies such as extensive transparent glazing, interactive media or public art, large operable doors and windows, and/or associated outdoor seating.
3. Major entrances should be located on public streets, and on corners wherever possible. Entrances should relate to crosswalks and pathways that lead to bus stops, transit and bike stations.

4. Transparent materials and interior lighting should be used to maximize visibility of street level uses. At least 60 to 75 percent of ground floor façade area should consist of transparent materials that permit clear views between the sidewalk and interior building space.
5. Blank walls exceeding 20 feet in length should be avoided.
6. Service/loading areas are not appropriate.

**b. Mixed Use Active Edge (Commercial/institutional emphasis)**

**i. Built form and orientation** Mixed Use Active Edges with significant commercial/institutional use presence should create a well-defined streetwall to help frame Kendall Square’s mixed-use streets as public *spaces*. They should also provide adequate space along sidewalks for outdoor activity associated with active ground level uses.

1. Contribute to a pedestrian-oriented street character distinctly more intimate than a Major Public Street that includes ample space for walking, street trees and other plantings, and significant access to direct sunlight and sky views, through one or more of the following measures:
  - a. Set back any portion of the building above 45 feet by at least 10 feet from the principal facade. Where appropriate, design these setbacks to include balconies and rooftop terraces.
  - b. Create a strong horizontal definition line on the façade at a height of 45’ through means other than a step-back (such as significant change in material; projecting cornice, fin or shade etc.).
  - c. Incorporate at least 60 to 75 percent transparent glazing in the ground level facade, with direct views between sidewalk and interior building spaces, to expand the apparent width of public space at ground level.
2. Locate courtyards and open spaces to maximize sun exposure.

**ii. Street level uses and design** Mixed Use Active Edges with significant commercial/institutional use presence are intended to engage a high volume of pedestrian traffic and to support public activity throughout the day and evening, now and/or in the future.

1. At least 75 percent of the street frontage should be occupied by active uses and, where retail is not provided upon initial occupancy, should be built to standards enabling conversion to potential future retail as detailed below. Acceptable uses include any combination of the following, in order of decreasing priority:
  - a. Retail (i.e. cafes, restaurants, shops)
  - b. Educational and/or cultural venues
  - c. Services for the public or for commercial offices such as fitness centers, cafeterias, daycare centers, etc.

- d. Community spaces, such as exhibition or meeting space
  - e. Art/information exhibition windows
  - f. Live/work spaces
  - g. Commercial lobbies and front doors
2. Standards for spaces convertible to retail:
    - a. 18-20 foot floor-to-floor height
    - b. Ground floor level flush with and accessible from sidewalk
    - c. Ground floor façade readily convertible to retail-style storefront consistent with transparency and other guidelines of this section
    - d. Interior power, HVAC and other services zoned to enable convenient sublease of interior spaces to retail tenants
    - e. Leasable ground floor depth from façade should average at least 40 feet
  3. Active ground level spaces should have strong, interactive connections with adjacent public sidewalk/plaza space using strategies such as extensive transparent glazing, interactive media or public art, large operable doors and windows, and/or associated outdoor seating.
  4. Office and research uses are discouraged from occupying extensive ground- floor frontage. Where these uses do occur, they should occupy no more than 200 to 240 feet of continuous frontage along public streets.
  5. Major entrances should be located on public streets, and at or near corners wherever possible. Entrances should relate well to crosswalks and pathways that lead to bus stops, transit and bike stations.
  6. Transparent materials and interior lighting should be used to maximize visibility of street level uses. Ground floor facades should consist of at least 40 to 60 percent transparent materials to permit clear views between the sidewalk and interior building space.
  7. Blank walls exceeding 20 feet in length should be avoided.
  8. Loading/service areas are acceptable per the standards outlined below.

**c. Mixed Use Active Edge (Housing emphasis)**

- i. **Built form and orientation** Mixed Use Active Edges with significant housing presence should create a well-defined streetwall to help frame Kendall Square’s mixed-use streets as public *spaces*. They should also provide adequate space along sidewalks for compact residential stoops, porches and gardens, as well as outdoor activity associated with any active ground level uses.
  1. Create a consistent residential edge, with a setback from the sidewalk of 3 to 15 feet for compact front stoops, porches, and gardens.

