PART II

CHAPTER 12

Design Regulations and Guidelines for Private Development

Sections:

12.1 Purpose

This chapter describes and illustrates approaches to site, building, and landscape elements, signage, and other design elements that are appropriate for private development and redevelopment projects in Downtown Vacaville.

12.2 Intent

The standards and guidelines in this chapter are intended to further the following overarching design principles:

- Build upon those elements that differentiate Downtown from other areas of the city, including its pedestrian-scaled Main Street setting and quaint residential neighborhoods.
- Embrace mixed-use environments.
- Create comfortable, safe, and active spaces for people following the principles of Crime Prevention through Environmental Design (CPTED).
- Develop unique and interesting places through architecture, design, and landscape inspired by Downtown's historic context.

- Ensure a connected, walkable, and healthy environment.
- Establish a sustainable and resilient Downtown.

To meet these principles, development in Downtown is expected to be compact, walkable, and vertical in scale, and to complement adjacent development patterns. The use of quality building materials, appropriate architectural designs, street-forward building orientations, and active pedestrian-oriented ground-floor treatments will reinforce Downtown's character and long-term viability.

Special notes regarding nonconformities:

1. Nonconforming buildings and structures and land that legally existed at the time these standards and guidelines were adopted may continue as legal nonconformities pursuant to Chapter 14.09.220, "Nonconforming Uses, Sites and Structures," of the City's Land Use and Development Code.
2. Any building, structure, or land that was in legal existence and conforming to the City's zoning standards in the district in which it was situated, but was made nonconforming by these standards, may continue to exist as a legal nonconforming use pursuant to Chapter 14.09.220, "Nonconforming Uses, Sites and Structures," of the City's Land Use and Development Code.

12.3 A Safe Environment

The process of designing security into urban environments is known as "Crime Prevention through Environmental Design," or CPTED. It involves designing buildings and site features to reduce opportunities for predatory and property crime. This approach to design is different from traditional crime prevention practice, which focuses on denying access to a crime target with barrier techniques, such as locks, alarms, fences, and gates. CPTED takes advantage of opportunities for natural access control, surveillance, and territorial reinforcement. CPTED standards and guidelines are woven into numerous sections of this chapter and into DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines," and are tagged as "(CPTED)" following the standard or guideline description where applicable. The City seeks holistic solutions for both private and public spaces to create a safe environment in Downtown.

12.4 Application and Organization

This chapter establishes mandatory standards and discretionary guidelines. These standards and guidelines are intended to assist property owners, design professionals, developers, City staff members, and decision makers in the design and review of new development and alterations to existing development. The standards and guidelines identify design elements that in most cases are common to residential, mixed-use, commercial, and other development within Downtown. They focus on form and design; therefore, they should be applied to a project regardless of the type of use.

It is recognized, however, that Downtown Vacaville has a varied character and that some standards and guidelines may not apply to every project or condition. In particular, the more contemporary retail and entertainment centers within the Downtown General Commercial (DGC) District include larger footprint buildings and more auto-oriented uses than other areas of Downtown. As discussed in more detail in DTSP Part II, Chapter 13, "Historic District Standards and Guidelines," there may be special design considerations within the Downtown Historic Preservation District. These variations need to be considered in the design and review of development projects.

Designers are encouraged to use their creativity and local experience to implement innovative, high-quality design solutions aligned with the purpose and intent of the DDSG.

To account for Downtown's varied conditions, each section of this chapter includes both Downtown-wide and zoning district–specific design standards and guidelines, organized as follows:

Downtown-wide Design—This section identifies the regulations and guidelines applicable to all development in Downtown and includes the following information:

- *Design Intent*—The overall vision for the design topic.
- *Design Standards*—Requirements with which compliance is mandatory. Variations to a standard may be approved only as prescribed in Section 14.09.180.060, "Variations in Standards," of the City's Land Use and Development Code.
- *Design Guidelines*—Recommendations that are applied at the judgment of the City. The intent of a guideline may be achieved through alternative strategies.

Zoning District–Specific Design—This section identifies standards and guidelines that are applicable in certain situations in a particular zoning district.

12.5 Site Design

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.5.1 Building Orientation and Siting

Design Intent

Building orientation is an essential element of site design that helps to define pedestrian access and the relationship to the street. In Downtown, buildings should be oriented and sited to reflect the historic development pattern and activate the adjacent streetscape.

Design Standards

S-1 All sites and lots shall have direct frontage to a public street.

S-2 The orientation of buildings shall follow the traditional and historic development patterns of Downtown, with building fronts parallel to the lot lines and the directly adjacent street(s)/sidewalk(s).

S-3 Parking areas shall be easily accessed and located to the rear of the buildings. Locating a parking lot in a side yard may be permitted in limited situations to avoid breaking up the building's street frontage. Refer to DTSP Part II, Chapter 11, "Development Regulations," for standards applicable to parking lot locations.

S-4 Service building entries shall be oriented to parking or service areas.

Design Guidelines

G-1 Buildings adjacent to a plaza, paseo, or other public space should be oriented to that space and should provide direct access to the space when feasible.

G-2 As shown in **Figure 12.5.1-1**, buildings along priority pedestrian frontages (**Figure 12.5.1-2**) should be designed and oriented to create a continuous building wall along the street. Existing paseos or alleys should be retained where possible. Additional pedestrian paseos should be created when feasible, typically within the middle one-third of a block.

G-3 New and substantially modified buildings in the Downtown should be oriented to access and use passive solar energy to the greatest extent possible, except when this conflicts with the historic development pattern in Downtown or creates issues of neighborhood compatibility.

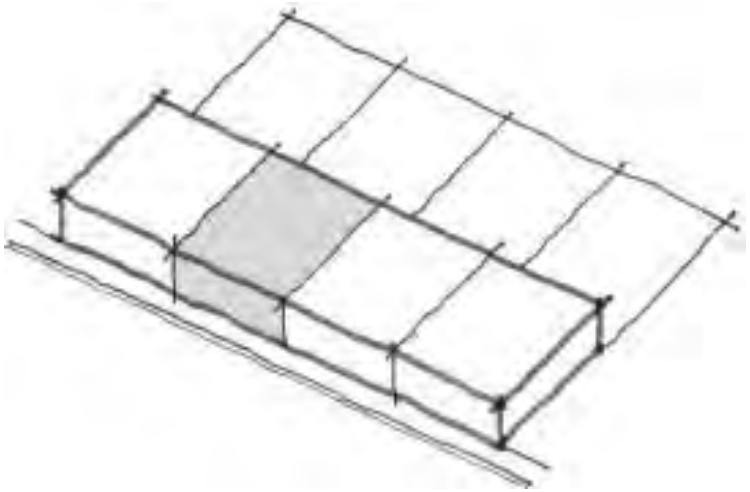


Figure 12.5.1-1: Continuous Street Wall

Buildings are oriented parallel to lot lines and form a continuous street wall along the main street (Source: Jacobs)

Example of a continuous street wall in Downtown Napa (Source: ESA)

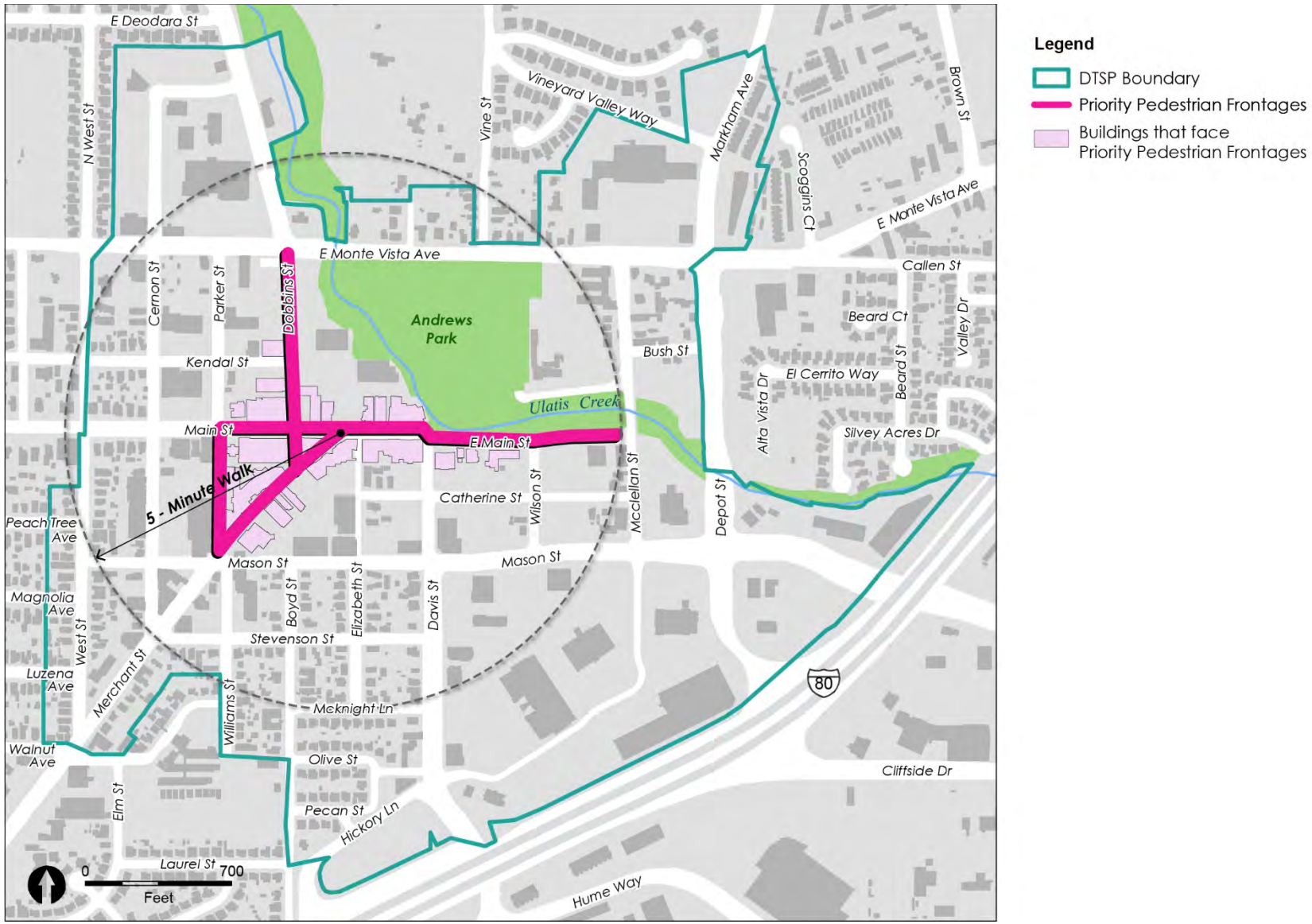


Figure 12.5.1-2: Priority Pedestrian Frontages

12.5.2 Treatments along Streets and Alleys

Design Intent

A build-to line is generally used in urban or downtown settings to define locations where the building façade should be located within a certain distance of the public right-of-way. The street wall may be varied to create usable outdoor public space such as entries, outdoor dining areas, sidewalk seating, public plazas, and other amenities along the public realm. The design intent of setbacks and build-to lines in the context of Downtown is to ensure that buildings are pulled forward toward the sidewalk and street to create a well-defined building edge, consistent with the historic development pattern. Section 12.6 presents specific standards for building façade treatments.

