

# Volpe

DRAFT Preliminary Urban Design/Architectural Guidelines  
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## DESIGN PRINCIPLES AND GUIDELINES

The following urban design principles and architectural guidelines are to be incorporated by reference to proposed Volpe zoning. These principles shall be used by the Planning Board to evaluate the various stages of development plan and design review for the Volpe site.

Numerous studies, including K2 and Connect Kendall, show the potential of increasing Kendall Square commerce and housing, strengthening existing retail, expanding open space opportunities, improving access to and from surrounding neighborhoods/districts, updating transit capacity, and improving pedestrian accessibility and safety. Properly designed and implemented the Volpe site can create a unique and meaningful place for all of Cambridge.

## GOAL

The goal of the Volpe Plan is to create a functionally diverse and animated downtown development, predominately consisting of handsome background buildings that focus on and enrich the public street and open space system. All new structures must be compatible with Cambridge's historic architecture and sense of place. The city seeks new buildings and additions that are timeless, subtle, and elegant structures that will always feel comfortable and inviting to the general public.

This will be achieved in part through the design of properly scaled windows, masonry articulation, setbacks, animated silhouettes, and use of materials that are warm, inviting, and supportive of other proposed buildings and spaces.

Cambridge will not support isolated, individual architectural statements that relate only to themselves. The city does support projects that are positive additions to Eastern Cambridge. Specific design guidelines are discussed below.

The city promotes an active setting especially along its main downtown streets both during and after customary business hours. Additionally, the city supports new residential development throughout Kendall Square that will maximize hours of activity and improve public security.

Development in the public and private realms should be integrated in as positive, secure and elegant a manner as possible. Any part of the perimeter of new development which fronts on an existing street or public open space should be designed to complement and harmonize with adjacent, existing or planned land uses with respect to use, scale, density, setback, bulk, height, landscaping, and screening. Finally, each individual project should be carefully conceived and executed to the mutual benefit of its immediate neighbors and adjacent neighborhoods.

New development will inevitably affect the existing Eastern Cambridge community and adjacent residential neighborhoods. Therefore, new public spaces with attractive and inviting connections to and from adjacent neighborhoods are essential.

Special consideration should be given to existing, large trees including relocation wherever possible.

## INFRASTRUCTURE

### **A. Open Space**

The following principles shall be used to define an integrated system of open space that shall consist of parks, and pervious landscape areas open to the sky at the ground level.

Private development bordering publicly accessible open space and thoroughfares must present inviting elevations and imagery, with special attention at the ground plane and lower floors. All development must directly relate to, provide easy access to, and reinforce activity at the existing ground plane. Design must be coordinated to relate well to public open space and public or private passageways that connect with that open space. All retail/restaurant/first floor rental spaces shall be encouraged to be at the same level as the adjoining sidewalk or public open space.

In particular, trees bordering the inside of sidewalks along Third Street and Broadway should be surveyed and catalogued, and considered for preservation.

### **B. Retail**

Retail shall be used to activate ground floor and open spaces where desirable and retail shall be described in a submitted overall retail plan.

### **C. Transit, Roadway & Service Networks**

Entrances to parking facilities and service areas must be coordinated with and not negatively impact adjacent development. In addition, vehicle entries need to be as far enough away from major intersections to minimize vehicular conflicts, appropriately screened from public open space corridors as possible, and integrated into the building forms to minimize visual impact. Service roads should be coordinated together where several adjacent private developments occur. All service bays must be out of general public view.

### **D. Pedestrian Circulation**

All development must include an integrated pedestrian circulation system with particularly strong connections to the public way and between adjacent residential neighborhoods

Existing narrow sidewalks should be increased in width wherever possible to be more safe and inviting, and create room for outdoor dining, retailing, and celebration.

Building lobbies should be directly located on public streets and within public view and, in the case of a mixed-use building, residential and commercial entrances need to be clearly separated from each other in order to add more animation to the ground floor and residential tenant comfort. Lobbies are expected to consist of no more than 25 feet

of frontage.

