



4

BUILDING DESIGN

- 4A Building Placement
- 4B Building Form
- 4C Ground Floor Design
- 4D Building Modulation and Articulation
- 4E Building Signage
- 4F Building Lighting
- 4G Loading Facilities, Utilities and Equipment
- 4H Automobile-Oriented Uses
- 4I Townhomes and Stacked Townhomes

INTENT

Well-designed architecture supports a vibrant, walkable urban environment and contributes to the creation of a cohesive and coordinated public realm. Buildings play a critical role in creating pleasant, pedestrian-friendly places. How buildings interface with the public realm should be considered from the perspective of the pedestrian. Buildings that are scaled to the street and contain ground-floor features designed to interest the pedestrian will promote a positive experience.

The recommendations in this chapter help ensure that buildings contribute to a public realm that is:

- comfortable and safe environment for pedestrians;
- cohesive and coordinated across the district; and,
- sensitive to the existing context.

This chapter addresses the physical elements of buildings, including their placement along streets, massing and form, ground floor design, façade modulation, articulation, and materials. It details how utilities, service access, and loading facilities should be accommodated. General building design guidance, including maximum building heights, is contained in the Comprehensive Plan and/or the Zoning Ordinance.

INSPIRATION

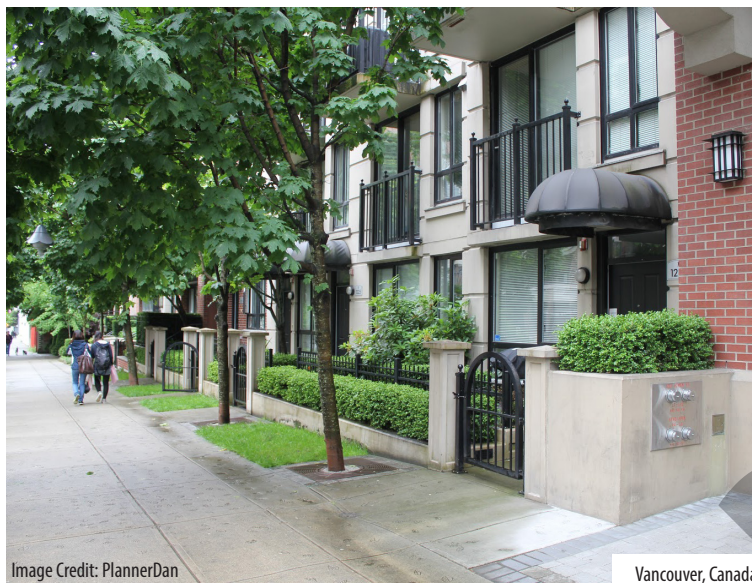


Image Credit: PlannerDan

Vancouver, Canada



Image Credit: Gensler

Nashville, TN



Image Credit: Federal Realty

Bethesda, MD



Image Credit: Architect Hord Coplan Macht

Fairfax, VA

Building form, building placement on the site, and ground floor design are key design features that contribute to an area's sense of place, while supporting a high-quality pedestrian environment

4A BUILDING PLACEMENT

BOTTOM

Buildings sited at the build-to line; entrances front onto the street to create a comfortable, welcoming and pedestrian-oriented street with a sense of enclosure
Image Credit: Avalon Bay



Merrifield, VA

Buildings are instrumental in contributing to a positive pedestrian experience when they define the boundaries of public spaces, contain uses that bring vitality to the area, and are designed so that the building's uses interface with the street and public realm. Buildings should be located so they frame the street to support walkability, street-level activity, civic gatherings, and retail vibrancy.

DESIGN PRINCIPLES

Locate buildings close to and fronting on the street. Pedestrians want convenient access to buildings and have a psychological desire for well-defined streetscapes. When buildings and their primary entrances directly front the street and coordinate with the street's pedestrian facilities, they create a lively, inviting, and pedestrian-scaled environment where people can feel comfortable walking between local destinations. (See Graphic 8: Building Placement).

Adhere to minimum setbacks or build-to lines to foster a consistent street wall. A consistent street wall is formed when the majority of buildings on a block are located at the desired build-to line. Where existing buildings are set back from the street, new developments should aim for a more urban form. Street walls help establish the character for the street, provide a sense of comfort and enclosure to pedestrians, and have a positive impact on placemaking.

The build-to line is a theoretical line adjacent to the streetscape indicating where the façades of buildings should be located. In these Guidelines, the build-to line is analogous to a building setback. The build-to line ensures that the ground floors of all buildings on a block are generally aligned with one another. It generally applies to the podium (or base) of the building structure and excludes building towers, which may be set back further to allow light and air to reach the ground.

Sec. 3102.3.C.(2) of the Fairfax County Zoning Ordinance permits properties within Commercial Revitalization Districts to use a lesser setback than the underlying zoning district regulations where specified in the Comprehensive Plan.

DESIGN STRATEGIES

1 Setbacks and Built-to Lines

- A. The ground floor of buildings should be located along the build-to lines as depicted in the street cross-sections contained in the Comprehensive Plan and/or the Volume II: District Design Guidelines. Where not specified in the Comprehensive Plan, the build-to line is located at the edge of the Building Zone and does not intrude into the streetscape area.
- B. In locations where buildings are not present, consider landscape features or structures such as short landscape walls, canopy structures, or additional trees and vegetation along the built-to-line to define the street edges.
- C. Plazas, pocket parks, open spaces, and landscape features may occasionally interrupt the build-to line to create special moments. Auto-oriented features such as parking lots or autocourts should be located away from the primary street or internal to the development.
- D. As a general guideline, at least 75% of a building's frontage should be located at the build-to line.
- E. Additions to existing buildings should be designed so that they increase the presence of the building on the street by either adhering to, or coming closer to, the desired build-to line.



TOP

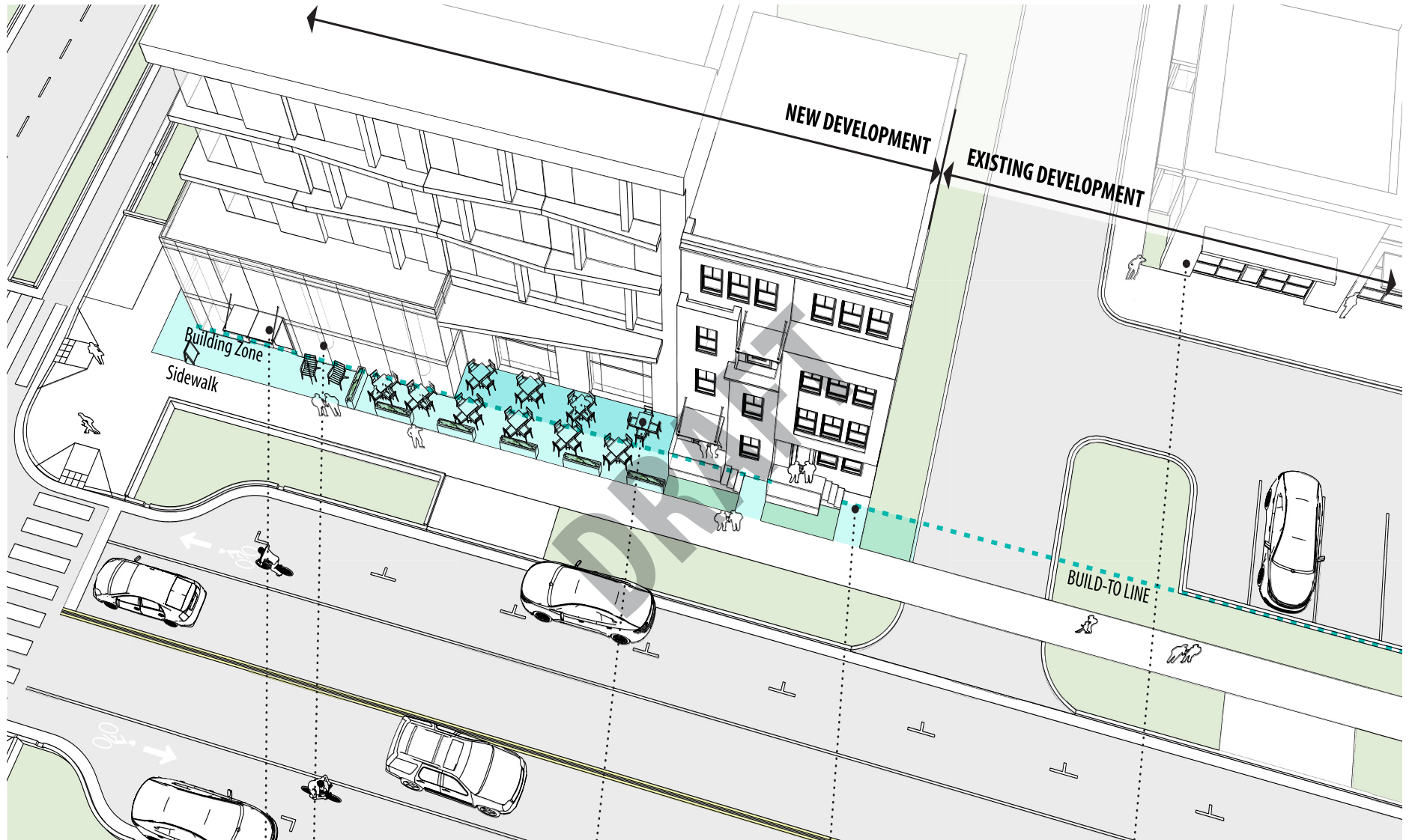
Ground floor portion building is aligned with the streetscape at the build-to line, while upper floors are set back to create an appropriately scaled structure in relation to the street
Image Credit: RAMSA



BOTTOM

Building orientation that faces the street frontage reinforces an urban form along a busy pedestrian-oriented street
Image Credit: Christian Phillips Photography

GRAPHIC 12: BUILDING PLACEMENT



BUILDING PROJECTIONS

Canopies, or other building overhangs, can project into the Building Zone

FENESTRATION

At least 60% of the commercial ground floor facade should be transparent

AMENITY SPACE

Buildings can be set back to accommodate additional amenities or building entrances

BUILD-TO LINE

At least 75% of the commercial building frontage should be located at the build-to line

EXISTING DEVELOPMENT

Existing buildings are often set back further from the street; new buildings should adhere to build-to lines as described in the Volume II: District Design Guidelines

4B BUILDING FORM

Building form refers to the height, the general shape, and how it relates to other building masses in the area. A creatively massed development incorporates techniques such as step-backs and building height variation to form urban spaces that function well for users. A building's form can be used to create focal points at gateways and town centers, frame views and define public spaces, and enhance the walkability of an area by the way that it interacts with the pedestrian realm to create visual interest and offer protection from the elements.



