PART II

CHAPTER 14

Streetscape and Public Spaces Guidelines

Sections:

14.1 Purpose

The purpose of the Streetscape and Public Spaces Guidelines is to better connect Downtown Vacaville with surrounding neighborhoods and support a vibrant Downtown business environment by creating a more walkable, bicycle-friendly environment for residents, employees, and visitors. To meet this purpose, the guidelines address roadways and alleys, bicycle and pedestrian facilities, landscaping and street furnishings, transit and alternative travel modes, lighting, wayfinding, and other placemaking elements.

14.2 Design Framework

14.2.1 Design Context

Specific goals for the streetscape and public spaces in Downtown include:

- Improve connectivity in and around Downtown to offer desirable choices for all travel modes.
- Manage parking resources in Downtown to promote a “park-once-and-walk” environment.
- Create a vibrant and attractive built environment to reinforce Downtown’s unique brand.

- Increase the perception of personal safety in Downtown to support activity and investment.
- Reinforce Downtown as a lively entertainment, cultural, civic, and dining destination.

This chapter primarily establishes the design guidelines for public streets, open spaces, and parking areas, with standards specified in some areas. These standards and guidelines are to be applied in combination with other chapters that apply to a particular parcel adjacent to the public right-of-way in the design of new development and alteration to existing development in Downtown.

All public and private developments in the Downtown area shall be subject to the City's Design Review process to ensure consistency with the Downtown Design Standards and Guidelines. Approvals are subject to the regulations of the zoning district in which the property is located and/or the design standards and guidelines adopted as part of the DTSP.

A wide variety of land uses are adjacent to the public right-of-way and streets Downtown. This chapter provides recommendations that apply to the typical adjacency, but recognizes that there are unique situations in which these adjacencies may require a deviation from the standards and guidelines.

If the City determines that a project meets the design intent for each element, the standards and guidelines may be waived at the administrative level of approval.

14.2.2 Design Principles

Safety

Help pedestrians and bicyclists, regardless of skill level, to feel safe while using public facilities and reduce instances of accidents and fatalities. Some resources related to safety include:

- Crime Prevention through Environmental Design (CPTED). Refer to DTSP Part II, Chapter 12, Section 12.3, "A Safe Environment." CPTED standards and guidelines are tagged as "(CPTED)" following the standard or guideline as applicable.
- Lighting criteria from the Illuminating Engineering Society.
- Walkability standards from the National Highway Traffic Safety Administration (U.S. Department of Transportation).

Comfort

Preserve Vacaville as a place to live, work, and visit and focus on improving quality of life and public health by supporting walking, bicycling, and active lifestyles. Specific elements of this document that support comfort include:

- *Shade*. Street trees and urban tree canopies over public sidewalks and bikeways to encourage more activity and reduce exposure to heat and ultraviolet rays.
- *Wayfinding*. Clear directional and informational signage that facilitates ease of movement and safety.
- *Aesthetics/Amenities*. Creation of desirable spaces for the public with site furnishings, art, gathering nodes, and other features that encourage community interaction.

Accessibility

Increase pedestrian and bicycle connections to and from major destinations and reduce occurrences of obstacles that may hinder access. Some resources related to safety include:

- The Americans with Disabilities Act (ADA).
- Barrier-free design criteria established by the U.S. General Services Administration.

14.2.3 Design Standards

The City of Vacaville Public Works Standards will prevail, except where specific alternative standards are required by the DTSP. In addition, alternative standards may be allowed by the decision maker when the proposed solutions meet the baseline safety and maintenance criteria established in the Public Works Standards, as determined through the City's approval process.

14.3 Streetscape

14.3.1 Complete Streets

Design Intent

To create a safe and convenient biking and walking environment, appropriate, context-sensitive design features should be considered for every aspect of the streetscape. Individual site features compete within a limited public right-of-way. Therefore, it is important to provide amenities that optimize the utility of the streets for each user including pedestrians, bicyclists, and motorists.

Design Standards

Reserved for future use.