#### **E. Utilities**

Cambridge will review engineering impacts on infrastructure as part of its review process consistent with City standards. Each development is responsible for managing its own building and land water runoff, which must be handled on site. Architectural related impacts must be gracefully handled to create harmonious conditions along the public domain. All transformers must be screened and located within a building volume.

#### **F. Lighting**

Lighting in buildings, especially those with late-night uses, must be carefully designed to minimize light pollution that could impact nearby housing/hotel residents.

#### **MIX OF LAND USES**

As zoning allows, development is expected to include a mixture of uses, including but not limited to retail, housing, office/labs and open space.

All parking be below-grade or located as traditional street parking.

Publicly accessible, beneficial open space shall consist of parks or squares, and pervious landscape areas open to the sky at the ground level.

Roof terraces at building setbacks for residents and commercial tenants are encouraged as important private amenities and for on-site rainwater retention.

## ELEMENTS OF FORM

The thrust of the development guidelines is to maximize design quality and integrate all projects into both Kendall Square and surrounding historic streetscape and buildings. An exception to the guidelines will be entertained only if that exception will more effectively achieve the overall architectural and city design goals as determined by the Planning Board and Urban Design staff.

### **A. Height**

Height and bulk of buildings should be configured to minimize their visual dominance above a traditional Cambridge [6-8 story?] building base, the extent of cast shadows, and undesirable alterations of air currents affecting the public street and open space system, bordering neighborhoods and adjacent new or planned development. [the number of floors in the building base will be informed by the design and studies of building in context and overall mass distribution.]

No building element may project vertically beyond the maximum height, unless a coordinated system of expressive building tops becomes an integral part of the development's design concept. [Definition of building height should conform to Cambridge zoning]

### **B. Rooftop Mechanicals and Penthouses**

An expressive building roofline appropriately celebrates the building's union with the sky. In general, chimneys, water towers, mechanical equipment, elevator bulkheads, skylights, and other necessary features appurtenant to structures, which are usually carried over roofs, should be designed in a coordinated, distinctive manner in concert with the upper floors of the building and properly screened. Rooftop fixtures shall not be visible from a public way within 200 feet.

The penthouse design and materials must be of equivalent quality to the rest of the building and enhance the overall building design. [need to include images of good examples for both strategies]

### **C. Scale/Proportion of Elements**

Projects must relate to human dimensions and provide a sense of intimacy in all aspects of design from building concept development to construction details. Of particular importance are the treatment of the ground plane and lower floors of the projects, which can be seen and experienced directly by the public.

Although each style of architecture has unique characteristics, successful city center architecture incorporates a relatively similar scale of building elements:, such as size, rhythm and depth of windows; materials; cornices; projecting bay windows; expressed structural bays; entry points, signage; etc. Diversity and variety within a community of buildings can be used to create a more interesting and engaging experience. It is expected that development teams will design new structures that are both harmonious with and enhance Eastern Cambridge's historic character, and where appropriate iconic and innovative architecture.

#### **D. Massing**

New development is expected to reinforce the Kendall Square's existing and proposed street and open space patterns; break down massing to relate to the historic mass and character of Eastern Cambridge; and prevent a monolithic appearance.

Buildings should generally be of a tripartite architectural configuration consisting of base, middle and expressive top.

Properties must be designed to maximize hours of sunlight available to public open space and create a harmonious, architecturally integrated building form that enriches the public domain.

The city does not encourage the creation of alleyways along property lines visible from public view.

New projects adjacent should be responsive to the scale and use of existing neighboring buildings. This can be achieved by incorporating elements such as upper floor setbacks, or by sensitively incorporating similar materials and architectural rhythm, bay size and scale of those structures into the new structure.