Alexandria, VA

DESIGN PRINCIPLES

Design contextually, with a compatible but unique architectural language. A successful building form should reflect the building's context by relating positively to other buildings, including identified or potential historic buildings and environmental or topographical features in the area. Where there is an opportunity, design cues from surrounding buildings should be incorporated into new developments. This does not mean mimicking the neighboring buildings, but rather developing an architectural language that utilizes elements from the existing context such as architectural rhythm, materials, and/or scale to create a design that is compatible but distinctive.

Ensure that building heights conform with the Comprehensive Plan and transition compatibly to adjacent uses. In the Comprehensive Plan for the CRDs and CRAs, maximum building heights are a factor that is used to achieve an overall urban form and to focus intensity at certain locations, while also limiting impacts on adjacent properties. The tallest buildings are frequently planned closest to the center of the CRD or CRA, located in town centers and/or near transit facilities.

Employ creative building massing to foster variations in urban form and minimize impacts on adjacent properties. A creatively massed development incorporates techniques such as building step-backs and variation in building height, especially when adjacent to sensitive land uses; it distinguishes a structure's bottom, middle,

BOTTOM LEFT

The form of this residential building is stepped down to transition to lower height adjacent uses

Image Credit: Shalom Baranes Architects

DESIGN PRINCIPLES (CONTINUED)

and roof line, while emphasizing features on the ground floor. In some instances where a large building footprint could dominate an entire block, such as a parking garage or large-format retailer, it may be necessary to incorporate design strategies that minimize the impact of these uses on the pedestrian experience. Massing and orientation can also reduce shadowing while maximizing access to sunlight.

Variations in building heights can be used to create a signature building at a key intersection or gateway. Tapering down of building heights is often used to address impacts to neighboring single-family or low-density residential areas.



RIGHT

Building form and use is delineated through variations of materials, building step-backs and building heights
Image Credit: Fairfax County

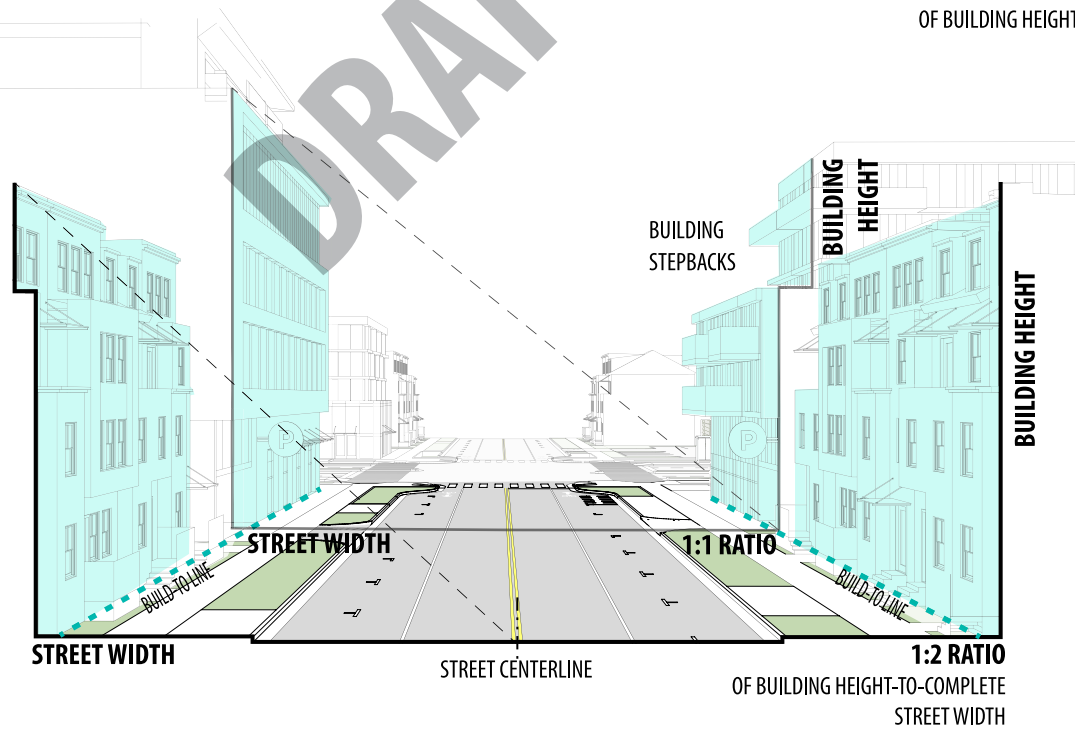
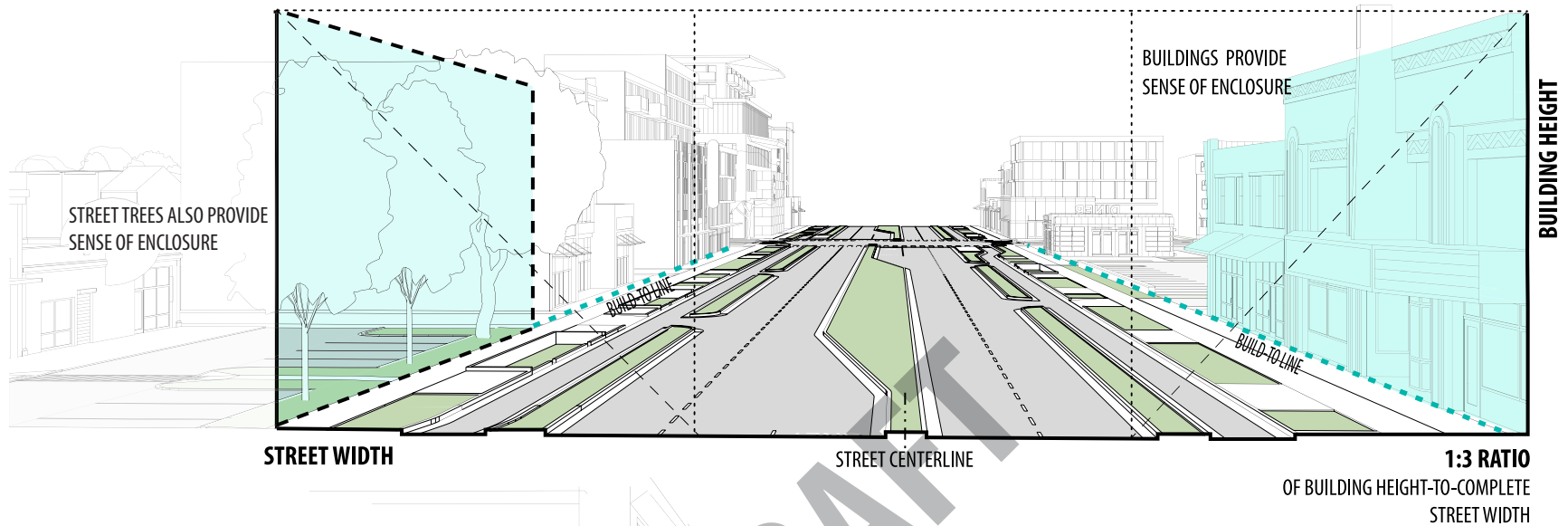
Alexandria, VA

DESIGN STRATEGIES

1 Building Height-to-Street Width Ratios

- A. Building height-to-street width ratios of between 1:3 and 1:2 should be provided to create an appropriate sense of enclosure for the street, while the height-to-width ratio should not exceed 1:4. (*See Graphic 9: Building Height to Street Width Relationship*).
 - i. On Local Streets, a 1:1 ratio may be appropriate.
 - ii. Street width is calculated from the build-to line on one side of the street to the build-to line on the opposite side of the street.
- B. Step-backs in building height and massing on upper floors can be used to create an appropriate proportion of street width to building height, while creating a sense of enclosure where buildings meet streetscapes.
- C. Closely spaced street trees or median trees may be used to provide a similar sense of definition and enclosure while softening the edges of buildings. Trees can also define and enclose the inside edge of a sidewalk in locations where building frontage does not exist adjacent to the sidewalk.