Design Guidelines

The National Association of City Transportation Officials (NACTO) provides a solid foundation for these elements that the City has built upon to create a street environment that is unique to Vacaville. The typical NACTO "complete-street" model emphasizes the importance of considering each user zone while designing a multimodal/complete street. It is important to note that the goal is not to incorporate all zones noted below on every street, but rather to consider the appropriate zones that fit within the context of a specific corridor. The NACTO model is organized in zones (refer to **Figure 14.3.1-1**, "Street Zones (per NACTO Standards)") as follows:

- Frontage Zone
- Pedestrian Zone
- Furnishing Zone
- Bike Zone
- Curb/Parking Zone
- Travel Lane Zone
- Median Zone

G-1 **Frontage Zone**. The Frontage Zone is the space between the building front and the through pedestrian zone. The Frontage Zone is typically provided as a buffer between people walking by and building operations, such as opening doors, using outdoor seating, and stopping to view a window display. In residential areas, the Frontage Zone may provide a buffer between the sidewalk and improvements on the adjacent property, such as a fence or a hedge. The minimum width of the Frontage Zone should typically range from 3 to 5 feet, depending on typology. Common elements/features include:

  - Seating such as benches or seat walls
  - Landscaping and trees
  - Pedestrian-oriented lighting
  - Bicycle parking
  - Public art
  - Sidewalk cafés
  - Sandwich boards, fixtures, and stairs

G-2 **Pedestrian Zone**. The Pedestrian Zone is the main accessible throughway for people to walk. Sidewalks should be incorporated on both sides of the street wherever possible. They should provide a straight path that lines up with crosswalks to facilitate convenient walking and clear lines of sight. The Pedestrian Zone should remain free of obstructions to avoid tripping hazards. Surfaces and slopes must be compliant with the ADA and should remain slip resistant when wet. Lighting should illuminate this zone to create a safe walking environment, and widths should be sufficient to accommodate the anticipated volumes of people. The width of the Pedestrian Zone should be 5–7 feet minimum in residential areas and 8–12 feet minimum in commercial and Downtown areas. Common elements/features include:

- Sidewalks
- Bus stops
- Public art

G-3 **Furnishing Zone**. The Furnishing Zone, located between the Pedestrian Zone and the Curb/Parking/Landscape Zone, provides space for public space elements that enhance the experience of people walking. The Furnishing Zone also serves as the primary separation between people walking on the sidewalk and vehicular traffic or parking. Landscaping, street trees, furniture, litter and recycling bins, transit shelters, utility equipment, and parking meters should all be placed within the Furnishing Zone where space permits. In urban areas, café seating can sometimes be provided within the Furnishing Zone in locations where the Frontage Zone is not wide enough to accommodate it.

Placement of these items within the Furnishing Zone should leave the Pedestrian Zone free of obstacles. Common elements/features include:

- Street landscaping and trees
- Street lighting
- Public seating and outdoor-use elements (like outdoor dining)
- Bus shelters
- Vehicular and pedestrian wayfinding
- Bicycle parking
- Bollards
- Parking meters
- Utilities such as power and light poles

G-4 **Curb/Parking/Landscape Zone**. The Curb/Parking/Landscape Zone occupies the space between the travel way and/or bikeway and the Furnishing Zone, typically including the street curb, drainage gutter, parking, street trees, and in some cases, other elements. The Curb/Parking/Landscape Zone should remain clear of vertical obstacles that could impede truck access, especially delivery trucks. Where trees are considered in this area, they must be species that can be easily maintained away from truck access. This zone may also be expanded to include sidewalk-level separated bicycle lanes (raised bicycle lanes) or elements that expand the sidewalk into the roadway, such as parklets or stormwater filtration basins. In more rural settings, the Curb/Parking/Landscape Zone may also include swale areas for roadway drainage. Common elements/features include:

- Curb and gutter
- Parking
- Stormwater quality features and swales
- Temporary or permanent curb extensions
- Tree planters or parklets
- Bollards