2. Contribute to a pedestrian-oriented street character that includes ample space for walking, street trees and other plantings, and significant access to direct sunlight and sky views, through one or more of the following measures:
  - a. Step-back any portion of the building above 45 feet by at least 10 feet from the principal facade. Where appropriate, design these setbacks to include balconies and rooftop terraces.
  - b. Create a strong horizontal definition line on the façade at a height of 45' through means other than a step-back (significant change in material, projecting cornice/fin/shade etc.) if it successfully expresses a scale distinctly more intimate than a Major Public Street
  - c. Incorporate at least 60 to 75 percent transparent glazing in the ground level facade, with direct views between sidewalk and interior building spaces, to expand the apparent width of public space at ground level. Include ground-level uses acceptable along Mixed Use Active Edges with commercial/institutional emphasis.
3. Locate courtyards and open spaces to maximize sun exposure.

**ii. Street level uses and design** Mixed Use Active Edges with significant housing presence should support an attractive and walkable public street network. These edges are appropriate locations for ground level housing. In addition, uses acceptable at Mixed Use Active Edges with significant commercial presence are strongly encouraged.

1. Wherever possible, buildings should be designed with individual units and front doors facing the street, including row house units on the lower levels of multi-family buildings. Where residential lobbies face the street, doors should generally be spaced no more than 75 feet apart.
2. Providing fully accessible front entrances, beyond code requirements, is strongly encouraged, while balancing need for interior privacy. Consider strategies including; 1) accessible raised docks lining the façade (with a continuous accessible passage as well as defined semi-private areas); and 2) ground-level entrances with added privacy elements such as 3- to 4- foot high walls, screens or vegetation, projecting trellises, and/or similar elements marking a transition to private space while also enabling visibility between sidewalk and building interior
3. Blank walls exceeding 20 feet in length should be avoided along all streets and pedestrian walkways.
4. Loading/service areas are acceptable per the standards outlined below.

- d. Mixed Use Active Edge at public park** Mixed Use Active Edges at public parks should, in addition to satisfying the active edge criteria identified above per prevailing use type, support welcoming and active park spaces through these additional guidelines:
1. Pay special attention to surrounding the public park with uses that create an active environment throughout the day and evening and increase safety for park users.
  2. Set back at least two-thirds of the building façade above 85 feet from the principal façade a depth of at least 16 feet. In addition, for building volumes above 120' in height, facades facing the park exceeding 100' in width should be separated from adjacent facades by a gap of at least 50 feet, extending back 50 feet from the ground level facade. Residential balconies may project up to 4 feet into setbacks and gaps. Façade areas without setback may be appropriate at corners or in specific locations to create architectural variety.

## 2. Scale and Massing

- a. Locate and shape buildings to minimize shadows on public parks and plazas – particularly Point Park, North Plaza and the anticipated Volpe park area (final location and configuration to be determined), especially in the afternoon. For example, consider limiting new shadow coverage upon any one point to one hour between 10am and 4pm on the spring equinox.
- b. Design new buildings and open spaces to minimize negative wind impacts on public spaces. Conduct wind studies of proposed designs and demonstrate measures taken to minimize impacts.
- c. For new development sites, the block size should be similar to those indicated on the master plan, accommodating new rights of way where indicated. An attempt should be made to reduce the distance that pedestrians have to walk to a crosswalk in order to safely cross the street.
- d. Conform to maximum façade lengths defined by zoning for specific height ranges. For every 100' of façade length, provide at least one major vertical break – a displacement at least 8' in depth, 16' in width and 2/3 of building height, or that otherwise divides building form into major distinct massing elements. Use additional variations in height and architectural elements such as parapets, cornices, passive shading devices, illumination and other details to create interesting and varied rooflines and to clearly express the tops of buildings. Taller buildings should be articulated to avoid a monolithic appearance, and should emphasize slender, vertically-oriented proportions. Emphasize corners using taller elements such as towers, turrets, and bays.
- e. Buildings should have a clearly expressed base, middle, and top. This division should be expressed within the streetwall height zone as well as, for those buildings exceeding streetwall height, within the overall height range as a

whole. This may be achieved through changes in material, fenestration, architectural detailing, or other elements.