GRAPHIC 13: BUILDING HEIGHT TO STREET WIDTH RELATIONSHIP



DESIGN STRATEGIES (CONTINUED)

2 Building Massing

- A. It is highly encouraged that building heights within a single development be varied to create a more dynamic skyline..
- B. Above the building's base (also known as the podium), building step-backs or breaks in the building form are encouraged to create effective transitions in heights, highlight open spaces, frame views, and/or to reduce the impact of building height and shadows on the ground. Step-backs can vary in depth and location, depending on the size and proportion of the building.
- C. The difference between a building's podium and remainder of the building (the tower) should



BOTTOM

Base-middle-top composition reduces building scale and sets up proportion
Image Credit: Design Collective

Tysons, VA

be expressed to foster a design that is human-scaled. This can be achieved through changes in material, use of cornice lines, arcades, and/or changes in fenestration, where appropriate to the architecture. Effective techniques for each portion of the building include:

- i. Building base – The base and cornice line should primarily be proportional to the building, then consider how they relate to adjacent, existing buildings. Use compatible architectural details, step-backs and/or materials. A distinctive ground floor design should utilize durable materials, prominent building entries, window fenestration, and design details that lend pedestrian scale and visual interest to the building, see Section 4C (“Ground Floor”) for additional information.
 - ii. Middle floors – Distinctive fenestration and articulation should produce a rhythm that complements adjacent buildings as well as the building's base and roof line.
 - iii. Top floor and roof line – A varied roof line should be provided to add visual interest from observable angles and reduce the perceived mass of large scale buildings.
- D. Green roofs or occupiable spaces are encouraged within the outdoor areas created by the step-backs to maximize the use of the site and to create a pleasant appearance when viewing these spaces from upper floors. (See *Graphic 10: Transitions in Building Form*).

BUILDINGS TRANSITIONING TO LOWER DENSITY EXISTING DEVELOPMENT

TRANSIT STATION

NEW DEVELOPMENT

EXISTING DEVELOPMENT

STREET

Image Credit: Google

Liberty Harbor, Jersey City, N.J.

Building forms and heights match those on the opposite side of the street

CHAPTER 4: BUILDING DESIGN 4-11

DESIGN STRATEGIES (CONTINUED)

3 Building Orientation

A. Building orientation should minimize the casting of shadows onto adjacent properties and open spaces.

- i. Step-backs in building height and massing on upper floors can be used to reduce the impacts of shadows and increase access to sunlight, a particularly important consideration as it relates to public open spaces.

BELOW

Step-backs in massing reduce shadow over the central plaza and pedestrian alley
Image Credit: Foster + Partners



Washington, DC

- ii. A shadow study may be necessary to ensure that adjacent buildings, open spaces and sidewalks will have access to adequate light and air.
- B. The design of corner buildings should incorporate building form variations that highlight the building's prominent and visible location, such as additional building height relative to surrounding buildings, distinctive rooftop and façade elements, and shifts in building geometry.
- C. Signature buildings with notable architectural features that stand apart from those of surrounding buildings should be sited in prominent and visible locations, such as at gateways, key intersections, on corner sites, at higher elevations, or at other locations that are highly visible from surrounding areas.
- i. Signature buildings should create a sense of arrival and serve as a visible landmark for the area.
 - ii. Signature buildings should be distinguished by their distinctive form—for example, by incorporating additional height relative to surrounding buildings.

4C GROUND FLOOR DESIGN

In a high-quality urban area, the ground floors of buildings work symbiotically with the surrounding streetscape and public spaces to provide an experience that is safe, comfortable, and engaging for pedestrians.

The “Ground Floor” is defined as the first level of a structure that is at a similar elevation as the streetscape.

The phrase “Activated Ground Floor” refers to the combination of use and design that creates a positive experience for pedestrians or helps to generate pedestrian activity. Having uses such as retail, restaurants, outdoor dining, lobbies, entrances to individual residential units, building amenities, public spaces, and certain office uses on the ground floor is the desired way for buildings to relate to the street. Other interim or permanent creative uses can help enliven ground floors also are strongly encouraged.

DESIGN PRINCIPLES

Ground floor building space should contain active uses adjacent to streets and parks. Active uses include offices and conference rooms, lobbies, retail, restaurants, and building amenity areas. Consider how to promote a relationship between the ground floor uses and the Building Zone. Refer to Chapter 2H for information on the Building Zone design. Parking, loading, and other back-of-house functions are strongly discouraged adjacent to streets and parks.

Incorporate a range of façade and building form treatments to foster a varied and dynamic pedestrian experience.

The careful articulation of the ground floor façade is crucial because it is experienced close up by pedestrians. Building treatments such as changes in materials, special corner designs, transparency, modulation, entrances, and cornice lines contribute to a high-quality ground floor design. (*Graphic 11: Ground Floor Strategies for Residential and Non-Residential uses illustrates how to incorporate these features*).

BELOW

Retail storefront with well-designed glazing and seating activates the street
Image Credit: San Jose Blog



San Jose, CA

DESIGN STRATEGIES

1 Non-Residential Ground Floors

- A. The height of the ground floor in non-residential buildings should be tall enough to accommodate a variety of uses. Floor-to-floor heights should range from 16 to 20 feet.
- B. Non-residential entrances should be oriented toward primary streets and should be accessed directly from the adjacent public sidewalk or Building Zone.
- C. Except when there are significant existing topographic variations, storefronts should be at the same grade as the sidewalk and Building Zone.

BOTTOM

Retail storefront with well-designed glazing and seating in a narrow Building Zone activates the street
Image Credit: River Oaks District

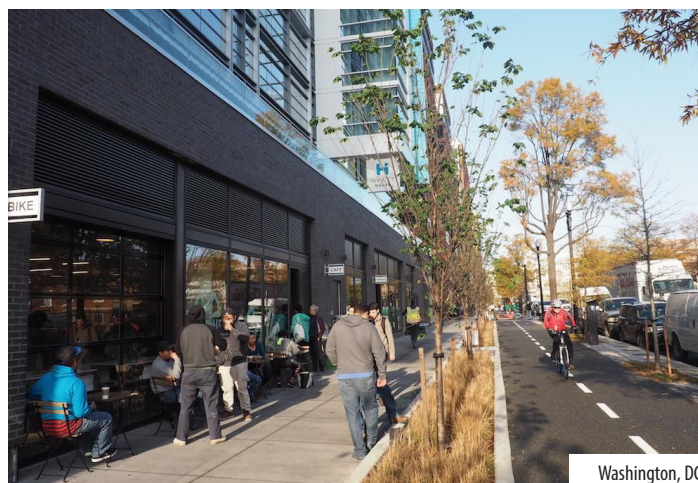


Houston, TX

- D. Door and window openings should be spaced to promote building transparency.
 - i. As a general guide, doors should be provided approximately every 60-feet.
 - ii. In general, glazing and other transparent materials should be used for at least 60 percent of the total ground floor façade.
 - iii. Clear glass should be located 2 to 10 feet above-grade. False windows, highly reflective glass, opaque glass, and permanent vinyl window clings that obstruct views through windows are discouraged.
 - iv. Windows should not be obstructed by window signs, permanent displays or blinds.
 - v. Storefronts should be well-lit but not overly bright as to detract from the pedestrian experience.
- E. When retail or other commercial uses are not supported by the current market, consider alternative uses or designs that create an “Activated Ground Floor” such as highly transparent lobbies and amenity spaces, live-work units, and residences with individual entrances and well-defined Building Zones. Consideration should be given to designing these spaces in a manner that allows for the future conversion to retail use.

DESIGN STRATEGIES (CONTINUED)

- F. Awnings and canopies are encouraged to be incorporated into ground floor façades to provide protection for pedestrians and identification for businesses.
 - i. Awnings and canopies should relate to the scale of the building and should not overwhelm the façade.
 - ii. Awnings and canopies should be made of high-quality, easily maintained materials, such as canvas or painted aluminum.
 - iii. Awnings and canopies should be installed so that the valance is a minimum of 8-feet above the ground in the Building Zone or sidewalk and should not overhang into the Landscape Panel. Placement should avoid conflicts with mature street trees.



Washington, DC

2 Multi-family Residential Ground Floors

- A. Residential lobby entrances should be highlighted through overhangs, special paving, building-mounted signage, landscaping, and/or lighting.
- B. The façades of lobbies should be predominately transparent.
- C. Individual residential entrances should be frequently spaced to create breaks in the building façade, encourage ‘eyes on the street’, and increase pedestrian interest.
- D. Ground floor residential uses and private, individual entrances are encouraged to be grade-separated from the public sidewalk to separate the public and private realms.
 - i. The ideal vertical difference between the sidewalk and the main level of the residence is ~3-feet so that windows are mostly above eye-level at the street.
 - ii. Stoops, bays, porches, or entries should be incorporated.
 - iii. Stairs, porches, or ramps should not impinge upon the sidewalk and should be located entirely within the Building Zone.
 - iv. When grade separation cannot be achieved, a hardscaped or landscaped space should be provided between residential use and the public sidewalk.

LEFT

Ground floor engages with the street by being at the outer edge of the Building Zone
Image Credit: Jon Banister, Bisnow

GRAPHIC 15: GROUND FLOOR STRATEGIES FOR RESIDENTIAL AND NON-RESIDENTIAL

RESIDENTIAL



Renton, WA

Image Credit: Seattle.gov

- 1 Landscaped buffer between sidewalk and building
- 2 Grade separation of residences from street provides privacy
- 3 Stoops and overhangs highlight entrances and add rhythm to the streetscape



Fairfax, VA

Image Credit: SK&I Architecture

- 1 Ground floor windows and entrances add transparency and activate the street
- 2 Prominent entrance and lobby highlighted by façade treatment and clearly delineated from rest of building
- 3 Entrance design accentuates the importance and visibility of the street corner

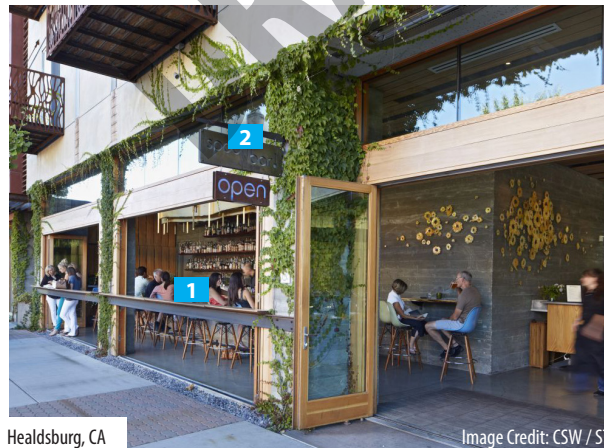
RETAIL



London, UK

Image Credit: London Lifestyle Apartments

- 1 Storefronts distinguished from other uses above by façade treatment
- 2 Storefronts with large, pedestrian-oriented windows provide transparency and activate the street



Healdsburg, CA

Image Credit: CSW / ST2

- 1 Large windows, glazing and open storefront provide transparency and activate the streetscape
- 2 Pedestrian-scaled signage

HOTEL/OFFICE



Birmingham, MI

Image Credit: Lambros Photography

- 1 Signage, canopy and ground floor windows highlight hotel entrance, lobby and curbside drop-off area
- 2 Larger windows at ground floor engages the street and adds façade transparency



Seattle, WA

Image Credit: Pennon Construction

- 1 Façade treatment, overhang, and lighting highlight and distinguish the entrance
- 2 Street furnishings and plantings enhance the character of the streetscape

4D BUILDING MODULATION AND ARTICULATION

Buildings gain their character and distinguish themselves through modulation and articulation. Modulation generally refers to changes in a building's horizontal and vertical planes. Articulation refers to the organization of the building details and materials. Modulation and articulation work together to transform a simple mass into a composition that results in complexity and variety; both are essential to developing an interesting streetscape for pedestrians.