G-5 **Bikeway Zone**. Depending on the context, usage, and available right-of-way, the Bikeway Zone can be accommodated in different ways: through a conventional bicycle lane that is level with the travel way, though a shared bicycle-vehicular travel lane, or through a physically separated design element that provides a striped or vertical buffer between bicyclists and vehicles. Dedicated bicycle lanes should be marked with bicycle pavement markings. The placement of the Bikeway Zone within the right-of-way varies, as it can be placed in any of the following areas:

- Between the Curb/Parking/Landscape Zone and the Travel Lane Zone
- Between the Curb/Parking/Landscape Zone and parked cars
- Between the Furnishing Zone and the Curb/Parking/Landscape Zone
- Between the Pedestrian Zone and the Furnishing Zone

Bicycle facilities can be designed as one-way lanes on each side of a bi-directional travel street, one-way on one-way vehicular travel ways, contraflow to the direction of travel, or two-way on the same side of the street, often referred to as “cycle tracks.” Common elements/features include:

- One-way or two-way bicycle lane(s)
- Bicycle lane buffer (painted or physical)

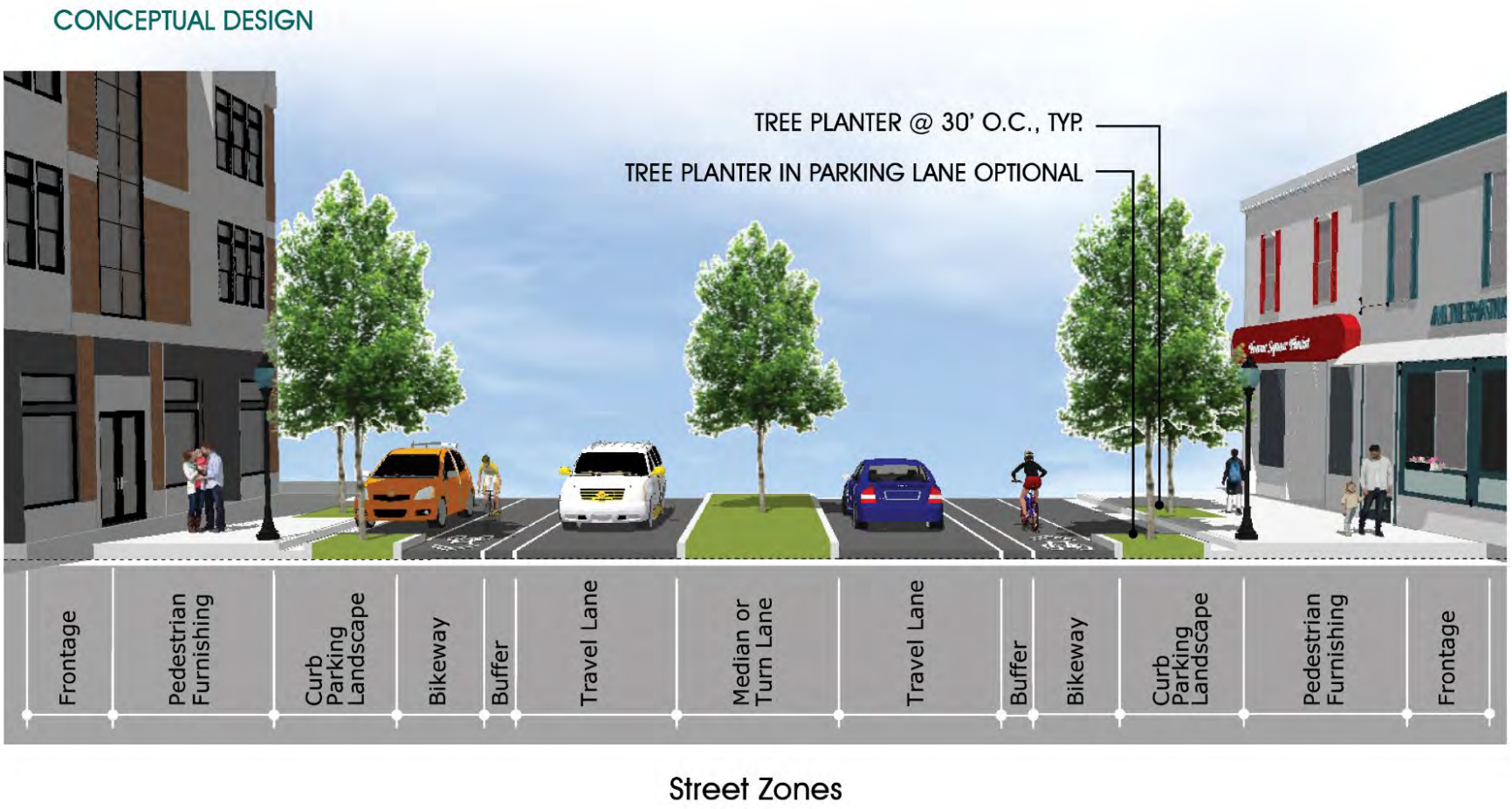
G-6 **Travel Lane Zone**. The Travel Lane Zone supports nearly all transportation options, and consequently is the most critical part of any street design. The Travel Lane Zone is not just about moving motorized vehicles; its design affects multimodal mobility, the safety and comfort of walkways and bikeways, and the ability to cross the street. Complete-streets projects prioritize safety above all else for all street users. Different travel lane design guidelines exist for the different roadway classifications and land use contexts. Minimum lane widths should generally range from 10 to 12 feet, with narrower lanes typically installed on roadways with posted speeds of 25 miles per hour or less. The number of lanes and lane widths are typically designed with a focus on the anticipated vehicle mix on a specific street. For example, on streets anticipated to have higher rates of heavy vehicles and buses, lanes usually are a minimum of 11 feet wide. When the right-of-way does not allow meeting this guideline for all lanes on a multi-lane street, the outside lanes can be designed as 11 feet, while the inside and center lanes can be narrower. Moreover, bicycle lane design is often integrated as part of the travel way design. Increased spatial and physical separation between bicycles and vehicles is needed on high-speed, high-volume streets, low-volume; by contrast, low-speed streets can benefit from a shared-space approach, often referred to as "sharrows." Common elements/features include travel lanes delineated by pavement markings.