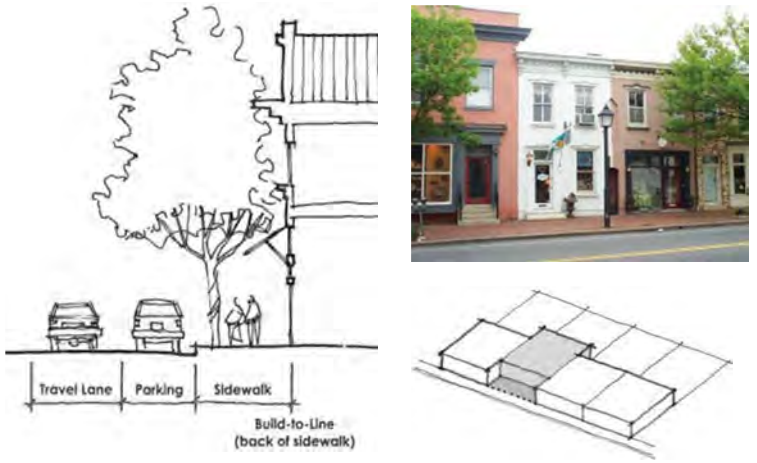


Figure 12.5.2-1: Build-to Line Examples

Examples illustrating that buildings located along a build-to line create a well-defined building edge (Source: Jacobs)

Design Standards

S-1 Buildings shall comply with the building placement requirements specified in DTSP Part II, Chapter 11, "Development Regulations."

S-2 Along all priority pedestrian frontages, buildings shall be sited toward the front and street-side property line and behind the sidewalk (**Figure 12.5.2-1**). A minimum of 70 percent of the front façade of each building shall be constructed up to the front setback to establish a pedestrian-friendly, continuous street wall.

S-3 Façades that front onto a public street shall be built with primary entrances parallel to the public right-of-way. Buildings on street corners shall be set back to create diagonal corner entries.

S-4 Buildings at street corners shall activate both street fronts with transparent windows and doors. Sun-shade may be provided by awnings or overhangs, as mirrored or dark-tinted glass is not permitted on ground floors.

S-5 Buildings with rear alleys shall design windows to provide for visual observation of the alley to promote a safe environment. (CPTED)

S-6 Overhangs, awnings, bay windows, and upper floors shall not project more than, or shall provide a minimum height clearance of not less than, that which is established in the City's Land Use and Development Code.

Design Guidelines

G-1 Along all non–priority pedestrian frontages, buildings should be sited toward the front and street-side property line and behind the sidewalk (**Figure 12.5.2-1**). A minimum of 50 percent of the front façade of each building should be constructed up to the front setback. Multi-unit developments of more than two buildings should be designed with setbacks offset by at least 2 feet to a street wall.

G-2 Buildings with ground-floor retail, restaurant, or café uses should have hardscape surfaces within any setback area, to accommodate active public uses (e.g., outdoor dining).

G-3 Buildings with ground-floor residential uses should have landscaping within the setback area, where applicable.

G-4 Providing overhead cover for pedestrians (e.g., fabric awnings, projections from the building, umbrellas) in a manner that does not interfere with pedestrian or right-of-way travel is encouraged.

G-5 Small, narrow side yards between buildings without a well-defined purpose should be avoided and should not be used as driveways to access parking areas to the rear of buildings. The exception could be a pedestrian paseo per Design Guideline G-2 in Section 12.5.1, "Building Orientation and Siting," as reviewed and approved by the City.

12.5.3 Treatment along Adjacent Uses

Design Intent

A mix of land uses is welcome and expected in Downtown to provide places to live, work, and play. Generally, this mix is harmonious and requires few to no treatments between incompatible land uses. However, in those limited circumstances where nonresidential uses are adjacent to a single-family zoning district, buildings shall be designed and oriented to minimize visual intrusion into adjoining residential properties.

Design Standards

S-1 Nonresidential buildings adjacent to a single-family zoning district (DNL or RL) shall comply with the setback and height requirements specified in DTSP Part II, Chapter 11, "Development Regulations."

S-2 Windows, balconies, and decks shall be located away from the window areas of adjoining residences (on-site or off-site).

Design Guidelines

G-1 For new development or redevelopment, where nonresidential uses are located adjacent to a single-family residential zoning district and are not separated by a street or alley, a 6-foot-tall masonry screening wall facing the residential property should be provided, subject to review and approval by the decision maker.

G-2 Windows in nonresidential and mixed-use projects directly facing adjacent single-family homes are discouraged within 20 feet of the property line of the adjoining residence. Where provided, such windows should be designed as either translucent, louvered, or offset from the windows of existing single-family homes.

12.5.4 On-Site Open Space

Design Intent

Open space shall be provided to improve the overall appearance of Downtown for the enjoyment of residents, visitors, and employees. Open space includes public open space such as planters, plazas, paseos, public art displays (refer to DTSP Part II, Chapter 14, Section 14.4.1), and common open space in private development projects. This section focuses on common on-site open space. Open space within the public realm is addressed in DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines." A variety of open space is encouraged in Downtown to promote gatherings, outdoor activities, and connections to the parks and open space system.

Design Standards

S-1 Public-use open space shall be highly visible from the public right-of-way and accessible to the general public.

S-2 Private common-use open space shall be centrally located and easily accessible to all persons it is expected to serve.

S-3 Multi-unit projects of more than 10 units shall include delineated private common-use open space. For projects of more than 150 dwelling units, at least 1,000 square feet of common-use open space shall be provided.

S-4 Public- and private-use open spaces shall be designed at a reasonable size to provide for their intended function and to create a comfortable outdoor living environment.

Private open space with clear definition between public and private space (Source: Jacobs)

S-5 On-site open spaces designed for public use shall connect to the on-site pedestrian circulation system, public and private sidewalks, and/or multi-use paths, to provide maximum accessibility to all residents and users.

S-6 Windows and entries in adjacent buildings shall be designed and located to provide visual surveillance of public- and private-use open spaces for the safety and security of residents and users. (CPTED)

S-7 Outdoor seating areas, when on private property and visible from the public right-of-way or located on a public sidewalk:

- Are allowed and encouraged as an accessory use/ structure only and shall be architecturally consistent with the primary building they are serving.
- Shall not impede pedestrian activity on sidewalks.
- Shall be enclosed by a perimeter fence and/or wall, which shall be constructed of durable materials such as tubular steel, masonry, landscape planters, and/or a combination thereof, and shall not exceed 36 inches in height with a maximum opacity of 50 percent.
- Shall be maintained in good condition free from damage.
- Shall be subject to review and approval by the decision maker.

S-8 Mature trees shall be maintained, whenever feasible.

Design Guidelines

G-1 Common on-site open space amenities such as pocket parks, paseos, and benched seating areas should be designed to serve the anticipated workers, visitors, and residents.

G-2 On-site open spaces should be designed to take advantage of passive solar orientation, shade in the summer months, and natural breezes, unless there are extenuating conditions that make this infeasible.

12.5.5 Pedestrian and Bicycle Access

Design Intent

Pedestrians and bicycles have priority over automobiles. Facilities shall be designed such that their safety and comfort are addressed. This includes minimizing conflicts along the path of travel, providing clear crossings and adequate lighting, and incorporating amenities for shade, seating, and parking.

Design Standards

S-1 Internal Connections: A system of pedestrian walkways shall connect all buildings on a site to each other, to on-site automobile and bicycle parking areas, and to any on-site open space areas or pedestrian amenities.

1. *To the Circulation Network*. Regular connections between on-site pedestrian walkways and the public sidewalk and other planned or existing pedestrian routes or trails shall be provided. An on-site walkway shall connect the primary building entry or entries to a public sidewalk on each street frontage.
2. *To Neighborhoods*. Direct and convenient access to adjoining residential and commercial areas shall be provided to the maximum extent feasible while still providing for safety and security. (CPTED)
3. *To Transit*. Safe and convenient pedestrian connections from transit stops to building entrances shall be provided. (CPTED)

4. *Bike Parking*. Except in the case of individual locking bicycle lockers and attended bicycle parking, all bicycle parking spaces shall provide a means of securing the bicycle frame and at least one wheel to a securely anchored rack. Where bicycle parking is not visible from the street, directional signage shall be included at the main building entrance.

S-2 Pedestrian paths of travel shall be a minimum of 4 feet wide and ADA compliant.

S-3 Pedestrian walkways adjacent to parking areas and driveways shall have a minimum grade separation of 6 inches.

12.5.6 Vehicular Access, Parking, and Loading

Design Intent

Parking areas should provide vehicular access without compromising pedestrian accessibility or the character of the public realm in Downtown. Downtown parking shall be convenient, accessible, safe, screened from street views, and well landscaped with shade trees to reduce summer heat gain. All parking areas shall be designed in accordance with Chapter 14.09.230.080, "Parking Area Design Standards," of the City's Land Use and Development Code.

Design Standards

Surface Parking Lots

S-1 Projects shall comply with the parking lot location and space requirements specified in DTSP Part II, Chapter 11, "Development Regulations," and the requirements of Chapter 14.09.230, "Parking and Loading," of the City's Land Use and Development Code.

S-2 New surface-parking lots of more than 50 spaces shall be avoided in favor of several smaller parking lots, structured parking, and on-street parking.

S-3 Surface parking lots and structured parking shall be located to the rear of principal buildings whenever feasible (refer to DTSP Part II, Chapter 11, "Development Regulations," and the requirements of Chapter 14.09.230, "Parking and Loading," of the City's Land Use and Development Code). Where parking behind the building is not possible, parking shall be located in an interior lot.

S-4 Access to parking on priority pedestrian frontages (**Figure 12.5.1-2**) shall be evaluated and determined by the Director of Public Works, in coordination with the Director of Community Development.

S-5 Parking lots shall include signage, locations for ingress and egress, and clearly defined pedestrian paths and/or routes.

S-6 Access to buildings from rear or side parking lots or alleys shall be well-maintained and kept clear of obstructions.

S-7 Parking lots, driveways, and walkways shall be consolidated with adjacent sites, whenever feasible, to minimize the number of curb cuts and reduce conflicts with pedestrian and automobile circulation.

S-8 When feasible and in accordance with City standards, driveways into parking lots shall be located on side streets or through the alley system.

S-9 Parking lot lighting shall be in accordance with Chapter 14.09.230.080, "Parking Area Design Standards," of the City's Land Use and Development Code.

Parking Structures

The following provisions are applicable only to private parking structures that may be proposed by a private developer around the expanded Town Center area.

S-10 Parking structures shall be designed with architectural features that complement existing commercial, office, and mixed-use buildings in Downtown.

S-11 All parking structure designs shall include interior lighting within the parking structure and provide safe access and egress routes to or from the parking structure. (CPTED)

S-12 Entry and exit ramps to parking shall be located midblock or toward service areas as reviewed and approved by the Director of Public Works, in coordination with the Director of Community Development.