Washington, DC

DESIGN PRINCIPLES

Utilize modulation and articulation to break up building mass, define architectural character, and animate the streetscape. Horizontal and vertical planes should be used on each building façade to break up the mass of a large structure and to create visual interest. The appropriate scale for this articulation is a function of the size of the building and the adjacent public spaces including sidewalks, landscape zones, and roadways.

Use high-quality and context-sensitive exterior materials. The materials used in façades should contribute to the character of an area, especially for the building's base. Finishes, along with architectural details, can bring a human scale to buildings and add interest to a streetscape when considered in conjunction with the adjacent public realm.

Treat building façades to create a unique building character. In the CRDs and CRAs, building character should be expressed through the proportion, style, and rhythm of building elements. The treatment of façades should reflect the overall architectural style of the project, while also retaining individuality. Details such as transparency, light, color, texture, and the inclusion of art should be used cohesively to create a unique character. (See *Graphic 12: Building Façade Modulation*).

LEFT

One large multi-family building facade is broken down into 4 facade modules to mimic a traditional multi-building urban block

Image Credit: Torti Gallas

TOP

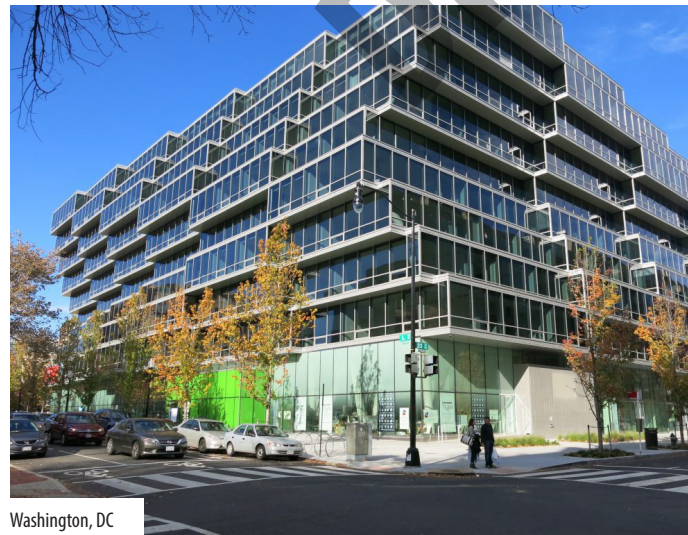
Large format retailer integrated into the core of a building mass
Image Credit: MMA Architects



Washington, DC

BOTTOM

Cantilevered glass façade with some sections that step out and back preserve neighbors' views and minimize the structure's bulk along the streetscape
Image Credit: amrank.info



Washington, DC

DESIGN STRATEGIES**1 Façade Modulation**

- A. Façades should include a rich composition of design elements that provide visual interest from different vantage points. A variety of horizontal and vertical planes should be organized to break up a building's mass, create visual interest, and align the scale of the architecture to the pedestrian.
- B. Façades should be modulated to express changes in uses or tenants.
 - i. Changes in vertical massing, architectural projections, and recesses may be used to achieve this modulation.
 - ii. Modulation should be clearly delineated and balanced with the design of the building.
 - iii. For residential uses on the ground floor, exterior modulation should correspond to individual units, where possible
- C. The visual appearance of long building elevations should be enhanced by incorporating variations in the wall plane, and the use of bays and fenestration, as well as through the addition of public art, and/or landscaping. Large blank façades are discouraged, except potentially along service streets or other locations where they cannot be viewed from the public realm.
- D. Arcades, or porches can be incorporated to foster a human-scaled environment at ground level and to create external walkways that provide protection from the elements, particularly in locations where it is anticipated that pedestrians will linger.

DESIGN STRATEGIES (CONTINUED)

2 Façade Articulation

- A. All façades of a structure that are visible from the public realm should receive equal attention in order to attain a quality building design.
- B. Building materials that help relate to the human scale are encouraged to be incorporated in the design of façades. Consideration should be given to breaking façades up into sections through the use of different materials or architectural treatments.
- C. Three-dimensional architectural elements such as cornices, moldings, and window heads should be incorporated on building façades where architecturally appropriate to create shadows on the façade and provide both variety and scale.
- D. Window groupings are encouraged to be used to create interest. This can be particularly effective when highlighting building entrances. Windows should be chosen based on the proportions and architectural style of the building.
- E. Building design should minimize large, uninterrupted surfaces of transparent or reflective glass by creating “visual noise” or noticeable surface areas that birds will not try to fly into or through.



TOP

Three dimensional elements and building groupings create interest
Image Credit: Squire Partners



BOTTOM

Modulated façade establishes vertical proportions that divide the mass of the building into bays; horizontal balconies that reduce the scale of the building's proportions create a well-articulated elevation
Image Credit: Vassilena Sharlandjieva via www.ubyssey.ca

GRAPHIC 16: BUILDING FAÇADE MODULATION

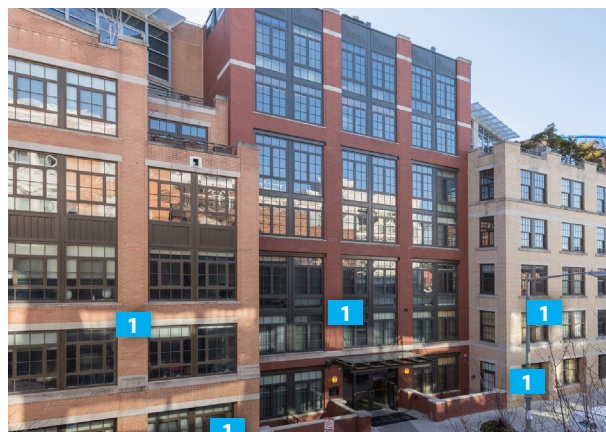
MODULATION AND ARTICULATION OF FAÇADES



Fairfax, VA

Image Credit: EYA Homes

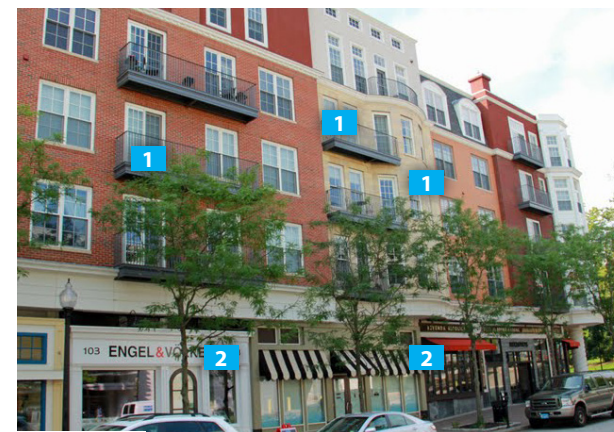
- 1** Variations in façades and materials highlight individual residences and add architectural variety



Washington, DC

Image Credit: Stout & Teague

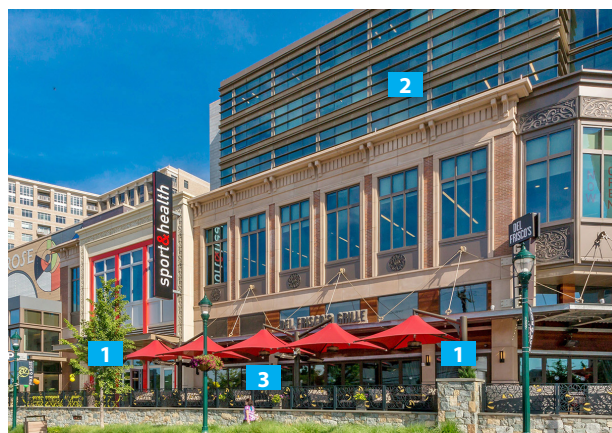
- 1** Variations in wall plane and materials break up the building mass, while creating visual interest and rhythm along the streetscape



West Hartford, CT

Image Credit: Hartford Daily Photo.blogspot

- 1** Variations in façade color and texture (balconies, bay windows) break up the mass of larger buildings
- 2** Retail uses at ground floor distinguished from upper-floor residences by distinctive ground floor design



Rockville, MD

Image Credit: Ruppert Landscape

- 1** Different materials and architectural treatments create vibrant storefronts and differentiate uses
- 2** Upper floors stepped back to reduce building scale
- 3** Outdoor restaurant seating activates the street



Huntersville, NC

Image Credit: Patrick Schneider

- 1** Porches and balconies create vertical interest and add texture to the building frontage



Arlington, VA

Image Credit: Cooper Carry

- 1** Curved face of building and vertical façade variations add rhythm and break up the mass of the building
- 2** Horizontal elements distinguish office building lobby and entrance from upper-floor office uses
- 3** Reflective façade adds individuality and visual interest

Building signs are important because they provide necessary information and can contribute to the identity and character of the area. Attractive, creative, and appropriately scaled building signage enhances area appeal. Signage that is conceived in a comprehensive manner, where all types of building and site signage are designed as part of a family, will prevent sign clutter and provide a cohesive appearance.