G-7 **Median Zone**. The Median Zone is the area in the street that typically separates two-way traffic. The separation is achieved through either pavement markings or a physical, raised, or depressed separation, such as a raised concrete median or a depressed/swale median. Depending on available width, medians can serve a diverse and versatile function for street users. Medians can enhance safety for both vehicles and nonmotorized users. For example, physical medians provide a buffer between bidirectional traffic that reduces the occurrence and severity of head-on crashes. Additionally, if right-of-way allows for a minimum median width of 6 feet, a pedestrian refuge island can be installed in the median to create a "refuge" area for pedestrians and bicyclists crossing the street. On multi-lane, higher volume streets, pedestrian refuge islands can be "actuated" or signalized to allow a two-step crossing for pedestrians; this is especially important as pedestrians often struggle to find appropriate and safe gaps in traffic to cross streets.

G-8 Additionally, for wider multi-lane roadways, pedestrian refuge islands are sometimes installed as an offset, where the pedestrian would have to change direction in the middle of the refuge island for increased alertness, and face opposing traffic. Moreover, medians can be placed at intersections where left turns need to be prohibited; these medians are often referred to as "median channelization islands." Common elements/features include:

- Pavement markings
- Raised concrete island
- Depressed/swale median
- Landscaped median
- Pedestrian refuge island
- Mid-block signalization

The attributes of the various elements within the streetscape zones are further qualified on the following pages. These include both general design and aesthetic considerations and specific recommendations for placement and potential solutions.