S-13 Pedestrian entries to parking structures shall be clearly marked and well-lit, and shall open onto pedestrian streets and routes.

S-14 Parking structures shall include signage, locations for ingress and egress, and clearly defined pedestrian paths and/or routes.

Design Guidelines

Surface Parking Lots

G-1 Use of built bioswales for filtration of site drainage is encouraged. Refer to Section 12.7.3 for additional recommendations for low impact development and stormwater management.

G-2 Parking lots interconnected by drive aisles should be separated by landscaped medians, with trees and landscaping planted where feasible. Where trees are planted, the minimum planter width should be 6 feet; 8 feet is preferred.

G-3 The walkability and pedestrian amenities guidelines in DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines,", provide additional recommendations for surface parking design.

Parking Structures

G-4 On priority pedestrian frontages, parking structures should be located behind buildings to minimize visibility from public streets, with a safe and easily accessible pathway from the parking structure to the street front. If this is not possible, parking structures should be designed with retail, office, or other active uses at the street level to avoid monotonous blank walls.

Plant material screening a trash enclosure (Source: Jacobs)

Appropriately screened service area with masonry and steel enclosure that matches the adjacent building (Source: Jacobs)

12.5.7 Mechanical, Service Areas, Utilities, and Storage

Design Intent

Areas used for services shall be designed to protect nearby properties and streets from unsightly, noisy, or other noxious environments. Additional requirements for screening of trash and utility enclosures are discussed further in Chapter 14.09, "Zoning," of the City's Land Use and Development Code.

Design Standards

S-1 To the extent possible, service areas, loading docks, storage areas, trash and recycling bins, and rooftop and ground-mounted mechanical equipment shall be fully screened from view from adjoining properties and public rights-of-way.

S-2 Screening materials shall be substantial and durable, and shall match the architectural character of the parcel. Stucco, wood fencing, or cyclone fencing is not permitted. Screening plant materials shall be evergreen to provide an effective year-round screen.

S-3 Evergreen vines, evergreen shrubs or trees, or decorative walls or fences shall be used to screen mechanical equipment, loading areas, and other service areas.

S-4 Roof-mounted satellite dishes and antennas shall be placed as far back from the front roofline as possible and shall not be visible from public streets.

S-5 Utility equipment such as boxes, meters, transformers, and panels shall be installed on secondary building façades instead of primary building façades.

S-6 All development that does not provide trash disposal in an indoor common disposal area, or where each unit or tenant does not have their own receptacle, shall comply with the provisions of Section 14.09.060.060 (I), "Trash Enclosures and Recycling Areas," of the City's Land Use and Development Code.

S-7 Outdoor storage shall be permitted only as provided in Chapter 14.09.200.090, "Outdoor Storage," of the City's Land Use and Development Code.

S-8 Screening materials shall be substantial and durable, and the screening shall be well-designed. Primarily evergreen plantings shall be used, to provide an effective year-round screen.

S-9 Electrical transformers and similar utility structures shall be undergrounded or placed away from the entrance of the site. If undergrounding is infeasible due to preexisting site conditions such as a high water table and other underground utilities, the facility shall be enclosed within the building or adequately screened from the view of any public right-of-way.

Design Guidelines

G-1 To the extent possible, all building-mounted equipment, such as louvers, pipes, overhead doors, service doors, access ladders, downspouts, conduit, and electrical service boxes, should be painted a color that is consistent with the building's color scheme to blend into the background of the structure or site, unless such equipment is specifically intended to be an architectural element of the building design.

G-2 To the extent possible, trash receptacles should be centralized and located in the rear of buildings, with alley access provided for sanitation and recycling trucks. Any structure enclosing these receptacles should be of a similar color and material to the primary building it is serving.

G-3 Whenever feasible, areas for collecting and loading recyclable materials should be adjacent to the solid waste collection areas.

G-4 Loading areas should be accessible from side streets or alleys rather than from the front of buildings, where feasible. Such areas should be functionally separated from parking and pedestrian walkways for safety and should provide convenient access for delivery trucks. (CPTED)

G-5 Commercial storage areas should be screened from exterior views from streets and adjoining parcels by one of the following methods:

1. A minimum 8-foot-wide landscape planter surrounding the commercial storage area.
2. A minimum 6-foot-high masonry concrete wall to provide vertical screening.

All screening plant materials must be irrigated in accordance with Chapter 14.27.030.070, "Irrigation Design Plan," of the City's Land Use and Development Code. The exterior treatment of the wall shall match the architectural character of the parcel.

G-6 When publicly visible, exterior trash and storage areas, service yards, loading docks and ramps, electric and gas meters, irrigation backflow prevention devices, etc., should be screened from view, using landscaping and/or architectural elements that are consistent with the project design.

12.5.8 Zoning District–Specific Design

Reserved for future use.

Side Yards

Side yards are not preferred in the DC District. If reviewed and approved by the decision maker, side yards shall be of sufficient width to create usable space between buildings.

Outdoor Storage

Table 12.5.8-1 summarizes applicable zoning district–specific regulations governing outdoor storage.

TABLE 12.5.8-1: OUTDOOR STORAGE REGULATIONS

District	*Outdoor Storage Permitted:*
DNL, DNM, and DNH Districts	Permitted as an accessory use where it: • Occupies less than 200 square feet; • Is located outside of all required setbacks, parking and circulation areas, and landscaped areas; and • Is not visible from a public right-of-way.
DC, DMX, and DGC Districts	Not permitted. (All storage must be located within an enclosed building.)
DPF District	Permitted as an accessory use where it: • Is located outside of all required setbacks, parking and circulation areas, and landscaped areas; and • Is screened with a minimum 6-foot-high solid fence or wall.
OS District	Not permitted. (All storage must be located within an enclosed building.)

Downtown General Commercial

The more contemporary retail and entertainment centers in the DGC District include larger footprint buildings and more auto-oriented uses than other areas in Downtown. As a result, it is recognized that some of the development standards and guidelines in this chapter may not apply to every project or condition in the DGC District. The standards and guidelines should be applied to the extent applicable and feasible. As these sites become denser through redevelopment, it is the intent of the DDSG to move the development patterns toward the other standards and guidelines noted herein. For instance, as existing surface parking lots are reclaimed as development sites, these spaces should attempt to shift buildings toward the adjacent public streets to create a pedestrian-oriented development pattern similar to historic Downtown.

Downtown Historic Preservation District Overlay

Additional standards and guidelines for the Downtown Historic Preservation District Overlay are provided in DTSP Part II, Chapter 13, "Historic District Standards and Guidelines."

Development Prototypes

Additional standards and guidelines for development prototypes are provided in DTSP Part II, Chapter 9, "Development Prototypes."

12.6 Building Design

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.6.1 Building Height, Massing, and Scale

Design Intent

The size and scale of buildings should be compatible with existing development in Downtown and should ensure a human-scaled environment. To ensure compatibility with existing development in Downtown, new developments should appear similar in massing and scale, appropriate to their location. New buildings and additions to existing buildings should generally fall within the height range of existing buildings along each block. Larger scale buildings containing blank, uninteresting, and unappealing street facing walls shall be avoided. Most commercial buildings in Downtown are one or two stories high, with a high floor-to-ceiling measurement (typically 15 feet or more). Building parapets on one-story commercial buildings create the illusion of higher buildings and help to create the sense of street enclosure along the commercial street.

Design Standards

S-1 Buildings shall comply with the height requirements specified in DTSP Part II, Chapter 11, "Development Regulations."

Design Guidelines

G-1 Larger-than-average buildings on the same block should break up the mass of the structure with articulation of the structure into smaller components to maintain the traditional human scale.

G-2 Architectural treatments such as building setbacks, cornice lines, parapets, and header and sill details on upper-story windows, as well as bay windows, should be used to break up the massing of building façades.

G-3 Doors, windows, awnings, and detailing should be considered, as they can reduce the appearance of building mass where an otherwise blank wall may exist.

G-4 New, higher buildings can reinforce the established building heights along a block by stepping back upper floors that are above the average building height for the street. For the Downtown area, this setback should occur starting with the third floor. For additional stepback regulations, refer to item 6 in Section 11.4, "Supplemental Development Regulations," of DTSP Part II, Chapter 11, "Development Regulations."

G-5 Buildings on corner lots provide an opportunity for the use of building elements that exceed the average height on the block and that serve as a focal point/gateway entrance for the block.

G-6 Architectural features such as display windows, pilasters, lattices, and alcoves for product display can provide visual relief to buildings that cannot achieve continuous openings along the street and sidewalk, and shall be utilized.

12.6.2 Building Materials, Finishes, Textures, and Colors

Design Intent

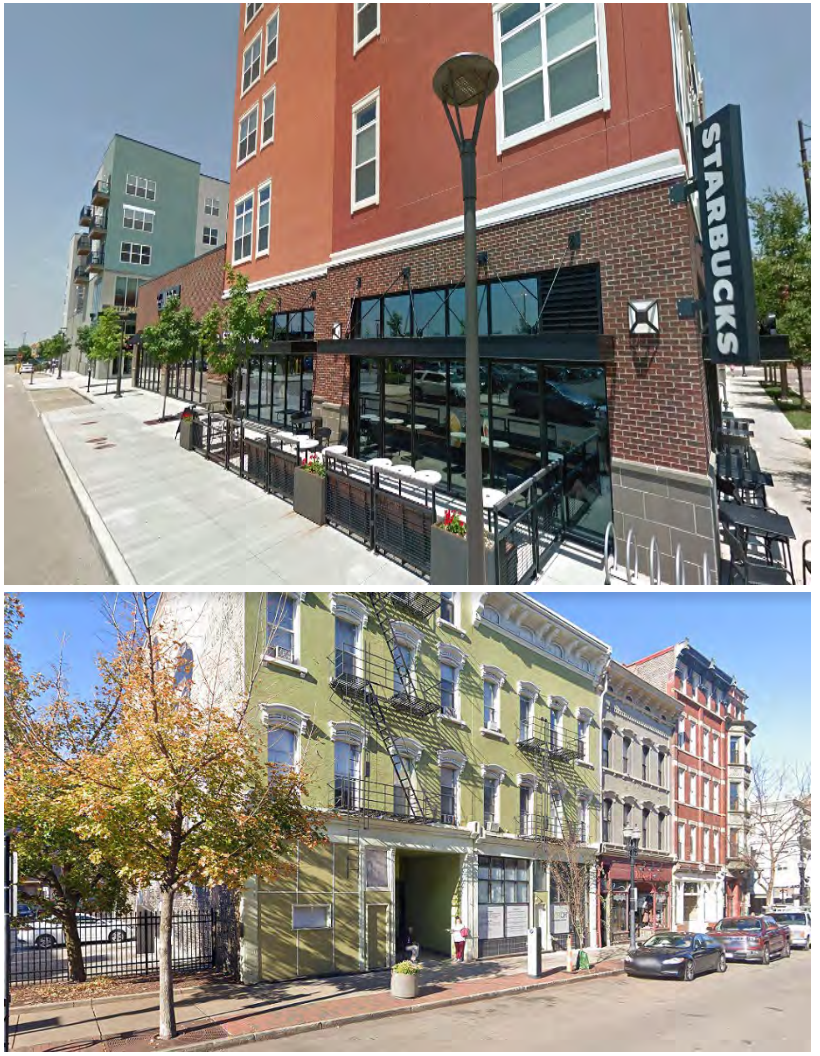
Buildings should be constructed with high-quality materials that are durable and enhance the building's character, particularly on the ground floor, where people are most likely to come in contact with the building and can easily see and touch the materials. Color should be used in a way that complements the colors of the surrounding structures, including color palettes from surrounding buildings; adds to the liveliness and character of Downtown; and, where applicable, appropriately reflects Downtown's historical character.

