

Urban Design Guidelines

While street design and zoning shape the physical form of the neighborhood, urban design guidelines reinforce the characteristics that neighborhood residents value most.

What are design guidelines?

Design guidelines ensure that infill development and additions are compatible with the established scale and uses of Neighborhood Residential areas, while still allowing for a diversity of design. When followed, design guidelines can:

- » Guide projects toward forms that are appropriate to the neighborhood context and city's climate and urban environment
- » Encourage buildings that are designed to be sustainable and efficient
- » Promote safe, functional, and high-quality development
- » Offer a series of spatial strategies and formal components that may be employed to address some of East Boston's most common design challenges
- » Facilitate a consistent process for neighborhood design review

How do I use the guidelines?

Property owners, developers, designers, and contractors proposing new development in East Boston should first review the zoning of the property being developed. They should then proceed to the Design Guidelines. Each section of the Design Guidelines describes the desired design features for all development and gives potential design strategies which might help achieve that quality.

Each proposal undergoing design review should incorporate these guidelines, as BPDA design review staff will use them during review. Though strict adherence may not always be required, it is incumbent upon proponents to demonstrate that any alternative solutions are equal to or better than what is recommended by these guidelines.



Public Realm

Streets and sidewalks comprise the majority of public space in East Boston's Neighborhood Residential areas.

Streets

As defined by the Boston Complete Streets Guidelines, most streets in East Boston's Neighborhood Residential Areas are either Neighborhood Connector or Neighborhood Residential streets. Appropriate street and sidewalk widths should be determined in consultation with the Public Works Department (PWD) and the Boston Transportation Department (BTD). Any changes to the public right of way, including the creation of or changes to curb cuts, must be approved by the Public Improvement Commission (PIC). Proposals located where existing public realm dimensions are insufficient may require additional setbacks to provide the needed street and sidewalk width.

Sidewalks

Sidewalks must be safe and accessible for all users, regardless of physical abilities or age. Boston Complete Street Guidelines define four zones within the sidewalk right-of-way: the Frontage Zone, Pedestrian Zone, the Greenscape / Furnishing Zone, and the Curb Zone.

Frontage Zone

The Frontage Zone is between the building edge and the Pedestrian Zone.

- » The preferred width of the Frontage Zone is two (2) feet.
- » When the Frontage Zone must accommodate sidewalk cafes, the preferred width is six (6) feet.
- » Where constrained conditions do not provide width for the Frontage Zone, the effective width of the Pedestrian Zone is reduced by 1', as pedestrians will avoid the building edge.



Many sidewalks in East Boston are narrow, and do not provide enough width for the Pedestrian Zone. New construction fronted by an inadequate sidewalk may be asked to set the building back to allow for the expansion of the sidewalk.

Pedestrian Zone

The pedestrian Zone is the portion of the sidewalk dedicated to the public path of travel.

- » For Neighborhood Residential Streets, the preferred width for the Pedestrian Zone is five (5) feet. For Neighborhood Connector Streets, the preferred width for the Pedestrian Zone is eight (8) feet.
- » The Pedestrian Zone should be clear of any obstructions, including utilities, trees, and furniture.

Greenscape / Furnishing Zone

The Greenscape / Furnishing Zone is the space between the Pedestrian Zone and the curb. Public fixtures such as street trees, street lights, street signage, hydrants, benches, bicycle racks, signal and lighting control boxes, and utility hatch covers are located in this zone.

- » Preserve existing street trees wherever possible. East Boston has a low tree canopy coverage ratio relative to other neighborhoods in Boston. Tree canopy can help mitigate the heat island effect, particularly in densely urbanized and industrialized areas. Removal of existing street trees will need approval from the City's Tree Warden. Removal of existing street trees without approval will result in a fine.
- » Maximize opportunities to add new street trees wherever possible. New tree pits should be twenty-four (24) square feet at a minimum. Ensure a ten (10) foot clearance from curb cuts and other street fixtures such as hydrants and light poles. Implement best management practices such as suspended pavement systems to provide adequate soil volume.
- » When a project is required to provide external visitor bike parking, place bike racks so that they are visible and accessible from the public right of way. Use City-approved post-and-ring bike racks, which are legible and intuitive to use.