(Source: Jacobs)

Figure 14.3.1-1: Street Zones (per NACTO Standards)

14.3.2 Roadways and Alleys

Design Intent

Downtown Vacaville has an established network of public roadways. In general, the roads in Downtown are performing well from the standpoint of vehicular and pedestrian circulation; most streets have amenities to make them safe and comfortable for multiple users. Therefore, the public roadway guidelines focus primarily on vehicular and bike travel, to reconfigure the space between the existing curbs to provide Class II bike lanes, street trees, and less asphalt pavement dedicated to vehicular uses.

Roadways

Design Standards

S-1 A higher intensity of light shall be provided on designated routes from parking lots to primary commercial streets or locations.

Design Guidelines

G-1 Decorative streetlight poles (such as "acorn-style" fixtures) should be incorporated throughout Downtown and the design should ensure an even distribution of light on all pedestrian walkways.

G-2 Sidewalks should transition to a unified scoring pattern.

G-3 The design should ensure that the Pedestrian Zone (as previously defined) occupies at least 50 percent of the sidewalk width (e.g., 8 feet for the standard 16-foot sidewalk, where feasible) or no less than 5 feet, whichever is greater.

Activated alley example (Source: Jacobs)

Alleys

Design Standards

S-1 Public entrances and/or business use of the alley frontage shall be permitted, subject to review by the Public Works Director to ensure consistency with the City's agreement with the City's waste disposal providers.

Design Guidelines

G-1 Storage of refuse for multiple properties should be consolidated to minimize the amount of space dedicated for trash collection.

G-2 Outdoor seating should be provided where space allows.

G-3 Murals and other art should be provided on building façades.

G-4 Where feasible, infill development is allowed along the alley to create a continuous building edge.

G-5 Dwelling units should be provided above garages that face the alleys.

G-6 Trees should be planted on private property where space allows.

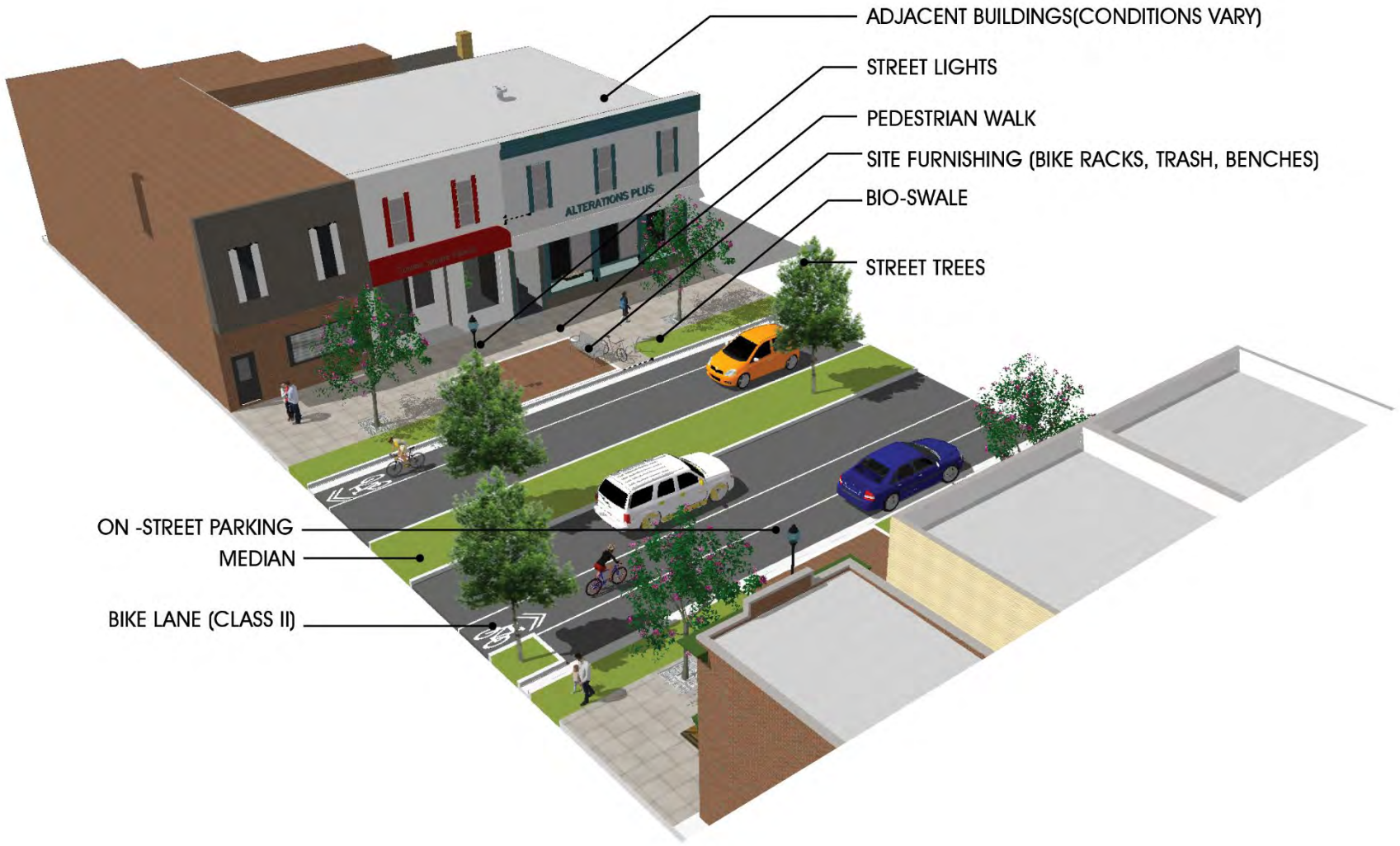
G-7 Development should provide lighting that illuminates the alley and should consider decorative/artistic lighting.