- f. In addition to the above guidelines, buildings should reflect a rhythm and variation appropriate to the urban context. For example, this can be achieved by expressing bay widths of 16 to 25 feet in predominantly residential areas and 25 to 50 feet along edges where commercial and institutional uses are prevalent.
- g. Additional guidelines apply to building masses exceeding 200 feet in height:
  - i. Architectural composition should particularly emphasize a distinct identity for the building as well as for Kendall Square as a place. This identity should be legible from adjacent streets and critical viewpoints identified below, as well as within the overall Kendall Square skyline when seen from a distance. This distinct composition should be legible both by day and night, while demonstrating responsible use of lighting and energy consistent with sustainability requirements. Example methods of creating a distinct architectural composition include use and proportioning of materials, colors and/or shapes that differ from those of adjacent buildings.
  - ii. Avoid a monolithic appearance within a given building, and among adjacent buildings. Example methods of accomplishing this include using at least two distinct finish materials and/or colors on each building, and/or creating a dynamic shape(s) that presents different profiles to different vantage points.
  - iii. Emphasize vertical proportions in the architectural composition. Avoid broad “slab” volumes that are prominent from vantage points along major public streets including Main, Broadway and Third Streets, and from points in adjacent neighborhoods. Example methods of accomplishing this include using point towers (building floorplates without long corridors), expressing horizontal volumes as multiple vertical volumes, and/or stepping building volumes back as they increase in height.
  - iv. Compose tall buildings to be seen from significant public places, enhancing them by defining their edges and/or serving as landmarks. For the maximum of six buildings anticipated exceeding 200’ in height, pay particular attention to views from the following public places:
    - 1. One Broadway site (1 building): Broad Canal; Point Park; crest of Longfellow Bridge; along Broadway from points west; along Main Street from points west
    - 2. Volpe site near corner of Third St and Broadway (1 building): Point Park; crest of Longfellow Bridge; along Broadway from points west; Volpe park area; along Third Street from points north
    - 3. Volpe or Cambridge Center area north of Broadway (1 building): along Broadway from points west; Volpe park area; along Ames from points south
    - 4. Cambridge Center south of Broadway (1 building): along Main Street from points west; crest of Longfellow Bridge; MIT/Kendall station plaza; along 5<sup>th</sup> Street Promenade from points north

5. South of Main Street (up to 2 buildings): crest of Longfellow Bridge; Charles River Esplanade in Boston; along Third Street from points north; along Main Street from points west

### 3. Architectural Character

- a. Residential
  - i) Create varied architecture and avoid flat facades by using bays, balconies, porches, stoops, and other projecting elements.
  - ii) Maximize the number of windows facing public streets to increase safety.
- b. Commercial
  - i) Create varied architecture and avoid flat facades by using recessed or projected entryways, bays, canopies, awnings, and other architectural elements.
  - ii) Vary the architecture of individual buildings to create architecturally diverse districts.
  - iii) Where buildings are set back at upper stories, lower roofs may be used as balconies, balustrades, and gardens.
  - iv) Convey the act and spirit of innovation in Kendall Square through transparency that directly reveals activity, and/or active media

### 4. Building connections above street level

Upper-floor connections are encouraged for tenants needing larger floorplates (i.e., 35,000-70,000sf). Connections should be recessed from public spaces, made highly transparent, and otherwise designed to emphasize the distinct appearance of each building. Follow these guidelines according to whether a connection occurs within a block or across a public right of way (connections across Major Public Streets are not appropriate):

- a. Within blocks
  - i. Set back at least 35' from public street façade
  - ii. Façade at least 80% transparent
  - iii. Provide ground level public passage at selected locations
- b. Over side streets/promenades
  - i. Set back at least 35' from public street facade
  - ii. Provide at least 35' or two stories clearance above ground
  - iii. No more than 35' wide and 2/3 of building height (aggregate)
  - iv. Space multiple connections apart by double their greatest width
  - v. Façade at least 80% transparent

### 5. Loading and servicing

- a. Locate no loading and servicing areas along major public street; use mixed-use streets or, preferably, internal alleyways instead.
- b. Avoid creating loading/servicing areas exceeding two bays or 30 feet wide. Occupied ground level spaces with windows should occur between loading/servicing areas.

- c. Loading/servicing bays should be provided with architectural doors designed to complement the overall façade composition. Doors should be customarily closed when loading/servicing bays are in use.