New construction should preserve street trees, and especially mature street trees such as the one pictured above, whenever possible.

Curb Cuts and Driveways

Curb cuts disrupt the Pedestrian Zone and should be avoided where possible.

- » Limit curb cut and driveway width to no more than ten (10) feet. The design of driveways should provide a continuous and level Pedestrian Zone across the vehicular path and encourage vehicles to yield to pedestrians on the sidewalk.
- » Design curb cut edges to standards set by the Public Works Department. For specific guidance, refer to the dimensional guidelines in the Public Works Standard Detail for Residential Driveways.
- » New driveways should accommodate at least two (2) motor vehicles for every one (1) on-street parking space that will be removed as a result of the new driveway.
- » Dark-colored and impervious surfaces contribute to the heat island effect. For new or re-finished driveways, use light-colored and/or permeable surfaces such as pervious concrete, paving stones, or open-grid pavers wherever possible.

Site

Site design mediates between the public realm and the building. In East Boston, where sites can often be narrow and crowded, the relationship of the building to the street and the design and sizing of open space can improve quality of life for occupants and their neighbors.

Relationship to Street

All portions of the building along the public right-of-way should be designed so that their use is evident to pedestrians.

Ground Floor Uses

- » Avoid blank or unarticulated stretches of wall. Unless located in the Coastal Flood Resilience Overlay District, the first interior fifteen (15) feet of the ground floor along principal street frontage should not be composed of inactive uses such as car parking.
- » Garage entrances or doors may be included in the front façade of the primary building form provided that there is at least one story of living space over the garage and it is visually and physically recessive to the primary facade. Use garage doors with windows or openings to avoid creating blank facades.
- » Where the ground floor includes retail spaces, use sufficient transparency, signage, and lighting to allow pedestrians to recognize the purpose of the space.

Ground Floor Elevation

- » ADA-compliant ramps and other accessible entrances are encouraged.
- » If the lowest interior floor with living space is elevated more than 6", take care to avoid blank or unarticulated facade conditions—see "Composition of Principal Facade" on page 43.
- » If located in the Coastal Flood Resilience Overlay District (CFROD), elevate the lowest interior floor with interior circulation to the Design Flood Elevation. Do not locate livable space below the Design Flood Elevation. For specific guidance, refer to the Coastal Flood Resilience Zoning Overlay District Design Guidelines.



Along the ground floor, pedestrians should be able to discern the nature of the space through the treatment of windows and entrances. Residential uses should be distinguishable from commercial uses.



Buildings with elevated first floors may use facade articulation, planting, or other strategies to create an active edge.

Entrances

- » Locate the primary entrance to be clearly visible and directly accessible from the principal street frontage.
- » Provide at least one entrance per thirty (30) feet of building length along the principal street frontage.
- » Create a visible transition space between the public realm and the primary entrance with the use of elements relevant to the building use (such as porches and recesses).
- » In East Boston, many buildings are accessed by stairs or front stoops. Stairs may be recessed into the building facade when the building is set back 4 feet or less. Stoops should be oriented perpendicular to the sidewalk.

Open Space

Open space creates light, air, and views, all of which improve quality of life for inhabitants and their neighbors. Portions of the site that are dedicated to vehicle maneuvering or are not open to the sky are not considered open space. For information on elevated open spaces such as porches, balconies, and roof decks, see "Massing Variation" on page 46.

- » Size and locate ground-floor outdoor amenities such as patios and gardens so that they are easily accessible by occupants.
- » Open space siting and the location of landscaping and planting should be guided by environmental analysis that considers advantageous sun exposure, shadow impacts, and compatibility with adjacent uses, as well as environmental benefits.
- » Where possible, provide a mix of shaded and non-shaded open spaces on-site, and consider how orientation and material choice can create opportunities for passive heating or cooling strategies.
- » For shared outdoor amenities, provide an unobstructed area that may be used for seating when possible.