In these Guidelines, building signage refers to several types of signs including ground-mounted project identity or monument signs, building-mounted project identity and business signs, pedestrian-scaled blade and awning signs, and window signs, among others. Refer to section 6A ("Signage and Wayfinding in the Public Realm") for additional guidance on signs.

The Zoning Ordinance provides regulations regarding the permitted types, size, and appropriate locations of signs. Most CRDs and CRAs are also located within a Sign Control Overlay Zoning District, which places additional restrictions on the amount and type of allowable signage. Comprehensive Sign Plans (CSP) may be submitted for developments zoned to the Planned Districts to allow for more flexible and creative project-specific signage.

DESIGN PRINCIPLES

Design building signage to animate the public realm. Building signage can be an important component of a lively and animated public realm by adding color, lighting, and style that creates visual interest. At night, the manner in which signs are illuminated can help a building come alive and can play a role in defining the character of the public realm. However, visual clutter and glare due to excessive or overly lit signage is discouraged.

4E BUILDING SIGNAGE

BELOW

Coordinated multi-tenant retail storefronts within a mixed-use building using a range of building-mounted signs
Image Credit: MontgomeryPlanning.org



North Bethesda, MD

DESIGN PRINCIPLES (CONTINUED)

Consider signage in a comprehensive and cohesive manner, balancing compatibility within the overall context a distinctive design.

Developments should ensure that the signage reflects the character of each CRD or CRA, while being distinctive as it relates to the specific development. All signage within a development should be considered in a comprehensive and cohesive manner; variations reflecting of the nature of the individual businesses are encouraged to foster a sense of place. Individual signs should share similar design characteristics, including scale, alignment, and/or placement with other signage in the same development, particularly when it comes

to building-mounted signs. Building-mounted signage should fit with the architectural style and scale of the building. Signage should use materials and colors that are complementary to the building's finishes, and should be incorporated into the architectural elements of the structure.

Design signage so that it functions on multiple scales while minimizing the use of free-standing signs. Signage should consist of both auto-oriented and pedestrian-scaled signs. The use of free standing signs should be minimized, and any such signs should be considered part of the street furniture and be integrated into those other design elements.



North Bethesda, MD

BOTTOM

Properly coordinated building signage and lighting design contributes to the sense of place
Image Credit: Federal Realty

DESIGN STRATEGIES

1 Building Signage Design and Placement

- A. All signage should be well-organized, neat, well-maintained, durable, concise, and legible. Signs should be constructed of durable, high-quality materials that withstand long-term exposure to the elements.
- B. The typeface, characters and graphics of storefront signage should be scaled to pedestrians. Appropriate types of pedestrian signage may include blade signs, awning signage, and sign bands.
- C. Pedestrian blade signs projecting from buildings should be mounted a minimum of 8-feet above the sidewalk grade. Blade signs should project no more than 4-feet from the building façade.
- D. Building identity signs should be sized and placed so that they are legible by both pedestrians and moving vehicles and are appropriate to the scale of the building.
- E. The use of monument signs should be limited, especially where the building can accommodate signage. Pole-mounted signs should not be used.
- F. Building-mounted signs should be placed in architecturally defined areas on the façade where they are framed or delineated.
- G. Window signage should not unreasonably obstruct views from the street to the interior. Permanent or temporary window signs may be considered for a portion of the glazed area of the storefront as long as transparency is maintained for at least 50% of the window. Window decals may also be used to reduce bird collisions so long as designs do not obstruct views.
- H. Building-mounted cabinet signs and display windows may be considered in areas where functional storefronts are not possible or where blank walls exist along pedestrian areas.
- I. Sign lighting can include: back-lighted letters/ halo lettering, front-lighted channel letters, internally-lighted canopy signage, gooseneck spot lights, and other varieties of exterior illumination.



BOTTOM

Multi-tenant signage (building-mounted, canopy, and blade signs) as part of a Comprehensive Sign Plan
Image Credit: Edens

4F

BUILDING LIGHTING

The design of light fixtures on private property in the Building Zone and in the locations within the public realm should complement the street lighting, the other site furnishings, and the architecture of the buildings. Lighting should promote a safe environment while enhancing the character and appeal of the public realm.

Article 14 of the Zoning Ordinance contains the County's Lighting Standards for illumination levels for private property. The [International Dark Sky Association](#) provides guidance on selecting appropriate, full cut-off fixtures.

The following qualitative design strategies should be used to guide choices for appropriate lighting within the Building Zone. Additional design strategies for street lighting are detailed in *Section 2.F.3 ("Street Lighting")*, while the illumination of building signage is addressed in *Section 4E ("Building Signage")* above.

LEFT

Illuminated storefront windows and streetscape lighting help create an appropriately scaled pedestrian environment
Image Credit: Jacqueline Renfrow



Dallas, TX

RIGHT

Building lighting from a number of sources including building-mounted, internal illumination, and bollards
Image Credit: Corey Templeton

DESIGN PRINCIPLES

Incorporate lighting from a variety of sources to highlight architectural details and other site features. A good lighting plan includes light from a variety of sources including fixtures that are building-mounted, located within storefront windows, integrated into canopies and signage, and those that emanate from overhead sources such as string lights, and from the ground including landscape lighting, bollards and steps. Accent lighting is encouraged to highlight architectural details and site features such as specimen planting, public art, and/or signage.

Minimize glare. Illumination should be contained within the site and only full cut-off fixtures should be utilized. Full cut-off fixtures provide light only from the bottom of the fixture and ensure that no light emits upward (above 90 degrees). Shields may be used to control and direct light where desired. Small, intense light sources create glare and should be avoided.



Portland, ME

© Corey Templeton 2015

DESIGN STRATEGIES

1 Lighting Planning

- A. A sitewide photometric plan is encouraged for all developments. Photometric plans are particularly important for sites that are near transit stations, adjacent to existing residential neighborhoods, and urban park spaces.

2 Lighting Fixtures and Technology

- A. All fixtures should use LED bulbs or more advanced energy-saving technologies, if available.
- B. Full-cut off fixtures are required by the Zoning Ordinance to reduce light pollution from parking garages, parking lots, and buildings onto walkways, streetscapes, and streets. Building/wall-mounted lighting, canopy lighting, accent lighting, and other lighting on private property should have a shield that controls the light so that it is focused only on the object that is being illuminated.
- C. Most lighting should use lower color temperature bulbs (3000K or below) for neutral white or warm white color light. The color rendition index (CRI) should be 70 or greater.

3 Lighting Locations and Uses

- A. Lighting should highlight architectural building elements like columns, glass, or towers to promote a dramatic and exciting urban environment at night.
- B. Lighting incorporated into hardscape elements such as steps, railings, and pavement is encouraged.
- C. For safety, lighting should not result in shaded or low-visibility areas that may encourage loitering and crime, particularly at the edges of a site.
- D. Paths, entries, and exits should be lit to facilitate wayfinding. However, lighting should not be so intense that it is unpleasant. 0.5 to 1.0 Footcandle is a general standard for pathway lighting.

- E. Gateways and prominent corners should be emphasized through special lighting designs.
- F. Lighting should be incorporated into public art.
- G. Internal and external storefront illumination should be provided to create an inviting pedestrian environment. Visual interest can be enhanced by highlighting architectural features such as overhangs and canopies.
- H. Seasonal lighting strategies should be considered to enhance the character of place for prominent buildings such as those in shopping districts and for civic uses.



4G LOADING FACILITIES, UTILITIES AND EQUIPMENT

The loading facilities, utilities and equipment that serve buildings include utilities, maintenance equipment, telecommunications equipment and service areas for loading, trash pickup and recycling. Such facilities and equipment can be disruptive to the function and visual appearance of developments if not designed properly. They should be located in a manner that minimizes their impact on the pedestrian and visual environments, including views from adjacent residences or office buildings, while still enabling easy access by utility and service providers. Refer to *Section 2J ("Utilities")* for additional guidance on utilities in the public right-of-way.



RIGHT

Loading, deliveries, and parking entrances for residents and commercial uses co-located at the rear of the property in an alley
Image Credit: Fairfax County

DESIGN PRINCIPLES

Identify and address conflicts with utility and service requirements early in the design process.

It is important to anticipate the locations for utility and service facilities during the conceptual design phase of a development. Understanding utility needs and locational requirements and integrating them appropriately will not only save time during the design and construction process, but will also contribute to a quality development by avoiding the placement of utilities in locations that interfere with aesthetics or conflict with the placement of trees or other site amenities.

Minimize pedestrian and visual impediments.

Utility cabinets and vaults should be located within a building structure or within certain streetscape zones in a manner that avoids creating pedestrian impediments and sight distance conflicts; provides the most attractive streetscape possible; and permits easy access for maintenance.

Conceal equipment and services at the rear of a site or within enclosures.

All maintenance and building equipment and services areas should be located within the building, to the rear of the site, behind buildings, along a service street, or within a parking garage and shielded from public view. Dumpsters should be housed inside enclosures if not located within the building structure. Consideration should be given to consolidating service areas of multiple developments in the interior of a block through the use of cooperative arrangements among landowners.