Design Standards

Materials, Textures, and Finishes

S-1 Exterior finish materials shall consist of stucco, wood siding, dimensional profile metal architectural siding, fiber cement products, stone, and/or brick. Exterior finish materials not permitted are vinyl, synthetic wood, grooved plywood, exposed concrete block, glazing with mirror finishes, sprayed-on/ textured stucco and raw, raised grain, or rough sawn wood.

S-2 A combination of building materials shall be used with a minimum of two materials on any building frontage, in addition to glazing and railings.



Building colors complement the natural materials such as brick and stone found on the building façades (Source: Jacobs)

Colors

S-3 Fluorescent, neon, and Day-Glo colors are not permitted.

S-4 Contrasting accent colors are required for architectural details, awnings, and entrances.

S-5 Colors shall be selected with consideration for the orientation of buildings and the historical character of Downtown. Because of sun exposure, colors on south- and west-facing façades will often appear warmer than the same colors on the north or east sides.

S-6 The applicant shall submit a color palette for review and approval.

Example of appropriate building materials—brick and steel (Source: Jacobs)

Design Guidelines

Materials, Textures, and Finishes

G-1 Use of materials commonly found in the historic Downtown is encouraged. Stucco, brick, stone, terra-cotta, and tiles are common in historic Downtown Vacaville and shall be considered.

G-2 In buildings on which more than one material is used, the "heavier" material should be placed below the "lighter" materials (e.g., curtain wall, wood siding, glass window wall, or tile upper story over a brick or stone base).

Colors

G-3 Use of color as primary and/or secondary building colors is encouraged. More vibrant and/or bold colors should be used as accents rather than as the building's primary colors. Solutions should include both façade articulation and changes in color.

12.6.3 Architectural Elements

Design Intent

Architectural elements include the treatment of building façades and help create the interface between the building face and the public realm of the street. The historic area along Main Street has a pedestrian-friendly scale of building façades that vary from 1½ to three stories in height. This building pattern creates a regular rhythm of 20- to 50-foot building widths that humanize public walkways and make it comfortable to stroll along the street. The pattern and rhythm of architectural elements such as window openings, commercial display windows, frequent building entries, ornamentation, awnings, and canopies also contribute to the historic urban streetscape and a comfortable pedestrian experience. This relationship between buildings and the public realm is desirable and should be replicated wherever possible in the Downtown.

Design Standards

Building Façades

S-1 All elevations visible from the public right-of-way shall be designed as building "fronts" with similar building materials, colors, and architectural treatments.

S-2 Blank walls (façades without doors, windows, or landscaping treatments) that are more than 30 feet long and front on a public street or a public open space are prohibited.

S-3 Buildings fronting on a public street shall have massing breaks that maintain the proportions and spacing of openings on the block, typically every 20–50 feet. Massing breaks shall include the use of varying setbacks, building entries and recesses, windows, courtyards, or structural bays. Such breaks shall be a minimum of 18 inches deep and 4 feet wide.

S-4 Buildings on wider lots shall maintain the rhythm of the front façades by breaking the building's façade into small increments of window displays and entries or a change in the building plane, stepping portions of the façade in or out, or changing types or colors of materials. Such façade rhythm shall be maintained in increments of 20–30 feet.

S-5 Horizontal and vertical elements shall be used to articulate a building façade and create a top, middle, and base to give definition to the building and break its elements down to a more human scale. Building proportions used in new construction or additions shall be consistent and compatible with the proportions of buildings in the surrounding block.

S-6 Doors, windows, floor heights, cornice lines, signage, porches, posts or columns, dormers, gable roof elements, wainscoting, shutters, window boxes, awnings, and similar elements shall be used along elevations fronting on a public street to reduce the mass of buildings, create visual interest, and enhance the pedestrian experience.

S-7 Retail and mixed-use building façades facing the street shall be lined with windows, entries, and openings that provide indoor and outdoor views to public rights-of-way and sidewalks. Such entries and openings shall consist of at least 60 percent of the building façade and shall be a height between 2½ and 10 feet above the level of the sidewalk.

S-8 Attainable units and market rate units in the same development shall be constructed of the same or similar exterior materials and details such that the units are not distinguishable.

Reductions

S-9 The building transparency requirement may be reduced or waived by the decision maker upon finding that:

1. The proposed use has unique operational characteristics with which providing the required windows and openings is incompatible, and
2. Street-facing building walls will exhibit architectural relief and detail and will be enhanced with landscaping in such a way as to create visual interest at the pedestrian level.

Example of a variety of building rooflines, forms, shapes, and heights (Source: Jacobs)

12.6.4 Roofs and Parapets

Historically, building roofs in Downtown used flat roofs, or pitched or arched roofs hidden behind a parapet. Parapets are often capped with a cornice and provide space for wall-mounted signs. Residential buildings are generally provided with steep-sloped roof forms and articulated with dormers, parapets, and varying shapes and heights. These characteristics shall continue with all new construction.

Design Standards

S-1 Variation of rooflines and a variety of roof forms, including flat roofs or sloped roof forms, is appropriate in Downtown. In general, nonresidential uses shall use a flat roof and residential uses shall use either a flat roof or a sloped roof.

S-2 Rooflines shall be vertically articulated at least every 50 feet along the street frontage, through the use of architectural elements such as parapets, varying cornices, reveals, clerestory windows, and varying roof heights and/or forms.

S-3 Building façades shall have a bottom, middle, and top layer of design elements, with articulation at the opening and near the roofline as shown in **Figure 12.6.4-1**.

S-4 Free-form and geometric roof shapes, including mansard roofs, shall not be permitted.

S-5 For flat roofs, cornices must be provided. Cornices shall project a minimum of 6 inches and a maximum of 12 inches.

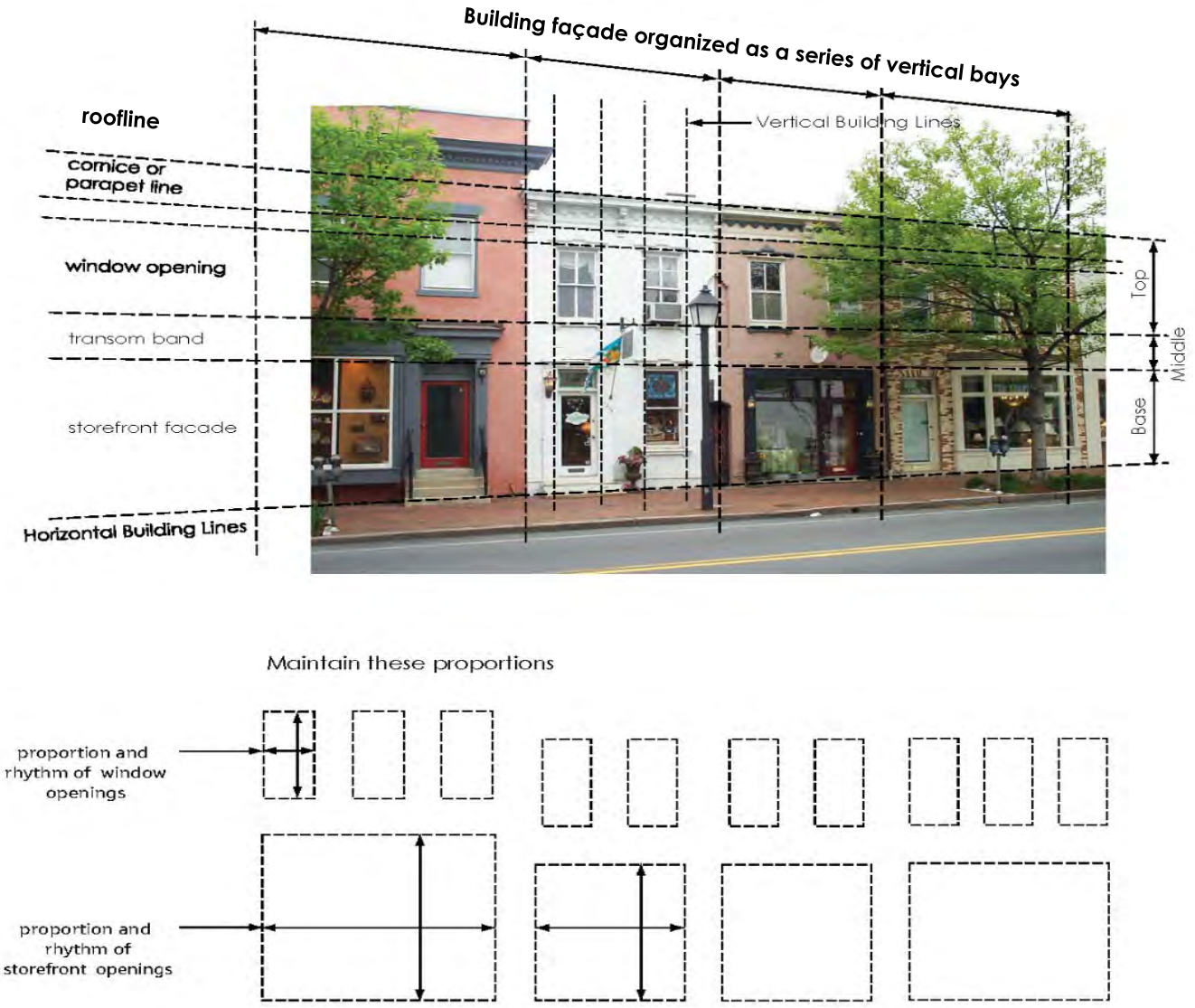


Figure 12.6.4-1: Illustration of Façade Rhythm

S-6 Residential sloped roofs shall be steeply pitched with multiple shapes and variations. The use of dormers, special corner design elements, and varying roof heights to break down the massing of the roof form is appropriate.

S-7 Roof-mounted equipment shall be fully screened from adjoining properties and public rights-of-way and/or integrated into the roof design.

S-8 Roof materials in view of the public streets shall be of high-quality, solid materials such as tiles, metal, and terra-cotta.

Design Guideline

G-1 "Green roofs" are encouraged and may be used in lieu of any other roofing materials if reviewed and approved by the decision maker.

12.6.5 Windows, Bays, and Storefronts

Design Intent

Placing windows and doors along a street frontage is one of the best methods of creating visual interest in a building and encouraging an active environment. Storefront windows at the street level can be used to allow pedestrians to see into the structure and improve visual surveillance of the area outside of the building. For commercial buildings, windows allow goods and customers to be viewed, thus creating interaction between the building and the public realm.