14.3.3 Bicycle Facilities

Design Intent

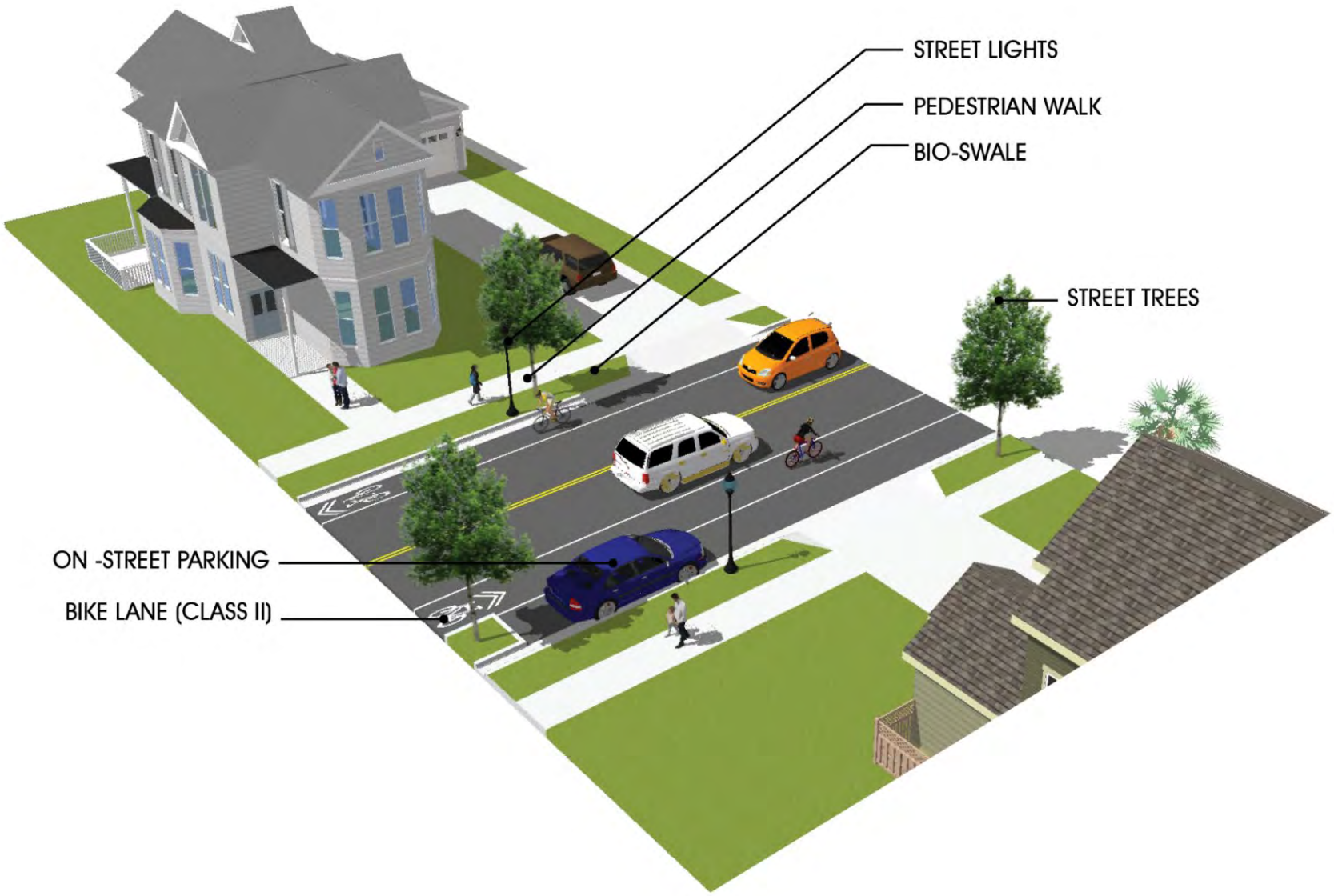
Downtown Vacaville has a well-developed network of public roadways that generally meet the needs of bicyclists, except for the perimeter of Downtown, where relatively wide streets with high traffic volumes and speeds create a constraint to safe and convenient bike travel to Downtown. Additional Class II facilities on streets within Downtown and Class I facilities on publicly owned property are needed (**Figure 14.3.3-1** and **Figure 14.3.3-2**).