DESIGN STRATEGIES

1 Location of Equipment and Facilities

- A. The back-of-house functions necessary for the building's function should be located along service streets or interior to the site.
 - i. Locations of wet utilities (water and sewer pipes) may significantly impact the placement of buildings, the size of the Building Zone, or plantings within the Building Zone, and locations for such utilities should be anticipated in the conceptual design of the site. Trees should be planted a minimum of 5 feet from utility easements containing pipes.
 - ii. Dry utilities (electrical and communications lines) should be placed to the rear of the building, under the sidewalk, or in the Building Zone.
- B. A conceptual utility plan should be prepared to designate and organize easements and utility equipment.
- C. Developments should bury all existing overhead utility lines underground.
- D. Utility lines should be co-located in common trenches to the extent feasible.
- E. Dumpsters should be located either within the building or the parking garage, or near loading and service areas.

- F. Access to building loading and trash collection should be located on the portion of the site that is least intrusive to adjacent properties, existing and planned park spaces, and other pedestrian areas. These building services should not be located on streets with commercial storefronts or where loading may impede pedestrian movement.

2 Aesthetic and Noise Considerations

- A. If located external to structures, utility, maintenance and service facilities should be screened so they are not visible from the street, from adjacent properties, or from open spaces.
 - i. Landscaping, screens, fences, walls, or architectural features should be used to conceal ground level equipment.



RIGHT

Co-locate loading entrances from neighboring properties to minimize impact to pedestrian flow
Image Credit: Google Earth

DESIGN STRATEGIES (CONTINUED)

- ii. Materials compatible with and integral to the building architecture should be used to conceal roof equipment or dumpsters; concrete or brick enclosures are preferred to wood, particularly if they are visible from the street.
 - iii. Chain link enclosures are not generally recommended.
- B. Antennas and telecommunications equipment should be flush-mounted or hidden behind screen walls, parapets or other building features. Innovative treatments for incorporating equipment as architectural elements within the structure of the roof are encouraged. Consideration should be given to minimizing rooftop equipment to reduce hazards for birds.
- C. Noise-generating equipment such as air-conditioning units should be located internal to buildings, on rooftops, or away from neighboring properties. If not possible, noise barriers and other means of reducing impacts should be provided.
- D. Loading and vehicle parking entrances should be co-located wherever possible and should be integrated visually into the building to minimize a potential unsightly appearance. Loading and entrance doors should complement the architecture of the building. If facing a public street, always use a driveway apron to raise the

driveway elevation to pedestrian level so that the pedestrian flow is not interrupted.

3 Gas Meters and Regulations

- A. Gas meters and regulators must be installed in an open-air condition. This may include a building alcove or outdoor screened area. A vault with external access may be another option. In certain instances, with permission from the natural gas provider, meters and regulators may be installed within a parking garage (see example photo).

RIGHT
Gas meters are located in an open air area under the building just outside of the parking entrance
Image Credit: Google Earth



Alexandria, VA

4H AUTOMOBILE- ORIENTED USES

As some of Fairfax County's suburban areas transition into a more urban environment, uses that are traditionally designed around the automobile – such as drive-throughs, service stations, and large retail establishments – should be re-conceived to promote a more compact and walkable form of development. In many of the mixed use activity centers, the Comprehensive Plan discourages or has specific recommendations regarding auto-oriented uses.

In general, the design principles and strategies provided in this chapter apply to any auto-oriented uses. In addition, special considerations are provided here for drive throughs, service stations and large retail sales establishments. ***The purpose of this section is not to encourage these uses, but to provide principles and strategies that can result in a more compact, walkable, and desirable form of development.***



Falls Church, VA

DESIGN PRINCIPLES

Auto-oriented uses should be adapted to fit within a more urban, pedestrian-oriented context. This can be achieved by incorporating them into mixed-use or multi-tenant buildings, avoiding standalone, single-use buildings. A more urban form can also be achieved through design techniques such as siting decisions that locate parking and infrastructure to the side or rear of a site; and designing automobile access points to connect to secondary streets or service alleys.

Siting is crucial to accommodating auto-oriented uses within a more compact urban form. The buildings serving these uses should be oriented toward the street and should utilize as much street frontage as possible. Facilities such as gas pumps, car washes, and parking areas should be shielded from view and located at the rear of a site, wherever possible. Generally, such uses should also minimize corporate-branded architecture.



Fort Worth, TX

LEFT

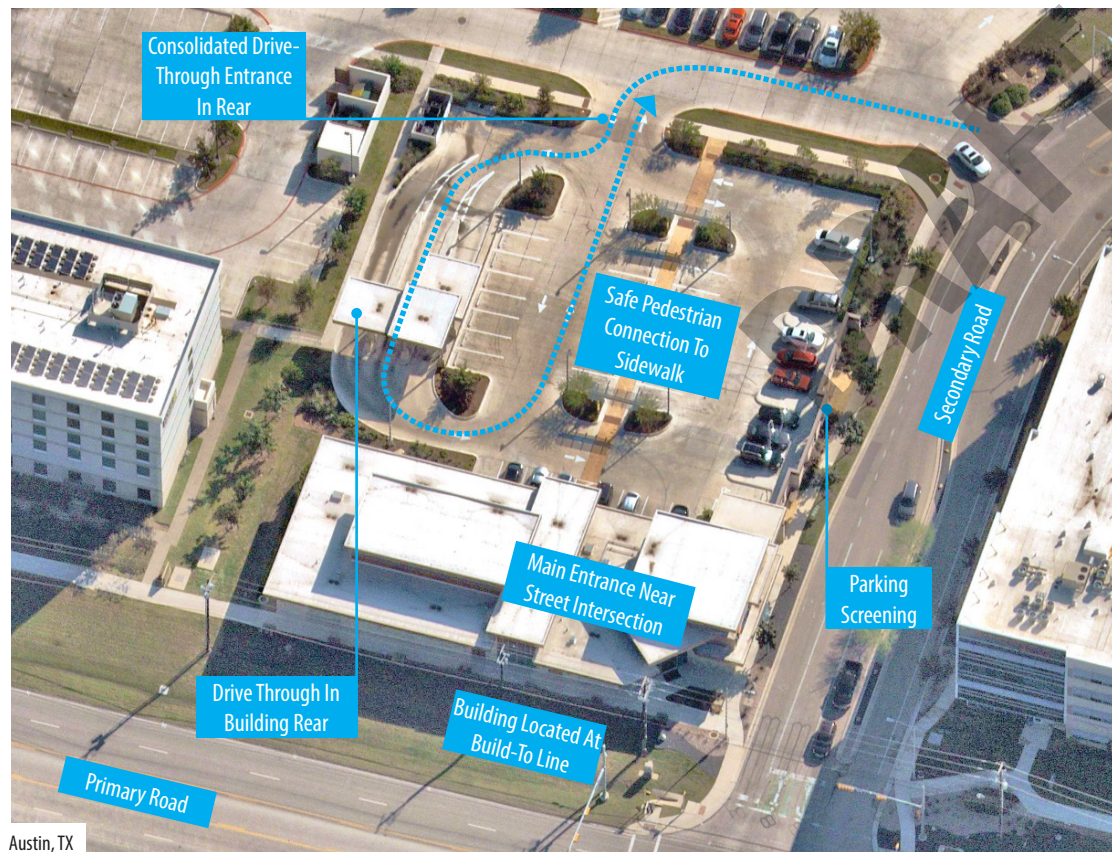
A big box retail establishment fit within a pedestrian-oriented environment
Image Credit: Kip Dawkins Photography

BOTTOM

A gas station convenient store anchors the street corner at a busy intersection
Image Credit: Urbanfortworth via Instagram

4H-A DRIVE THROUGHS

Drive-through uses contain designated outdoor locations to place an order, pick-up, and/or drop-off items to minimize the need for people to exit their vehicles.



A drive-through bank located along primary street frontage with a prominent corner entrance and architectural and landscape screening
Image Credit: Nearmap, Google Streetview

DESIGN STRATEGIES

1 Alternative Approaches

- A. Instead of dedicated drive-through lanes and drive-up windows, designated delivery or pick-up spaces are encouraged. These should be integrated within on-street parking spaces or off-street parking lots located behind buildings.

2 Location and Integration

- A. Prioritize drive-through locations as follows:
 - i. Preference #1: Integrate into larger commercial/mixed-use buildings.
 - ii. Preference #2: Locate within commercial shopping center buildings.
 - iii. Preference #3: Integrate with at least one additional commercial use rather than as a single, stand-alone use.
- B. Stand-alone drive-through uses are discouraged.

3 Site Layout / Organization

- A. Buildings with integrated drive-through facilities should be located at the build-to line along street frontages.
- B. Pick-up windows, order boxes, and service areas should not be visible from public streets. Ideally, these will be located at the back of buildings.
- C. Waiting/queuing lanes/ordering stations/pick-up points:
 - i. Should be integrated into rear or side service alleys, with access provided from the back of buildings.

DESIGN STRATEGIES (CONTINUED)

- ii. Should not be visible from public streets or park spaces.
- D. Multiple drive-through lanes and by-pass lanes should be avoided.

4 Built Form

- A. Building design should align with the Comprehensive Plan vision for buildings/ architecture, as described in the Urban Design section of the Plan. Similar architectural features should be employed on all sides.
- B. Corporate branded architecture and colors should be avoided.
- C. To promote an active street frontage along primary streets, interior seating and activity areas should be clearly visible through front building facades and coordinated with outdoor areas for customer seating and play spaces.



Charlottesville, VA

- D. Canopies over pick-up areas along the building side (covering order boxes or pick-up windows) should be minimal in size and visually unassuming. They should blend in and be integrated into the design of the entire building.