Design Standards

S-1 Windows, entries, and doors shall occupy the wall surface in the ground-floor retail and office spaces along priority pedestrian frontages. Retail display windows and entries shall occupy at least 60 percent of the ground-floor building façade.

S-2 Buildings shall follow the historic use of windows, in which windows were rectangular and vertically placed on the building façade.

S-3 Headers, trims, and sills of windows of new buildings shall be well-articulated in design, dimensions, and patterns of historic Downtown architecture. Building façades of the Downtown Core (DC) District follow a consistent pattern of building lines at each floor level, along the eaves of roofs, at the building base on the ground level, and following common windowsill heights (**Figure 12.6.4-1**).

S-4 Storefront windows shall be made of clear glass to allow pedestrians to see into the structure and allow interior users to see out onto the street. A minimum of 60 percent visible light transmittance is preferred. Mirrored, smoked, or dark-tinted glass is not allowed. Interior-lighted storefronts are encouraged in the evening hours to provide additional lighting to the sidewalks, increasing safety and security at night. Signage should not cover more than 20 percent of the window surface area. (CPTED)

S-5 Long, continuous ribbon windows are not permitted.

S-6 Windows shall not be made completely opaque by signage or other application treatments. However, interior sunscreens or blinds shall be permitted.

Design Guideline

G-1 Windows with articulated mullions and true divided lights are encouraged.

12.6.6 Doorways and Entrances

Design Intent

The entry features of buildings should be clearly visible to pedestrians, with a defined relationship to the street and sidewalk. Recessed entries help break up a building's massing and can make the entry threshold more immediately apparent to pedestrians. In residential areas, raised stoops and porches help provide a small separation and sense of privacy between the private residence and the public realm along the sidewalk. Considerations shall be given to universal accessibility standards, where applicable. Decorative features such as awnings, canopies, lighting, and signage can also be used to clearly define and articulate an entryway.

This section shall align with Section 12.5.2, "Treatments along Streets and Alleys," as it relates to site design.

Design Standards

Commercial and Office

S-1 The main entrance of a building along a street-edge façade shall open directly onto a publicly accessible walkway that connects directly into adjacent street sidewalks. An entry foyer or landing may be inset into the building façade to prevent doors from opening onto and blocking the public way. Buildings with two frontages at a corner should provide a common entrance. (CPTED)

S-2 Primary entries shall be located on the primary façade of the building facing a public street and shall provide clear and visible pedestrian access.

Corner entries are clearly defined with a unique massing form and articulated with signage, awnings, and lighting (Source: Jacobs)

S-3 At mixed-use buildings, entrances to residential, office, or other upper-story uses shall be clearly distinguishable in form and location from retail entrances.

S-4 Commercial and mixed-use street frontage longer than 150 feet shall include multiple pedestrian entrances for accessing the businesses or residences in the building. The maximum distance between building entrances along the same frontage shall be no more than 75 feet.

S-5 Windows and entries of ground-floor storefronts shall be compatible with the pattern of retail buildings in Downtown in the neighborhood in which it is located. Historic storefront windows include larger retail window displays and entries with overhanging awnings, a tile base, and a transom with a sign frieze above. Retail storefronts extend the length of the building façade and are approximately 40–50 feet wide. Wider buildings (100 feet wide or more) shall break up the façade length into smaller segments with building columns or pilasters, consistent with the pattern of the commercial block.

S-6 The size of the entry shall be proportional to building size.

S-7 New buildings in Downtown shall include details such as sidelights, transoms, columns, and pediment trim that are often inset and embellished on traditional entries.

S-8 Entries shall be clearly defined with signage and architectural details.

S-9 A Knox key box shall be located adjacent to the front door of the new building. An application is available at the Vacaville Fire Department's Administrative Office. The applicant shall submit the application promptly to avoid delays in occupancy.

Residential

S-10 Primary residential entryways shall be located on major sidewalks to provide clear and visible pedestrian access.

S-11 The size of the entry shall be proportional to building size.

S-12 New residential buildings in Downtown shall include trim that is often inset and embellished on traditional entries.

Design Guidelines

Commercial and Office

G-1 Secondary entries for commercial and office buildings may be located at the side or rear of the building to provide access from parking areas.

Residential

G-2 Secondary entries for residential buildings may be located at the side or rear of the building to provide access from parking areas.

G-3 Residential mixed-use projects, townhomes, and apartments should provide multiple entries, stoops, and/or porches along the streets whenever possible. Multiple entries to ground-floor flats and townhomes improve the sense of safety and security along the street and help to activate the public realm. (CPTED)

12.6.7 Canopies, Awnings and Arcades

Design Intent

Canopies, awnings, arcades, and other overhangs are traditional elements of commercial design that articulate the building façade and create variety and interest at street level. They also provide space for signage, shade windows during the summer to reduce energy use, protect pedestrians from the weather, and provide an opportunity to add color and visual interest to the building.

This section shall align with Section 12.5.2, "Treatments along Streets and Alleys," as it relates to site design.

Design Standards

S-1 Canopies, awnings, and arcades shall be designed with respect for the size, shape, and placement of the building, unless a unique architectural style encourages something different.

S-2 Canopies and awnings shall fit within individual bays or structural divisions of the building façade, rather than extending beyond a single bay, unless the building structure dictates an alternative placement. In no case shall these features exceed a maximum of 6 feet of depth from the building face.

S-3 Canopies and awnings shall only be internally illuminated where appropriate to the architectural style of the building.

Design Guidelines

G-1 The use of canopies, awnings, arcades, and overhangs over window displays and entries along the public sidewalk on the ground floor of commercial buildings is encouraged. In no case, however, shall these features interfere with pedestrian or vehicle access in the right-of-way or affect ADA requirements. These features shall be properly maintained in good and functional condition at all times.

G-2 A variety of solid- and stripe-colored awnings may be considered.

G-3 Canvas, fire-resistant acrylic, and metal are preferred materials for awnings. Vinyl, plastic, plasticized fabric, fiberglass, and glass awnings should not be considered.

G-4 Awnings, canopies, overhangs, bay windows, and miscellaneous entry features may project into the front public right-of-way, provided that they meet the minimum clearance requirements of the City's Land Use and Development Code.

G-5 Canopies and awnings should be designed to provide window shading to reduce energy use.

G-6 Awnings and canopies may contain signage, as applicable, that complies with Chapter 14.09.260, "Signs," of the City's Land Use and Development Code.

12.6.8 Building Additions and Renovations

Design Intent

Building additions and renovations shall consider the design context, building materials, and colors of both the existing building and the surrounding properties to ensure their compatibility.

Design Standards

S-1 Building additions and renovations shall follow all applicable requirements of the California Building Standards Code and the Green Building Code, as adopted by the City.

Design Guidelines

G-1 Materials and paints used should complement or be of the same color as or a similar color to the existing building.

G-2 Architectural design features should complement or be of the same design as the existing building.

12.6.9 Green Building Design

Design Intent

"Green building" refers to both a structure and the application of processes that are environmentally responsible and resource-efficient throughout a building's life cycle—from planning to design, construction, operation, maintenance, renovation, and demolition—considering energy use, water use, indoor environmental quality, material selection, and the building's effects on its site.

Design Standards

S-1 Building additions and renovations shall follow all applicable requirements of the California Building Standards Code and the Green Building Code, as adopted by the City.

Design Guidelines

G-1 Natural climate control features, such as roofs with larger overhangs and trellises or deciduous trees over south-facing windows, are encouraged to reduce energy demand.

G-2 The use of windows to provide natural light indoors as much as possible is encouraged. Windows should be placed for cross-ventilation and airflow to promote natural cooling.

G-3 Building materials that are less hazardous and/or are made from recycled materials are encouraged.

12.6.10 Zoning District–Specific Design

Reserved for future use.

Downtown General Commercial

The more contemporary retail and entertainment centers in the DGC District include larger footprint buildings and more auto-oriented uses than other areas of Downtown. As a result, some of the development standards and guidelines in this chapter may not apply to every project or condition in the DGC District. The standards and guidelines should be applied to the extent applicable and feasible. As these sites become denser through redevelopment, it is the intent of the DDSG to move building design toward the other standards and guidelines noted herein.

Downtown Historic Preservation District Overlay Guidelines

G-1 Additional standards and guidelines for the Downtown Historic Preservation District Overlay are provided in DTSP Part II, Chapter 13, "Historic District Standards and Guidelines,"

Development Prototypes Guidelines

G-2 Additional standards and guidelines for development prototypes are provided in DTSP Part II, Chapter 9, "Development Prototypes."

12.7 Landscaping

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.7.1 Landscaping and Buffer Areas

Design Intent

Landscape design should consider the level of maintenance and pest management that will be required to sustain the landscape. Designs should be aesthetically pleasing, low maintenance, water conserving, and maintained using an integrated pest management approach.

Design Standards

Planting and Ground Covers

S-1 Street trees shall be installed with all projects fronting on a public street.

S-2 All unpaved areas shall be planted with irrigated plant materials.

S-3 Streetscape elements such as lights, trash cans, benches, tables, bicycle racks, landscaping, and irrigation shall not be located within the public right-of-way, unless they are approved by the decision maker. Refer to DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines," for more information.

Install low-maintenance vegetation (Source: ESA)

S-4 Landscape and utility plans shall be coordinated. All utility lines, vaults, overhead lines, fire hydrants, and streetlights shall be indicated on landscape plans to avoid potential conflicts.

S-5 When locating trees, their canopies should be maintained to ensure a minimum of 10 feet of clearance from the ground on the pedestrian side (higher along equestrian trails) and a minimum of 15 feet from the ground on the vehicular side. Because small trees often cannot meet these criteria, their use and placement must be considered carefully, and they are not considered appropriate as street trees or parking lot shading trees. (CPTED)

S-6 Regardless of location near an intersection or elsewhere, placement of all proposed streetscape components must meet the requirements set forth in the City's ordinances, Title 24 of the California Code of Regulations, and the Americans with Disabilities Act.

S-7 Landscaping along the borders of a property is required unless special circumstances demonstrate that it would not be appropriate. Residential single-family properties are exempt.

S-8 Plant materials shall be planted on the site in the exact number, size, and location shown on approved plans. It is the responsibility of the applicant to ensure that the landscaping is installed in accordance with the plans approved by the City. On-site changes must be approved by the City.

S-9 A 3-foot clear space (shrub and ground cover planting) shall be maintained around the circumference of fire hydrants and at the access side of utility boxes except as otherwise required or approved. Plant materials may not encroach on this space.

Visual Clearance/Sight Distance Triangle

S-10 Fences shall not exceed 36 inches in height and shall be of an open design.

S-11 Deciduous trees (and properly trimmed conifers) may be permitted to encroach on the sight visibility triangle, provided that the lowest branch of any such tree shall have a vertical clearance of at least 10 feet from street grade.

Landscape Design

S-12 Energy conservation within structures shall be addressed by recognizing the site's sun exposure and providing appropriate tree species that minimize solar heat gain during the summer months and maximize it during the winter. These include deciduous trees on the southern exposure, coniferous and broadleaf evergreen trees along the eastern and western exposures, and evergreens along the northern exposure.