Landscape

- » Preserve existing on-site trees wherever possible and maximize opportunities to add new trees. When an

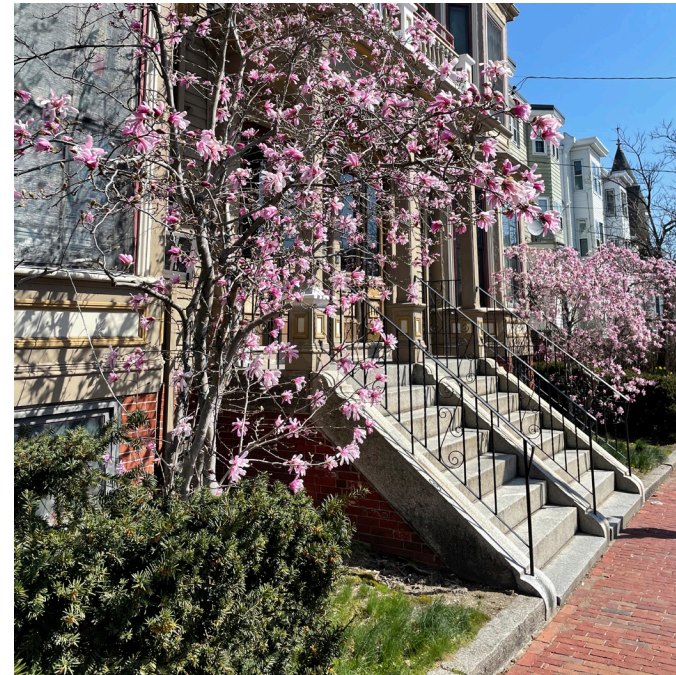


Entrances should be clearly visible. In East Boston, many entrances are recessed, and so proper lighting and visibility from the street should be prioritized for the safety and security of occupants.



In many parts of East Boston, open space can take advantage of topography to frame and create views and enhance daylight access.

- » Existing mature tree must be removed, it should be replaced by a new tree elsewhere on site on a caliper-for-caliper basis.
- » Utilize a diverse mix of native plantings varying in species, heights, and seasonal interest.
- » Maximize permeable surfaces throughout the site through the inclusion of ground-level plantings, green walls, and pervious surfaces such as open grid pavers. Permeable surfaces help to reduce the quantity of stormwater runoff and nonpoint source pollution into the sewer system and maximize infiltration to groundwater.
- » If possible, irrigate landscape elements with collected storm or gray water, to reduce strain on the municipal water supply as well as maintenance costs.



Trees, particularly mature trees, provide significant environmental benefits including carbon sequestration, heat island mitigation, and stormwater run-off management.

Screening and Buffering

Screening and buffering can create boundaries between public and private spaces and between active and in-active uses.

- » Off-street parking and loading, ground-mounted mechanical equipment, and disposal areas and dumpsters should be located on site so that they are concealed from the public realm. When that is not possible, provide screening walls high enough to provide effective screening from public view.
- » When parking and utilities are located next to open space, provide screening and use materials and plantings that enhance the quality of the open space.
- » Use a mix of high-quality fencing and native planting for screening. Provide at least 5 feet of buffering between neighboring lots where possible.



Using a variety of screening materials and strategies, such as fences, planting, and elevation change, can create a rich space that contributes to the overall design and character of the site.

Building

Buildings in East Boston Neighborhood Residential Areas are often of a small to medium scale. New construction is frequently infill, surrounded by buildings of many different styles built during many different time periods.

Composition of Principal Facade

Facade Articulation

The facade of a building should balance its own unique expression with the cohesive visual experience of the entire block.