5 Pedestrian Connectivity

- A. The site should include safe and accessible connections from sidewalks to main building entrances.
- B. Vehicle drive lanes and waiting/queuing lanes should avoid crossing pedestrian walkways.
- C. In cases where pedestrian connections across vehicle drive lanes cannot be avoided, a crosswalk with landscaped pedestrian waiting areas on either side of the crosswalk should be provided. Sidewalk/walkway material (e.g. concrete) should be continuous across driveways.
- D. Where possible, pedestrian crosswalks should be raised to match sidewalk grades.
- E. Pedestrian walkways should be separated from drive-through lanes by low-height architectural walls, fences, bollards, and/or landscaping.

6 Landscaping, Screening and Buffering

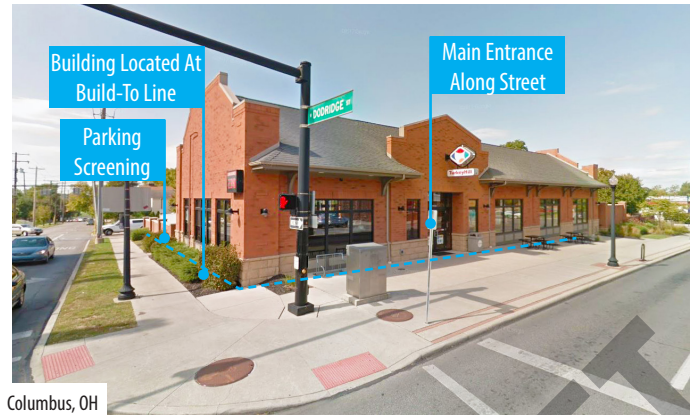
- A. Low-height architectural screens (30"-48"), trees and understory plantings should be provided on both sides of drive-through lanes to guide pedestrians to crosswalks and soften the visual impact of drive-through lanes.

LEFT

A drive-through facility incorporated under an office building that houses a data center and the bank headquarters, on the back side away from the primary street
Image Credit: Stoneking Von Storch Architects

4H-B SERVICE STATIONS

Convenience stores and service stations should be integrated into other uses to the extent feasible. The design of buildings and site elements should reflect local character and the community's vision. Corporate branded architecture should be minimized. Landscaping/screening, canopy design, lighting, and signage should complement the surrounding areas.



A service station and convenience store with architectural features that are consistent with surrounding buildings. This site layout is appropriate for instances in which a service station property abuts non-residential uses at the rear of the property
Image Credit: Nearmap, Google Streetview

DESIGN STRATEGIES

1 Location and Integration

- A. Service stations and related convenience stores should be located using the following order of preference:
 - i. Preference #1: Integrate within commercial buildings.
 - ii. Preference #2: Locate associated buildings such as the convenience store along the primary road's frontage or at street intersections, with the fuel pumps located in a less conspicuous location, such as the side or rear of the convenience store building. Building front doors should be oriented towards both the street and fuel pumps.
- B. Asphalt areas should be minimized. Parking spaces should be located away from streets and should be limited to the minimum required by the zoning ordinance.
- C. Access points should be consolidated and should be no larger than the minimum required width.

2 Landscaping, Screening and Buffering

- A. Continuous street frontage should be provided by locating the convenience store building at the build-to line and/or by including high-quality screening between the streetscape and the site with a combination of raised planters, low walls, green space, street trees, and landscaping.

DESIGN STRATEGIES (CONTINUED)

- B. Service areas, utility boxes, trash enclosures, etc. should be located at the rear of the site and screened by dense plantings or screening walls/fences.

3 Built Form

A. Service Station Canopies

- i. Canopy design and architectural detailing should be consistent with the design of other buildings on the site to ensure a cohesive appearance. Corporate-branded architecture should be avoided.
- ii. Canopy columns should be made of a material similar to the building.
- iii. Sustainable designs and alternative technology within canopy design is encouraged to be creatively integrated. For example, the roof of the canopy can be utilized for the location of solar panels or as a green roof.
- iv. Lighting and signage on the canopy fascia should be carefully designed. Application of corporate colors should be avoided.
- v. Breaking down monolithic canopy structures into a series of smaller canopy structures is encouraged when transitioning to smaller-scale neighboring development.



Washington, DC



Milwaukee, WI

LEFT

A service station integrated into a mixed-use building; canopy design incorporating green roofs and associated planting
Image Credit: Google Maps

RIGHT

A service station convenience store built along build-to lines, with the service pumps behind the building
Image Credit: Google Maps

DESIGN STRATEGIES (CONTINUED)

- vi. The height of the canopy should be limited to 16' from the ground level to the top of the canopy. This height limitation excludes any vegetation/green roof treatment above the canopy.
- B. Convenience Store, Car Wash and Auto-Repair Buildings
 - i. A well-designed pedestrian connection should be provided between the public sidewalk and the building entrance. It should not be located through parking lots.
 - ii. Convenience store building façades that face public rights-of-way should be transparent with glazing on the ground floor for at least

60% of the facade so that increased views of interior activities and displays create interest along the streetscape.

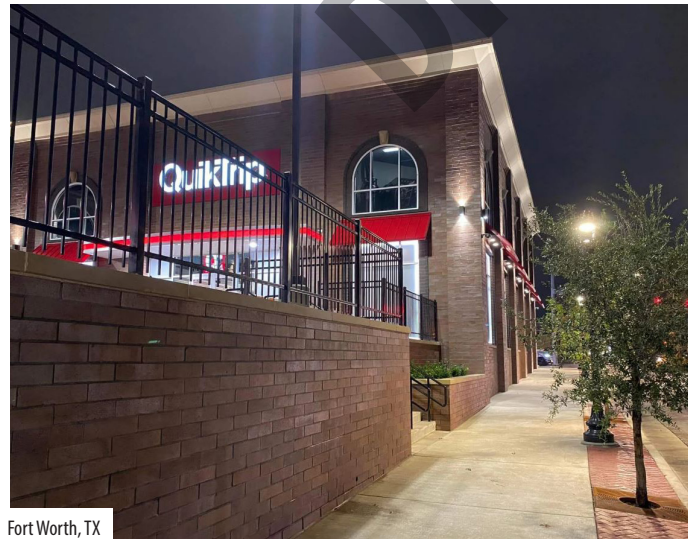
- iii. Service bay locations for car wash and auto-repair buildings should not front major commercial public streets. Service bay doors visible from public right of ways should include high-quality materials with architectural details that complement adjoining commercial/mixed-use buildings.
- iv. Decals and posters should not obstruct views into the store.

4 Signage and Lighting

- A. Free-standing business identity or gas pricing signs should be ground-mounted, monument styles and should include cladding materials that are consistent with the building design
- B. Repetitive usage of, or oversized commercial signage, such as corporate logos on canopies and buildings, should be minimized or avoided completely.
- C. Site lighting (including canopy lighting, corporate signage, and storefront lighting) should minimize light pollution beyond property boundaries, use downward-directed cut-off light fixtures, and be Dark Sky compliant - an outdoor lighting criteria developed by the International Dark Sky Places (IDSP) Program.

BOTTOM

A gas station convenient store anchors the street corner with well defined streetscape and pedestrian scale lighting
Image Credit: QuikTrip via Reddit.com



Fort Worth, TX

DESIGN STRATEGIES

1 Location and Integration

- A. Large retail structures should be located using the following in order of preference:
 - i. Preference #1: Integrate stores into commercial/mixed-use buildings. Building floorplans are encouraged to be subdivided into multiple floors to reduce the building footprint.
 - ii. Preference #2: Co-locate with stand-alone, smaller footprint retail buildings so that they conform to the street grid recommended in the Comprehensive Plan.

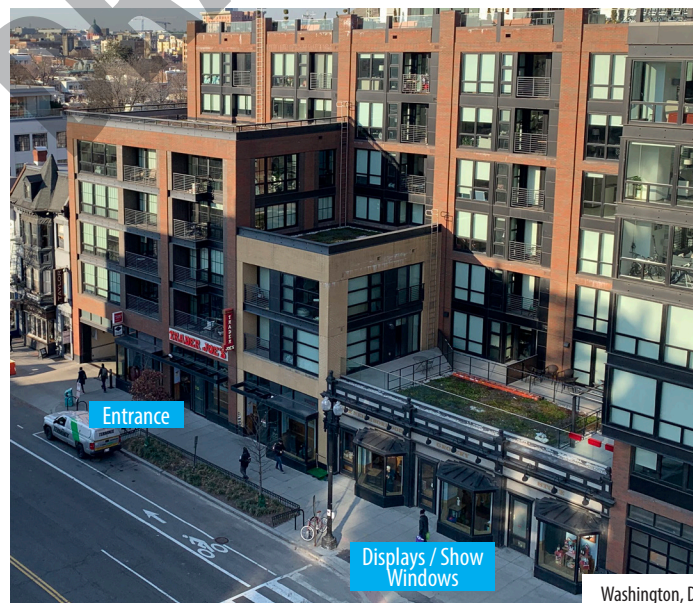


Washington, DC

- B. Large retail stores should have internalized structured parking or, at a minimum, heavily screened and landscaped surface lots that area located to the side or in the rear of the property.
- C. Ground floors should be placed along build-to lines and coordinated with the building façades of adjacent buildings to create a cohesive streetscape environment.

2 Building Character

- A. Building façade forms and material applications should be compatible with desired future character of buildings, and should avoid corporate branding façade treatments.



Washington, DC

4H-C LARGE RETAIL SALES ESTABLISHMENTS

“Large Retail Sales Establishment” applies to retail establishments over 80,000 gross square feet. To the extent feasible, guidance should apply to other large-format retail uses that fall under this size. Large retail sales establishments are convenient but often are sprawling, single-story, warehouse-style formats. However, more urban footprints have begun to emerge. As Fairfax County’s suburban areas redevelop, these types of retailers should have a more urban format and buildings should be of high-quality design that responds to each area’s planned design character.