S-13 Landscape plans shall incorporate CPTED design principles. (CPTED)

S-14 Root barriers shall be installed where the center of the tree is within 8 feet of paving, curbs, or building walls. Root barriers shall not wrap around the root ball, but instead shall be installed linearly along the length of paving or the back of the curb, as determined by a landscape architect.

S-15 Commercial projects located next to residential areas and/or residentially zoned areas shall incorporate appropriately sized transitional landscaping along the property lines to provide an effective visual buffer between the different land uses.

Planting Sizes

S-16 The minimum planting size of shade trees shall be 15-gallon containers with minimum height/spread, at the time of planting, per American National Standards Institute (ANSI) Standards for Nursery Stock.

S-17 The minimum planting size shall be 15-gallon containers with minimum height/spread, at the time of planting, per ANSI Standards for Nursery Stock.

S-18 The minimum planting size of evergreen trees shall be 15-gallon containers with minimum height/spread, at the time of planting, per ANSI Standards for Nursery Stock. Evergreen trees shall be used at strategic locations and shall be designed into group plantings to enhance interest, screen objectionable views, enhance privacy, serve as a backdrop for ornamental trees, and block winds.

S-19 Deciduous shrubs shall be used to provide seasonal color interest. Because of their informal and leafless appearance during dormant months, they should be used in combination with evergreen plants in high-profile areas where a year-round formal aesthetic is desired. Shrubs shall be spaced close enough together to ensure an attractive and mature plant massing effect where desirable. The minimum shrub planting size is a 1-gallon container with minimum height/spread, at the time of planting, per ANSI Standards for Nursery Stock.

S-20 Evergreen shrubs shall be used where a low-level screen or hedge is desired; they may also be used as effective ground covers on slopes. Screen hedges shall offer frequent visual breaks for accent planting. The minimum planting size is a 1-gallon container with minimum height/spread, at the time of planting, per ANSI Standards for Nursery Stock.

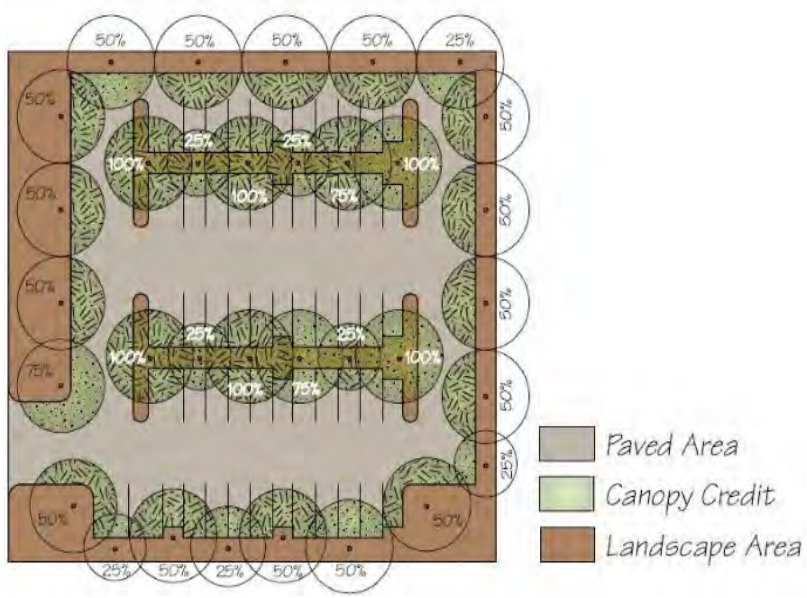


Figure 12.7.1-1: Parking Lot Shading Calculations

Parking Lot Shade Provisions

S-21 The intent of the shading provisions is to reduce urban heat islands by substantially increasing the shaded areas in parking lots. Cooler parking lot temperatures reduce ozone concentrations by lowering hydrocarbon emissions.

S-22 Parking lot shading provisions shall apply to all parking and circulation areas, except areas devoted to truck maneuvering, truck loading areas in front of overhead doors, and vehicle display, sales, and storage.

S-23 Landscape planting areas within a surface parking lot shall provide shade trees at an average of every four parking stalls to provide visual and solar relief. Trees shall be planted and maintained throughout the parking lot to ensure that at least 50 percent of the parking area is shaded within five years after establishment of the parking facility. A plan to maintain and replace trees shall be included.

S-24 Canopy trees placed in or around parking lots shall not interfere with parking lot lighting requirements.

S-25 Shading shall be calculated by using the expected diameter of the tree crown at five years. Where tree shade overlaps, the shade area shall not be double-counted. The coverage area may be reduced for landscaping located under power lines and other obstructions that restrict and/or prohibit tree placement (**Figure 12.7.1-1**).

Parking Lot Sidewalks

S-26 Pedestrian access from the street, separated from drive aisles, to the front entrance of larger commercial buildings shall be provided where appropriate. Sidewalks in parking lots should have a minimum of 5 feet of net landscaping on at least one side of the walkway or alternate from one side to the other to provide a comfortable walking environment, including shade for pedestrians. Stamped and/or colored concrete or other decorative accent is encouraged for crosswalks within the parking lot.

S-27 Pedestrian circulation walks shall be designed to provide access to the disabled in compliance with Title 24 of the California Code of Regulations, the Americans with Disabilities Act, and other relevant standards.

Parking Lot Screening

S-28 Parking areas shall be screened from public streets with low shrubs or decorative screen walls at a maximum height of 30 inches from the adjacent top of the curb or sidewalk. Where possible, a landscape area shall be provided between parking areas and the right-of-way.

S-29 Where planting areas are feasible, the shrubs shall create a semi-continuous 30-inch-high screen within two years of planting. This design objective shall be balanced with CPTED criteria when selecting plant materials. The tree plantings shall provide a mix of large-canopy deciduous shade trees and evergreen trees limbed up to CPTED standards. (CPTED)

Well-designed parking lot island landscaping with optimal planting space (Source: Jacobs)

General Landscape Design Standards for Parking Lots

S-30 Landscape planting shall permit adequate sight distance for motorists and pedestrians entering and exiting a site and shall not interfere with circulation patterns. Vehicular line of sight shall be maintained in all areas throughout a parking lot.

S-31 Landscaping shall be installed in parking areas to minimize the expansive appearance of parking lots. This landscaping in the parking lot interior should include a mix of fast-growing and longer-lived deciduous tree species (without messy fruit) to provide summer shade.

S-32 Landscape planting areas in a surface parking lot shall provide shade trees at an average of every four parking stalls to provide visual and solar relief. Landscape planting areas used for separation between banks of parking stalls shall be a minimum of 6 feet wide, measured inside of curbs. An 8-foot-wide planter area is ideal to ensure the long-term survival of the trees.

S-33 The planting of trees in landscape islands that extend the full length of parking spaces is preferred over trees in smaller planting areas between spaces.

S-34 Where individual tree planter islands are used between banks of stalls, a minimum of 8 x 8 feet square, or 64 square feet of planting space, shall be provided. Incorporating subsurface root zone bioretention infrastructure may allow a smaller parking island configuration.

Refer to Chapter 14.09, "Parking and Loading," of the City's Land Use and Development Code for additional parking lot standards, including lighting and screening for loading zones and truck parking.

Parking lot island of inadequate size and design (Source: Jacobs)

Drive-Thru Lanes

S-35 Drive-thru businesses are not allowed in the DMU and DC Districts. Refer to DTSP Part II, Chapter 10, "Land Use Regulations."

S-36 Where allowed, drive-thru lanes that are adjacent to the street shall be screened using low screen walls, berming or mounding, and/or landscaping.

S-37 Pickup and drive-thru windows oriented toward the street shall be deemphasized through screening and/or architectural treatment.

Design Guidelines

Planting and Ground Covers

G-1 Plantings should be balanced to achieve an attractive initial appearance while considering the size of mature plants. Overplanting that requires later plant removal is not desirable. By alternating tree types, an enhanced aesthetic can be achieved while slower growing trees are established.

G-2 Proposed new trees should be compatible with an established design program on adjacent parcels, and with the neighborhood pattern, if applicable.

G-3 In cases where existing protected trees can be removed for new development, substantial additional trees, other landscaping, and/or additional mitigation measures may be required beyond the measures established in these guidelines and regulations.

Drive-thru lanes should be screened by a combination of walls and landscaping (Source: Jacobs)

G-4 As a general guideline, the following setbacks for trees (measured from center of trunk) should be applied when placing trees adjacent to roadways, walks, buildings, walls, fences, streetlights, ditches, swales, drainage facilities, and miscellaneous utilities, signage, and structures:

1. *Large Deciduous Trees (over 25 feet in height):* 6 feet minimum, but 8 feet is preferred for the setback from buildings, edges of pavements, backs of curbs, and edges of sidewalks.

2. *Small Deciduous Ornamental Trees (under 25 feet in height):* 4 feet minimum, but 6 feet is preferred for the setback from buildings, edges of pavements, backs of curbs, and edges of sidewalks.

3. All trees should be set back a minimum of 10 feet from sanitary sewer, storm drain, gas, telephone, electrical main, and water lines and streetlights, and 5 feet from fire hydrants.

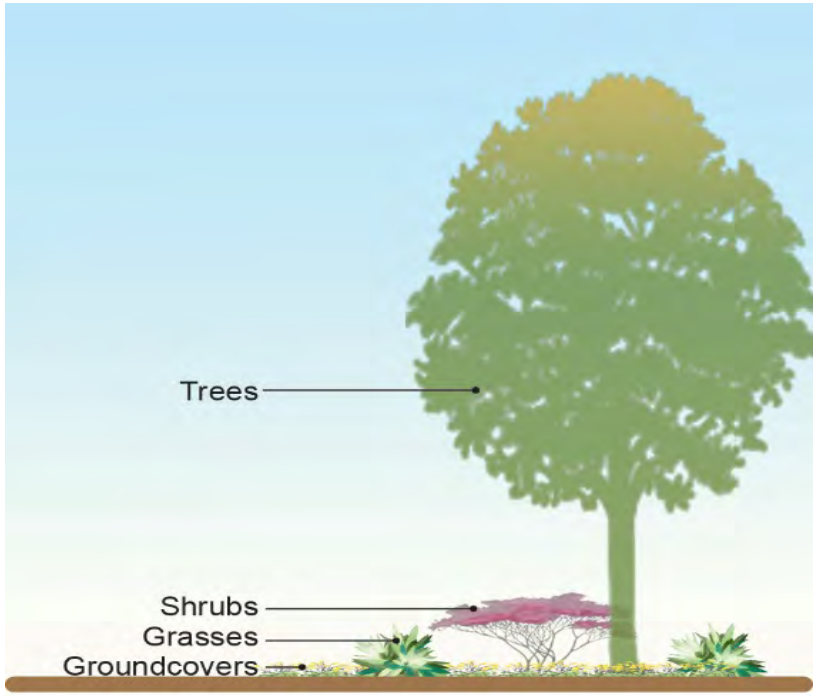
4. Tall-growing trees should be planted a minimum of 15 feet to the side of overhead power lines. Only trees that will reach less than 20 feet at maturity should be planted within 15 feet of power lines.