- » The building facade may be articulated through the use of materials, architectural trim, window moldings, and other architectural features as appropriate.
- » When renovating existing facades, preserve or recreate significant architectural details wherever possible.
- » If a building is located on a corner, consider massing variations and fenestration patterns to give character to the street-facing facade without the primary entrance. In East Boston, many corner lots are long and thin, and an unarticulated facade in these locations can create long, blank walls that deaden the street.

Fenestration

High-quality windows and careful window placement give character and rhythm to a building facade, and can improve quality-of-life for inhabitants.

- » Use materials and window treatments that are of a high quality and complement the exterior cladding of the facade. Materials choices such as wood-framed windows clad in vinyl and double- or triple-paned glass can improve building performance and lower operating and maintenance costs.
- » Align windows on the same facade vertically and horizontally wherever possible.
- » Locate windows to balance interior privacy with access to light and air. On building elevations adjacent to other structures, consider the sight lines into and views out of



In East Boston, given the large number of different building types and styles, no one strategy for facade articulation may be applied to every project. New buildings can use their neighbors for inspiration, but ultimately may create their own unique architectural expression.



While new structures are not expected to copy their neighbors, the use of materials, colors, and proportions that complement neighboring buildings and structures can help integrate the project into the neighborhood.

- » the building.
- » If possible, avoid placing all of a residential unit's windows on a single building face. Windows located on multiple building faces can create cross ventilation, decreasing the cost and use of mechanical systems.

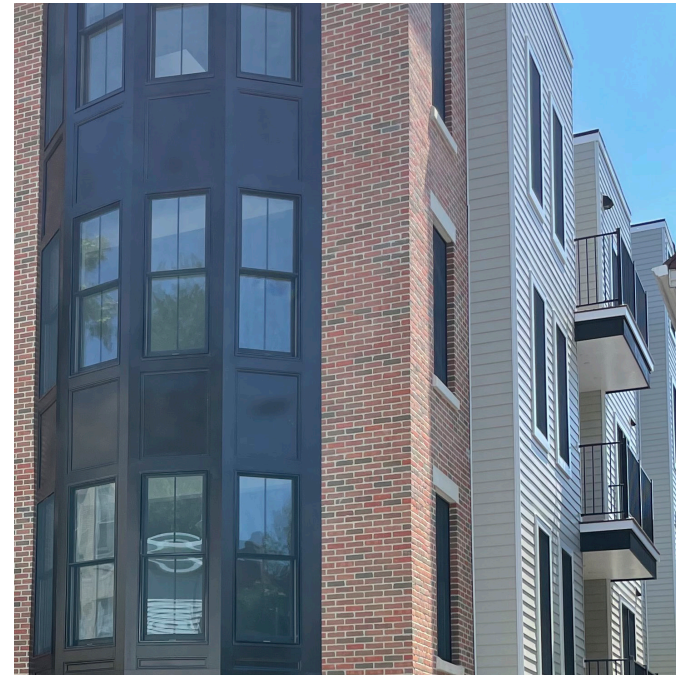
Materials

- » Exterior materials should be durable and of a high quality. Well-chosen materials can reduce the need for future maintenance and help the project become a long-lasting addition to the neighborhood. Avoid the use of vinyl siding and shingles, thin-brick, and EIFS in favor of wood, fiber-cement, full-wythe brick, and traditional hard-coat stucco.
- » Use material colors and proportions that complement each other and highlight the building massing.
- » In general, treat side and rear elevations in a similar way to the front facade. When a project is renovating part of an existing structure (such as in the case of a double-triple-decker), match or complement materials used by the existing part.
- » If located in the Coastal Flood Resilience Overlay District (CFROD), use flood-proof or flood-resilient materials, especially at the ground level.

Utility & Mechanical Elements

While necessary for the functioning and maintenance of a building, utility and mechanical elements are often visually unappealing and their location should be carefully considered.