#### **E. Street-Walls & Setbacks**

Maintenance of existing or planned street-walls is generally required within the downtown. This may be accomplished by principal front wall plane setbacks and cornice lines, which complement existing buildings on the same block or neighboring blocks unless specified otherwise in a PUD/Special Permit conditions by the Planning Board. Setbacks and cornice lines should relate to each other but can vary, where appropriate, to allow for overall urban design emphasis/richness.

Permissible street-wall exceptions, subject to design review, include, but are not limited to, bay windows, entrance canopies, and at-grade open space amenities.

#### **F. Details**

Development bordering the public domain must be rich in architectural details, pay special attention to the ground plane and silhouette. Overall form and individual elevations must be designed to emphasize human scale and presence through the use of properly proportioned features, including but not limited to punched windows, integral balconies, setbacks, passageways, etc.

**Materials:** New buildings should be warm and inviting in general, particularly at the lower levels experienced closely by pedestrians in the public realm. This may be achieved through the use of Cambridge traditional materials (the unifying element), which typically consist of masonry. The choice of materials also should consider sustainability requirements. The highest quality of materials must be used at the pedestrian levels and base (6-8+ stories) of all buildings.

**Facade Articulation:** In addition, elegant highlights and subtle embellishments are needed to create a desirable community of buildings. For example, the use of masonry stringcourses, lintels, sills and trim that soften, refine and enliven masonry facades

through their contrasting articulation and cast shadows. Key locations for articulation are at building entries, corners, building setbacks, top floor and silhouette. Particular attention to these materials shall be given to the base and lower floors on major streets and open spaces within public view.

**Silhouette/Top Floor:** As buildings increase in height above base depending on location and use, the following matters considered:

1. Whether a very high standard of architectural design excellence, materials and detailing appropriate to the building type and location is achieved. This includes consideration of site and building organization, relationship to other buildings, massing, scale, proportion, rhythm, unity and expression, architectural ambition, architectural language, and aesthetics. ☐
2. Whether the form and external appearance of the building will enhance the quality and amenity of the public realm and sense of a cohesive place. ☐
3. Whether the building exhibits innovative technologies and sustainable design principles, and is designed to be *flexible and adaptable over time*.
4. Whether adverse impacts on the microclimate (including shadows, wind and heat island effects) have been sufficiently mitigated. ☐
5. Whether the building makes a positive contribution to the Cambridge skyline and important views. ☐

**Awnings:** Where appropriate, retail awnings should be encouraged. Awnings will assist in offering an active, vital marketplace image, while at the same time creating a means of protection for shoppers, residents and office workers during inclement weather.

**Transparency of Ground Floor Spaces:** All new buildings should maximize visibility and transparency through ground floor retail, restaurant, and office. Cambridge realizes that future additions of storage rooms, toilets and restaurant, kitchens, and other back-of-house facilities will limit transparency, but it is the city's objective to locate these areas to maximize visibility and transparency where it is desirable. All tenant improvements visible from public open spaces and thoroughfares are subject to the same standard.

**Balconies and Terraces:** New residential buildings should provide sheltered and human-scaled balconies at appropriate locations. The balconies must be detailed so that they are inviting, especially adjoining open space. All new buildings should provide accessible terraces at building setbacks.

**Penthouses:** All mechanical penthouses and other projections should be architecturally integrated within the overall form and individual elevations of the building. The penthouse must enhance, not detract from, the overall building appearance and balance.

**Color:** The city encourages the subtle use of warm and inviting color in all Kendall Square buildings. The selection of colors must be sympathetic to the general historic palette.

**Windows:** For reasons of public health, esthetics and future energy concerns, the city

desires operable windows to be used throughout residential buildings. Strip windows are not acceptable. Traditional masonry openings and articulated fenestrations are strongly encouraged.

**Art:** Individual works of art and their respective settings must work together in a harmonious, subtle way to help humanize public space and buildings at the pedestrian levels.

**Signs:** All signage is subject to design review. In general, signs should be designed to fit well on the buildings, to be legible but not overpowering, and to complement other elements applied to buildings, such as awnings, canopies, or artwork.