G-5 Vegetative ground cover that will absorb rainwater and reduce runoff should be used. All irrigated non-turf areas should include a minimum 3-inch layer of wood chip or bark mulch to retain water, inhibit weed growth, and moderate soil temperature. Combustible types of organic mulch are prohibited. Nonporous material should not be placed under the mulch.

G-6 Inert materials such as gravel, decomposed granite, rock, and recycled glass mulch may be used to minimize water use. These materials should be fully integrated into the overall landscape design, planting, and irrigation and placed such that the materials are not a hazard to pedestrians.

G-7 Plant material should cover a minimum of 50 percent of the net plantable site (area remaining when buildings and parking are deducted from the total site area). No areas are to be left in bare soil conditions.

G-8 Plants selected for sloped areas are to be water-conserving plants suitable for erosion control. Varied species and irregular plant spacing should achieve a natural appearance on disturbed or graded slopes. Ground cover other than turf should be used on all slopes exceeding 10 percent.



Layered landscaping (Source: Jacobs)

Landscape Design

G-9 Space devoted to landscaping should be thoughtfully planned from project inception, not space left over after the building and parking have been sited.

G-10 Tree and shrub planting should be grouped together using massing and form to create strong focal points within the site plan unless circumstances dictate otherwise.

G-11 Layered landscaping and a mix of deciduous and evergreen trees should be incorporated into the landscape design.

G-12 Landscaping design should consider maintenance needs and maintenance personnel access, particularly in areas near roadways.

G-13 Tree and shrub species should be selected with root growth habits that will not cause damage to sidewalks, sound walls, neighboring properties, or overhead and underground utilities.

G-14 Species with invasive roots should be sited away from hardscape areas.

G-15 Natural-appearing earthen forms or berms can be incorporated into relatively flat areas to create visual interest, where appropriate. However, good CPTED judgment should be employed when determining berm heights and locations to avoid obscuring natural surveillance.

Figure 12.7.1-2: Tree Spacing

Adequate space should be planned so that trees may grow to their mature form without excessive pruning (Source: Jacobs)

G-16 Landscape elements should complement the adjacent architectural design elements. Unarticulated horizontal and vertical walls and fences should consider using various landscape treatments such as trellises, vines, and/or espaliers to visually break up the large surfaces.

G-17 Special landscape treatments, such as larger trees, accent trees, decorative structures, water features, accent lighting, and/or special paving, should be provided at primary site entries.

G-18 Landscaping should emphasize the primary pedestrian entry into commercial and industrial buildings.

G-19 Annual flower beds can be used to provide an attractive accent element at project and building entries, monument signs, and other focal points where compatible with the adjacent irrigation hydro-zone.

G-20 Adequate space should be provided so that trees may grow to mature form without excessive pruning **(Figure 12.7.1-2**).

G-21 The use of potted plants and hanging flower baskets is discouraged unless an active (daily) landscape management plan is in place.

G-22 The placement of trees/shrubs relative to freestanding signage and building signs should be designed to avoid visually obscuring the signs when the trees/shrubs reach maturity.

G-23 Commercial developments larger than 3 acres or with multiple buildings should consider incorporating hardscape elements, which provide a focus for the development and create an attractive, usable, people friendly, public open space. Appropriate hardscape elements include plaza areas, patios, courtyards, atriums, and outdoor gathering and eating areas. The design of such areas should be well thought out and take all CPTED principles into account. Interesting design features such as public art (refer to DTSP Part II, Chapter 14, Section 14.4.1), historical references, or fountains should be incorporated.

G-24 Fountains and other water features are a "high-water-use" landscape area under the City's Water Efficient Landscape Ordinance and must be included in the ordinance's calculation for landscape and irrigation plan sets.

Planting Sizes

G-25 In certain prominent public gathering areas where an immediate impact is desirable, trees of 24-inch box size or larger may be used to create a strong design element.

G-26 Ground cover plant sizes may vary from liners or 4-inch pots to 1-gallon size, depending on the species.

G-27 Ornamental trees are most effective with a dark background provided by architecture or evergreen trees. Multiple- or single-stem, small-scale trees may be used in small-scale pedestrian locations where space is limited and an intimate feeling is desired.

Parking Lot Shade Provisions

G-28 Photovoltaic solar panels on roofed shade structures are an alternative to planting canopy trees for parking lot shade. Photovoltaic structures should be used primarily over interior banks of parking stalls; shade trees with understory plantings are preferred around the perimeter to screen and soften the parking lot area.

Parking Lot Sidewalks

G-29 Walkways should be provided along paths of likely travel through landscape areas to protect plantings from foot traffic.

Parking Lot Screening

G-30 Landscape design should consider the level of maintenance and pest management that will be required to sustain the landscape. Designs should be able to tolerate the microclimate of the paved areas and should be aesthetically pleasing, low maintenance, water conserving, and maintained using an integrated pest management approach for pest management.

G-31 Reinforced concrete curbing is recommended at the edges of all planters and paving surfaces adjacent to auto circulation or parking areas, unless otherwise designed to promote runoff infiltration into parking lot planters as a low-impact/water quality design measure.

12.7.2 Planting Design and Sustainable Landscapes

Design Intent

Sustainable landscapes contribute to the development of a healthy local community environment and to overall global environmental health. Sustainable landscapes conserve water and other natural resources, clean the air and water, sequester carbon, restore habitat, and increase energy efficiency, among many other social, economic, and environmental benefits. They are restorative and regenerative.

Sustainable design enhances the natural environment and reduces the impact of the built environment. There are many benefits associated with building sustainably, including healthier living environments, reduced costs of heating and cooling, reduced greenhouse gas emissions, local employment opportunities, and safe, livable communities.

A sustainable landscape must also be maintainable. Highly manicured, lushly planted landscapes are not sustainable, nor are they appropriate in a drought-prone climate with constrained water resources. Low-maintenance landscapes that require minimal pruning and reduce waste are encouraged.

Design Standards

S-1 Plant species are suitable for the Vacaville climate. All new landscaping complies with Division 27, "Water Efficient Landscaping," of the City's Land Use and Development Code.

Design Guidelines

G-1 Landscape design should incorporate primarily water-conservative, drought-tolerant native and adapted plant species that are appropriate for a Mediterranean climate, disease and pest resistant, and suited to site-specific conditions, such as soils and solar aspect. Refer to the Water Use Classification of Landscape Species Plant Database (ucanr.edu/sites/WUCOLS) and the University of California, Davis Arboretum All-Stars list of plants for information on low-water-use plant selections for the region.

G-2 Turf grass is discouraged except where it has functional use. Refer to the City's Water Efficient Landscape Ordinance for further restrictions on the use of turf grass.

G-3 The urban tree canopy is the highest priority landscape feature. An optimal tree canopy combined with a simple ground cover treatment is preferable to a dense planting of shrubs and perennials with no trees. Refer to DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines," for tree planting requirements within the public right-of-way.

G-4 While plant massing or groupings of the same species are encouraged for a visual impact and efficient watering hydro-zone, a less dense planting of medium to large native shrubs, alone as an accent or in small groupings, is an alternative xeriscape style.

G-5 Decorative inert and organic mulches, accent boulders, and other ground plane treatments should be combined with low-density native plantings for an attractive xeriscape treatment.

G-6 Low Impact Development landscape techniques that incorporate plants and mulch materials to help manage and cleanse water runoff are a critical part of sustainable landscape design. Refer to DTSP Part II, Chapter 12, Section 12.7.3, "Low Impact Development and Stormwater Management."

G-7 The City encourages landscape designers, installers, and maintenance personnel to reference and incorporate the sustainable landscape materials, practices, and principles advocated by green building organizations, such as the Sustainable Sites Initiative (www.sustainablesites.org).

G-8 The City also encourages developers of large-scale development projects, specific plans, and planned developments to build to the green standards of the Leadership in Energy and Environmental Design–Neighborhood Development (LEED-ND) rating system. Land use goals within LEED-ND that are particularly important to these guidelines include but are not limited to:

1. Sustainable Development
2. Green Rating System
3. Walkable Neighborhoods
4. New Parks and Open Spaces
5. Open Space Buffers

12.7.3 Low Impact Development and Stormwater Management

Design Intent

It is imperative to consider how a new development will affect existing conditions in the area and to assess the opportunities where Low Impact Development can be implemented feasibly. Low Impact Development is a sustainable practice that benefits supplies of surface water and groundwater and contributes to water quality protection.

Unlike traditional stormwater management, which collects and conveys stormwater runoff through storm drains, pipes, and other conveyances to a nearby creek or river, Low Impact Development uses site design and stormwater management to re-create the site's natural stormwater balance.

The goal of Low Impact Development is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. All projects should incorporate Low Impact Development features into their projects unless significant hardships can be demonstrated that prevent this.

Bioretention is a water quality and quantity control best management practice (BMP) that uses the biological, chemical, and physical properties of plants, microbes, and soils to remove or significantly reduce pollutants from stormwater runoff. Refer to **Figure 12.7.3-1** for a cross section of a bioswale.

Low Impact Development and stormwater management in the public right-of-way is addressed in DTSP Part II, Chapter 14, Section 14.3.7.

Tree Well Bioswale

Bioretention in a parking lot

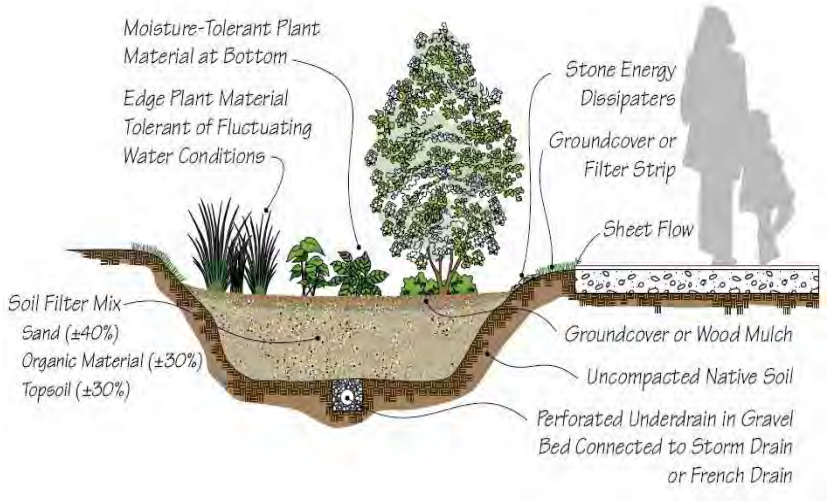


Figure 12.7.3-1: Typical Bioswale Cross Section

Design Standards

S-1 Stormwater BMPs shall be designed and implemented to reduce the discharge of stormwater pollutants to the maximum extent possible. Impervious hardscape shall be kept to a minimum to decrease stormwater runoff and allow infiltration.

S-2 Catching, slowing, and retaining water will promote infiltration and removal of pollutants and minimize stormwater runoff using the following:

1. Infiltration basins, trenches, buffer strips, drain fields, or drywells
2. Bioretention areas
3. Vegetated swales

Design Guidelines

G-1 Where possible, native vegetation and soils should be chosen for stormwater management BMPs. A variety of trees, shrubs, and herbaceous plant materials should be used. Native grass meadows are especially effective at controlling and treating stormwater over a large area.