- » Do not locate utility systems or mechanical elements in front yards. HVAC compressors, gas meters, electric meters, generators, switch gear, and transformers located in side yards, rear yards, and on roofs should be screened from public view.
- » Direct all mechanical vents through the roof or rear wall, and design them so that their appearance is minimized.
- » In the Coastal Flood Resilience Overlay District, locate critical systems above the Design Flood Elevation, such as on a roof or higher interior floor. Use backup systems and flood mitigation systems such as sump pumps and backflow preventers.



A combination of complementary materials can create depth and massing definition.



Vents and other mechanical elements should be located away from the primary facade of the building. The exception is photovoltaic panels, which are encouraged both on flat and pitched roofs and on the ground level of the site.

Scale and Massing

New buildings should be of a similar scale and form to those found on the same block. While much of a building's mass or physical volume comes from dimensions controlled by zoning, these guidelines can guide the composition of that massing to ensure that a new project feels at home in the neighborhood.

- » If a building is larger than typical buildings in the area, consider how to compose the massing to maintain regularity with its neighbors using setbacks and step-backs.
- » Align upper-level floorplates with ground-floor floorplates. Large projections and cantilevers should be limited and, when introduced, should be composed as special building features that relate to building elements found in the area.
- » Avoid partially covered parking and avoid building over the public-right-of-way.

Additions

When designing an addition, consider whether it should read as an extension of the existing massing or as a secondary building element.

- » Most frequently, additions are smaller in scale than the existing structure. In these cases, it may be appropriate to design the addition using similar materials, proportions, and details as the original structure.
- » Where the proposed addition is of a substantial scale, consider using material and massing differentiation to break down the scale. Take care to design the addition so that it does not overwhelm the existing building or the scale of the neighborhood.
- » If the existing structure is historically significant, delineate between the old and new through changes in plane, material, or height; but not necessarily architectural character.

Roof Forms

The roofline of a building contributes to the overall visual character of a block, especially when it utilizes changes in depth and material.



Even when a new project is of a different style, it will feel like a natural piece of the neighborhood if it responds to the overall scale of its neighbors. Building width, depth, and overall height, both actual and perceived, are particularly important.



The treatment of additions depends on the context. Small additions may be treated in a similar manner to the existing building, such as the shed dormer above.

- » Design the roofline so that it has a clear main form. Subsidiary roof forms such as dormers should be clearly subordinate to the main roof form in size, volume, placement, and number.
- » On all flat roofs, use light- or white-colored materials. Where feasible, consider planting native species on flat roofs to create a green roof. Both white and green roofs can help reduce heat island effect, and green roofs can help reduce rainwater runoff.
- » Photovoltaic panels may be incorporated onto all roof-types.
- » For roofs with angled faces, such as gabled roofs, hip roofs, or Mansard roofs, avoid using multiple pitches in a single roofline.
- » Roof decks and railings should be set back at least five (5) feet from all facades if possible. A larger front setback may be necessary to minimize visibility from the sidewalk. Roof deck access should be through a hatch or through an exterior stair and should not be visible from surrounding public rights-of-way.



Roof forms, such as this Mansard Roof, contribute to the overall visual character of a block, especially when they utilize changes in depth and material.

Massing Variation

- » Create visual depth and modulation through the use of stepbacks and pitched-roofs when appropriate, such as to match an existing datum line or neighboring stepback.
- » For dormers, use materials that match the style of the existing facade. Align dormers that are on the same story and size them consistently. Hold dormer edges back from the sides of the roof and down from the roof ridgeline. Shed dormers should have a minimum slope of 3.5-to-12.
- » Decks, porches, and balconies may be located at the front, side, or rear face of a building. Choose materials that complement the facade. The material and spacing of railing and railing supports should not overwhelm the building facade. Projecting porches may be screened, but a permanent enclosure is prohibited.
- » Scale bay windows according to the rest of the building design and the surrounding context. Avoid terminating oriels in flat, horizontal lines or on top of canopies or porches.



Massing variations such as porches can create interesting contrasts and/or connections to the main building volume. Secondary elements such as columns, railings, and edging should be scaled appropriately and should use materials that complement the building facade.