LEFT

A grocery store integrated within a mixed-use building; a corner entrance is highlighted with architectural awnings
Image Credit: Bright Media

RIGHT

A grocery store with storefront display windows along the streetscape
Image Credit: Wikimedia

TOP

Parking garage access, via stairs, elevators and escalators, are integrated into the building and have special entrance features at the ground level
Image Credit: Wikimedia



Merrifield, VA

BOTTOM

Parking garage and entrance creatively designed to integrate with building form and materiality
Image Credit: Rhodeside & Harwell



Alexandria, VA

DESIGN STRATEGIES (CONTINUED)

- B. Pedestrian access to internalized parking structures should follow with entry feature guidelines in Volume I, Chapter 4C.1: Non-Residential Ground Floors. These entry features can include canopies or awnings or should highlight entrances with special materials and architectural treatments.
- C. Entrances should be located along primary streetscape frontages and not exclusively at internal parking structures or rear parking areas.
- D. Ground floor façades along build-to lines should be, at a minimum, 60% transparent; storefront and clear glass windows should provide views of showrooms, displays, internal activity spaces, and related interior uses from the streetscape.
- E. Parking garage access, loading and related back-of house operations should be located along service streets, or be located interior to the site or underground.
- F. Decals and posters should not obstruct views into the store.

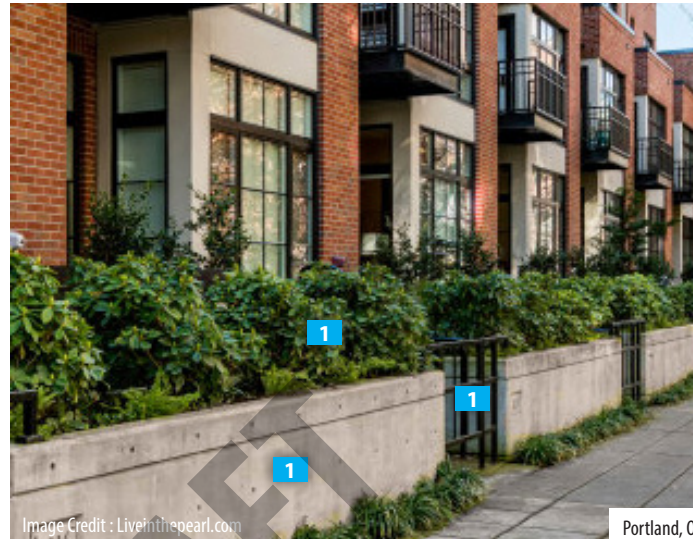
4I TOWNHOMES AND STACKED TOWNHOMES

Townhomes are typically multi-story homes that share side walls with neighboring units, offering a balance between single-family homes and apartment living. Stacked townhomes take this concept further by stacking units vertically, creating a compact, yet spacious design that maximizes land use without sacrificing privacy. Both types of housing promote higher density living, support walkability, and contribute to the urban fabric by fostering more diverse and sustainable neighborhoods. These designs are increasingly popular in redevelopment projects in CRDs and CRAs, where limited space and the demand for affordable housing intersect.

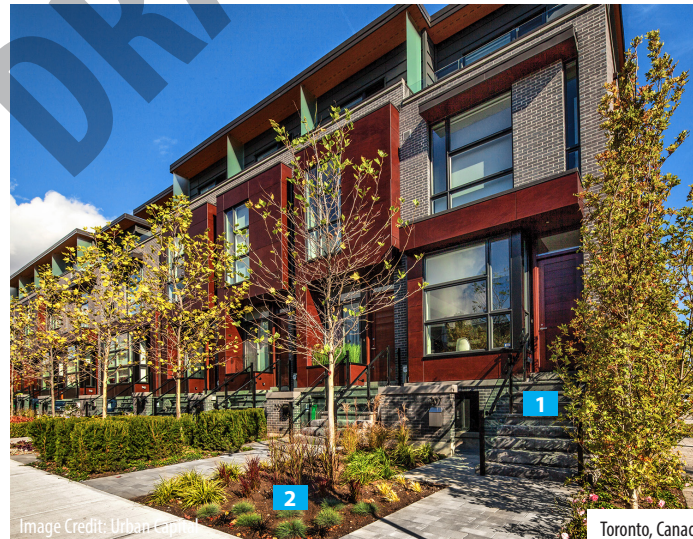
DESIGN STRATEGIES

1 Townhome Setbacks And Front Yards

- A. Townhomes should incorporate landscaping in front setback areas to provide both an attractive streetscape environment and privacy for residents. Landscape elements can include plantings, berms and high-quality walls and railings less than 4-feet in height.
- B. Grade separation should also be used to separate primary entrances from adjoining sidewalk areas, where feasible. The slight elevation can help distinguish private spaces from public ones, creating a more clearly defined boundary for residents. Incorporate front stoops and gardens where appropriate to make entrances more welcoming.



- 1 High-quality architectural walls and plantings screen service areas and provide privacy



- 1 Grade-separated entries provide privacy from street
- 2 Landscaped setback areas create an attractive streetscape environment



Bethesda, MD

Image Credit: Trulia

- 1** Building elements wrapping around to the side at street corners; windows and fenestrations on the side provide relief and interest to building mass



Portland, OR

Image Credit: Pinterest

- 1** Range of building forms along streetscapes on both primary and secondary streets



Alexandria, VA

Image Credit: Mosaicdistrict.com

- 1** Townhomes sited around quality open space serving all residents



Fairfax County, VA

Image Credit: Mosaicdistrict.com

- 1** Façade treatments applied to all street-facing sides of buildings
- 2** Access to alley and service areas framed by building elements and landscaping

DESIGN STRATEGIES (CONTINUED)

2 Townhome Placement And Orientation

- A. Building façades should be oriented toward primary streets and open spaces.
- B. Building façades should be, in general, parallel to the edges of streets, adjoining plazas, and/or open spaces.
- C. The sides of buildings facing primary streets should include doors, canopies, and windows to present a front façade appearance. Side and front building facades and cladding materials should match, specifically where sides are exposed to primary streets or open spaces. Architectural elements should be wrapped around building corners.
- D. Corner units should include windows on both street facing sides, while main entrances should be located on the primary street.
- E. Front façades of buildings should include porches, stoops, windows, and other architectural features to activate ground floor spaces. To promote visual connections between interior and exterior spaces, locate living rooms and other social interior spaces facing primary streets and neighborhood parks/ community open spaces.
- F. When a waiver from privacy yard requirements is requested for rear loaded townhomes, high quality community open spaces should be substituted nearby. Pedestrian access should be provided from open spaces to both streets and adjacent residences.

DESIGN STRATEGIES (CONTINUED)

3 Townhome Modulation

- A. Building step-backs, modulations and materials for townhomes should be consistent with design strategies from the *Building Modulation and Articulation* section of this chapter. In addition, creative façade breaks, use of materials, step-backs, offsets, bay windows and similar forms of building façade treatments are encouraged to increase visual variety and highlight individual units.
- B. Where significant grade differences exist within a block, ground floor elements of contiguous building units or segments of buildings, such as porches, stoops, or fenestrations, should follow the street grade in order to maintain a similar relationship between ground floor elements and adjoining sidewalks along the same block.

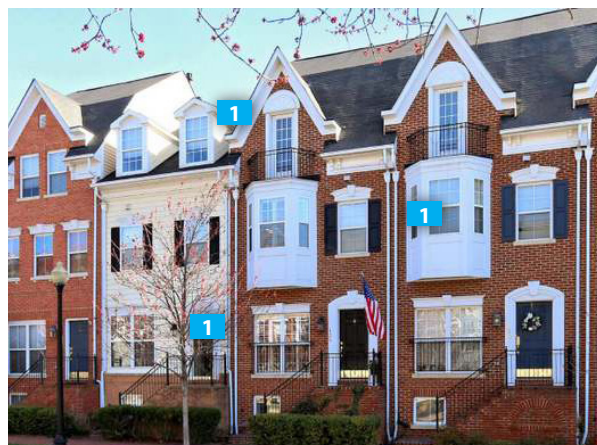


Image Credit : Redfin

Alexandria, VA

- 1** Façade elements such as bay windows, different roof forms and fenestrations add to the range of diverse building elements

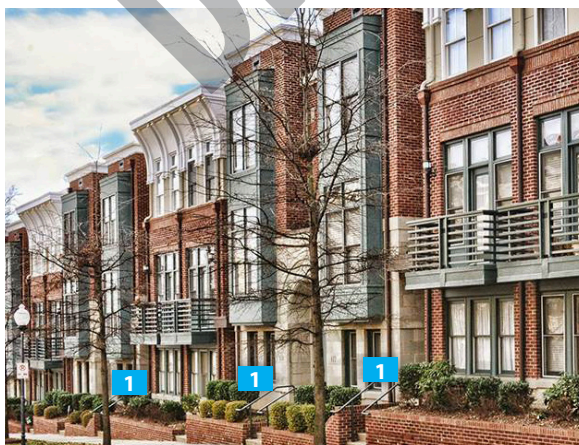


Image Credit: Centercityliving.com

Charlotte, NC

- 1** Buildings follow the street grade to maintain consistent relationship of ground floor elements, such as stoops and fenestrations, with sloped sidewalk areas and site grades

4 Townhome Parking / Garages

- A. Exposed garage doors on the front façades of buildings should be avoided.
- B. Garage and service access should be located behind buildings, with access from secondary streets or alleys.
- C. Garages and driveways between adjacent clusters of townhomes should be consolidated to create larger spaces for planting and to enhance the appearance of the streetscape.
- D. Mechanical and outdoor electrical equipment should be located in the alleys behind the building, if not on the roof of the townhomes.
- E. Garages should be at least 20 feet wide (measured from inside wall to inside wall) if two cars are intended to be parked side-by-side.



Image Credit: Archdaily

Cambridge, UK

- 1** High-quality building materials along alley/service areas framed by landscaping creating an inviting environment