G-2 Moisture-tolerant plants should be chosen for the bottom of a bioretention swale or basin. Plants that can tolerate both fluctuating water conditions and drought conditions should be chosen for the side edges.

G-3 Standing water in a bioretention swale or basin must be able to drain within 72 hours. This may require periodic removal of built-up sedimentation. All BMP treatment options require periodic maintenance.

G-4 Well-established plants are most effective at treating stormwater.

G-5 Before occupancy of a new building or site, a formal agreement with the City will be required for the inspection and maintenance of the on-site BMPs.

Design Opportunities

D-1 Bioswales with curb cuts.

D-2 Rain barrels (essentially cost-effective cisterns).

D-3 Directing roof leaders to discharge water to rear lots and side yards or other landscaped areas instead of directly to a drainage piping system.

D-4 Bioretention or rain gardens in lieu of parking islands.

D-5 Use of green or living roofs where feasible.

D-6 Interlocking permeable pavers or permeable pavement in areas such as parking spaces and pedestrian crossing areas.

D-7 Structural soil cell systems, which support healthy urban trees and provide opportunities for stormwater storage, infiltration, and water harvesting on-site.

12.7.4 Zoning District–Specific Design

Reserved for future use.

Downtown General Commercial

The more contemporary retail and entertainment centers in the DGC District include larger footprint buildings and more auto-oriented uses than other areas in Downtown. As a result, some of the development standards and guidelines in this chapter may not apply to every project or condition in the DGC District. The standards and guidelines should be applied to the extent applicable and feasible.

Downtown Historic Preservation District Overlay

Projects in the Downtown Historic Preservation District Overlay may be exempt from the standards and guidelines in Section 12.7 if they can demonstrate severe hardship because of existing conditions and/or historic preservation considerations.

12.8 Fencing

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.8.1 Fencing and Wall Design

Design Intent

Fencing and walls may be used to attenuate sound, maintain privacy in residential subdivisions, and screen views of the following:

1. Parking lots (except along street frontages)
2. Trash disposal areas
3. Service and loading/unloading areas
4. Ground equipment

Fencing and walls proposed within rights-of-way or easements will be considered on a case-by-case basis. Information on fencing and walls is provided in Section 14.09.200.050, "Fences, Walls and Hedges," of the City's Land Use and Development Code.

Design Standards

S-1 Fences used to enclose areas for outdoor consumption of alcoholic beverages at restaurants or bars shall comply with any law as required in the State of California 2020 ABC Act and as may be amended from time to time.

S-2 Masonry walls, retaining walls, or solid fences 50 feet in length or longer, and 3 feet in height or taller, are designed to minimize visual monotony through changes in plane, height, material, texture, or significant landscape massing. Appropriate methods of articulation include a combination of using regularly spaced columns, providing a defined base and cap, providing more than one color or material, and/or altering the height of the wall. Pop-outs or recessed areas that provide planting areas should be considered to create variations in the wall massing.

S-3 The materials selected for fences and walls shall be compatible with the architecture of associated buildings and shall be durable and have a timeless design motif. The following types of fences are encouraged:

1. Decorative metal fences
2. Solid walls made of cast concrete, natural stone, brick, and/or textured concrete block
3. A combination of solid wall with decorative metal
4. Weathered or painted steel

Brick and natural stone should not be painted. Walls constructed of timbers, railroad ties, or sheet pilings are not acceptable.

S-4 All fence posts for wood fences adjacent to City-owned or City-maintained parcels shall use Master-Halco steel posts or approved equivalent.

S-5 Chain-link fencing is not permitted in the Downtown Historic District.

S-6 Fencing and walls that are visible from a public right-of-way shall have an attractive cap and articulated façade.

S-7 Landscaping shall be added between fences/walls and public streets to soften their appearance and to deter graffiti. The landscaping shall be placed close to the wall/fence so that individuals cannot hide between the wall/fence and the landscaping. (CPTED) Anti-graffiti coatings must be used on all masonry walls.

S-8 When a fence/wall parallels a walkway, a 36-inch-minimum planting strip shall be provided between the sidewalk and fence, where possible.

S-9 Commercial projects located next to residential areas and/or residentially zoned areas shall incorporate appropriately sized, dense landscaping and a solid masonry wall along the property line to provide an effective buffer between the different land uses.

Design Guidelines

G-1 The height of decorative fences and walls should be minimized, where possible. Berming or mounding can be used with the walls where a taller height is needed.

G-2 Fencing and walls should be designed as an integrated part of the site where possible, rather than as a separate fence, e.g., planter wall, or continuation of an architectural wall.

12.8.2 Zoning District–Specific Design

Reserved for future use.

Downtown Historic Preservation District Overlay

Projects in the Downtown Historic Preservation District Overlay may be exempt from the standards and guidelines in Section 12.8 if they can demonstrate severe hardship because of existing conditions and/or historic preservation considerations.

12.9 Lighting

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.9.1 Building and Site Lighting

Design Intent

Lighting should be provided on the site and on buildings to improve the safety and security and pedestrian-friendly character of Downtown during the evening hours. The form, quality of light, and character of the lighting contribute to the attractiveness and distinctiveness of Downtown. The design and placement of lighting shall complement existing lighting and shall be compatible with the character of each district.

Lighting within the public right-of-way is subject to City approval and is defined further in DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines."

Design Standards

S-1 Lighting shall be in conformance with Section 14.09.240.110, "Light and Glare," of the City's Land Use and Development Code.

S-2 Parking areas and entry drives shall be lighted to facilitate pedestrian movement and safety, meeting CPTED standards. In accordance with the design criteria developed by the Illuminating Engineering Society, the following standards shall be required:

1. Streets and driveways open to the public shall have a luminance value of .04 to 1.5 foot-candles and a color range between 4,000 and 5,000 Kelvin.
2. Sidewalks shall have a luminance value of .03 to 1.0 foot-candles and a color range between 3,500 and 4,500 Kelvin.

S-3 Light fixtures shall be installed on buildings in appropriate locations and shall not obscure major architectural features. (CPTED)

S-4 The material, size, color, design, and brightness of exterior light fixtures shall be considered when selecting a light fixture.

S-5 Lighting shall provide an even illumination level.

S-6 Lighting shall be of an energy efficient design (LED preferred).

S-7 Lighting shall be shielded or otherwise designed to avoid spill-over illumination to adjacent streets and properties. A photometric plan may be required to demonstrate light containment on-site and compliance with CPTED standards.

S-8 Specific locations and design considerations include the following:

1. *Paths.* Through-covered or open courtyards should be illuminated to eliminate blind spots and create a safe level of lighting. (CPTED)
2. *Storefronts.* Lighting should be designed to illuminate the entry doorways and public sidewalk in front of stores in the evening.
3. *Alleys.* New construction or substantial renovation within 20 feet of the property line that abuts an alley should include light fixtures that illuminate the back doors and alley.

Design Guidelines

G-1 Neon lighting may be permitted if reviewed and approved by the decision maker.

G-2 In the DMU and DC Districts, pedestrian-scale lighting fixtures along the sidewalk, at the edge of the property, are encouraged to enhance pedestrian safety and the walkability of Downtown. Refer to DTSP Part II, Chapter 14, "Streetscape and Public Spaces Guidelines," for more information regarding the public right-of-way standards and guidelines. (CPTED)

G-3 Exterior illumination of building walls, landscaping, walkways, public art (refer to DTSP Part II, Chapter 14, Section 14.4.1), and parking areas should be incorporated into the development to provide an opportunity to highlight unique architectural characteristics.

G-4 Suspended cable lights may be used for animating and down-lighting pedestrian passages, open structures, outdoor dining areas, and other exterior locations. Lighting systems should be provided that enhance the public realm and create a positive and safe atmosphere. (CPTED)

G-5 If light fixtures are visible, they should have a low enough intensity or adequate diffusing lenses to minimize their glare. The emphasis should be on lighting the ground plane, landscape, or building surface with downcast and cutoff fixtures.

G-6 In the DMU and DC Districts, bollard lights can be strategically used along pedestrian walkways to supplement pole lighting and can function as physical barriers between different travel modes.

1. *Parking Lots.* Parking lot lighting must complement the building lighting fixtures and should be illuminated to eliminate blind spots and create a safe level of lighting. (CPTED)

12.9.2 Zoning District–Specific Design

Reserved for future use.

Downtown Historic Preservation District Overlay

Projects in the Downtown Historic Preservation District Overlay may be exempt from the standards and guidelines in Section 12.9 if they can demonstrate severe hardship because of existing conditions and/or historic preservation considerations.

12.10 Signage

The following design standards and guidelines are applicable Downtown-wide, with exceptions called out in the "Zoning District–Specific Design" section.

12.10.1 Downtown-wide Signage Design

Design Intent

Signage should relate in placement and size to other site and building elements. It should enhance the character and attractiveness of streets in Downtown, while minimizing the appearance of clutter. These guidelines serve to supplement, but not contradict, the signage regulations in Chapter 14.09.260, "Signs," of the City's Land Use and Development Code.

Design Standards

S-1 All proposed signage shall comply with Chapter 14.09.260, "Signs," of the City's Land Use and Development Code.

S-2 Signs shall not obscure important architectural elements such as windows, cornices, or decorative details.

S-3 The materials and colors shall be compatible with those of the building and the adjoining buildings.

S-4 Installations shall be professionally designed and fabricated with high-quality materials such as metal, stone, and wood.

S-5 Signs shall be wall mounted, projecting, combined with awnings, or placed on windows consistent with the character of Downtown, including the Downtown Historic Preservation District.

S-6 Multiple signs detract from the building's overall appearance and shall be discouraged. Therefore, a sign program shall be provided for multi-tenant buildings to coordinate all signs to create a consistent and compatible image that is reviewed and approved by the Community Development Director.

S-7 Individual shop signs on a single storefront or multi-tenant building shall be designed to relate to each other in size, color, lettering style, and/or building placement.

S-8 All other signage standards shall be established by the City's Sign Ordinance, and the number of signs used shall be consistent with the ordinance.

S-9 Animated, moving, flashing, blinking, reflecting, and revolving signs that detract attention from the buildings and historic character of Downtown Vacaville shall not be permitted, in accordance with the City's Sign Ordinance.

S-10 Cabinet and pole-mounted signage is not permitted.

S-11 Exposed conduit, tubing, and wiring are not permitted. All transformers and other equipment shall be concealed.

Design Guidelines

G-1 Combined directories located at the building entry for multi-tenant buildings are encouraged.

G-2 Signage shall be modest in scale and appearance and shall complement, not overpower, the building structure.

G-3 Historical paint palette colors are encouraged for building exteriors and primary paint color compatibility with neighboring structures, but are not required.

Signs should be designed to relate to and enhance the character of the building and/or site (Source: Jacobs)

12.10.2 Zoning District–Specific Design

Reserved for future use.

Downtown Historic Preservation District Overlay

Projects in the Downtown Historic Preservation District Overlay may be exempt from the standards and guidelines in Section 12.10 if they can demonstrate severe hardship because of existing conditions and/or historic preservation considerations.

Multi-tenant building directories like the directory shown above are encouraged (Source: Jacobs)