Trail in Andrews Park in Downtown Vacaville (Source: ESA)



Source: Jacobs

Figure 14.3.3-1: Urban Street Prototypes



Source: Jacobs

Figure 14.3.3-2: Neighborhood Street Prototypes

Design Standards

Reserved for future use.

Design Guidelines

G-1 Design should follow NACTO standards for bicycle facilities (nacto.org).

G-2 Development should emphasize routes that connect the neighborhoods to Downtown, schools, and other major destinations including Vacaville High School and Buckingham Collegiate Charter Academy.

G-3 Connections under I-80 (Davis Street and Mason Street) should be emphasized.

G-4 Development should utilize existing utility easements (e.g., Pacific Gas and Electric Company) or remnant rail right-of-way, or available City street right-of-way where possible, to add Class I facilities.

14.3.4 Pedestrian Amenities

Design Intent

Encourage walking within Downtown.

Design Standards

Reserved for future use.

Design Guidelines

G-1 **Activating the Street Edges**. The pedestrian sidewalk experience in Downtown Vacaville should be enhanced by active buildings. These include storefronts on retail and commercial streets, stoops, porches, and visible building or courtyard entrances on residential streets, and the avoidance of blank walls and exposed parking garages. This edge can also be defined with architecture such as residential flats, townhouses, lofts, or retail and commercial space. Vacaville's climate is ideal for outdoor dining, and sidewalk cafes are an excellent way of activating the streetscape and energizing the pedestrian environment by creating an interface that bridges the public and private realms.

G-2 **Encouraging Pedestrian Traffic**. Retail activity is a critical component of maintaining a vibrant and active Downtown. It supports the area's employment and residential function, but it also is the component that makes the urban core an interesting and exciting place to be and a destination for visitors who neither work nor live there. Continuity and diversity are important to the success of the retail environment. Too much dispersion of retail activity or too much duplication in the type of retail will undermine retail viability.

G-3 **Parking Connections**. There are numerous surface parking lots near the Downtown Core that are owned and operated by the City of Vacaville. These lots are strategically oriented to provide convenient access to adjacent businesses and residential uses, but are often difficult to find, not clearly identified with signage, and/or poorly lit. This critical aspect of the pedestrian experience should be upgraded with sidewalks that have good lighting, clear sight lines, and pedestrian amenities with intuitive linkages to adjacent public roadways and buildings.

G-4 **Sidewalk Network**. Connecting sidewalks by filling in current gaps is critical to creating a viable and equitable pedestrian facility network. A safe and convenient sidewalk network should provide sidewalks on both sides of the street.

G-5 **Pedestrian Comfort and Safety**. Shade trees, pedestrian crosswalks, bulb-outs, benches, and drinking fountains are just a few amenities that help create a more conducive walking environment. These elements are covered in other sections of this chapter in more detail, but are ultimately the most important elements of pedestrian comfort (refer to **Figure 14.3.4-1**).

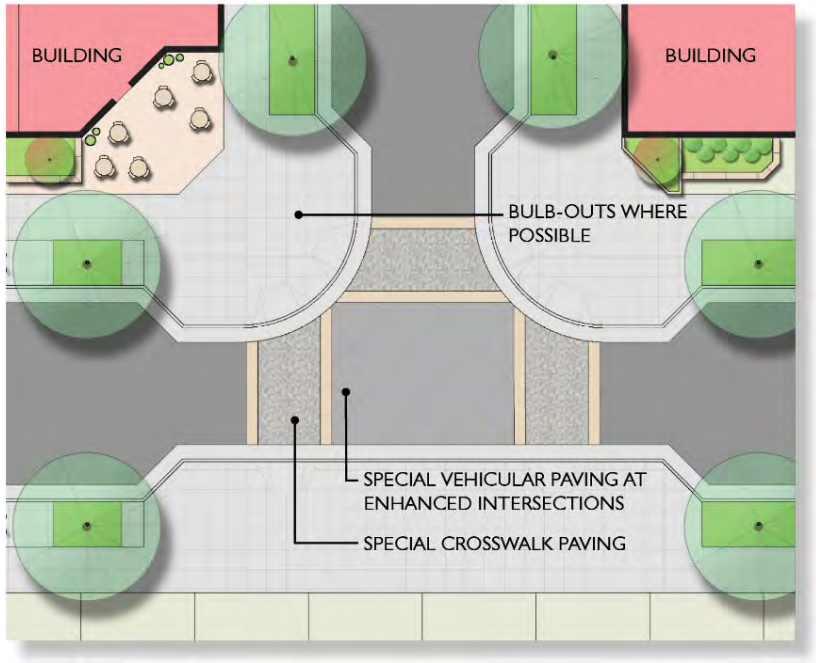


Figure 14.3.4-1: Bulb-Outs and Sidewalk Scoring Pattern

14.3.5 Street Trees and Landscaping

Design Intent

Promote a consistent urban shade tree canopy and ground plane landscaping within the public right-of-way.

Design Standards

S-1 Street trees are required as part of new development or in replacement for damaged or removed street trees.

Design Guidelines

G-1 **Tree Canopies.** Tree canopies should not conflict with the safe movement of pedestrians and vehicles, or interfere with lighting. When locating deciduous trees, their canopies should be maintained to ensure a minimum of 8 feet of clearance from the ground on the pedestrian side and a minimum of 15 feet from the ground on the vehicular side. Because small deciduous trees and ornamental canopies often cannot meet these criteria, their use and placement must be carefully considered.

G-2 **Natural Surveillance.** Design features should be used to increase the "see and be seen" visibility qualities of a property or building. The proper placement of landscaping increases the ability to observe users and deter crime by making any inappropriate behavior more easily noticeable to a passing individual, police patrol, or private security. (CPTED)

G-3 **Natural Access Control.** Elements such as shrubs, fences, and gates should be employed to control access and promote safety. (CPTED)

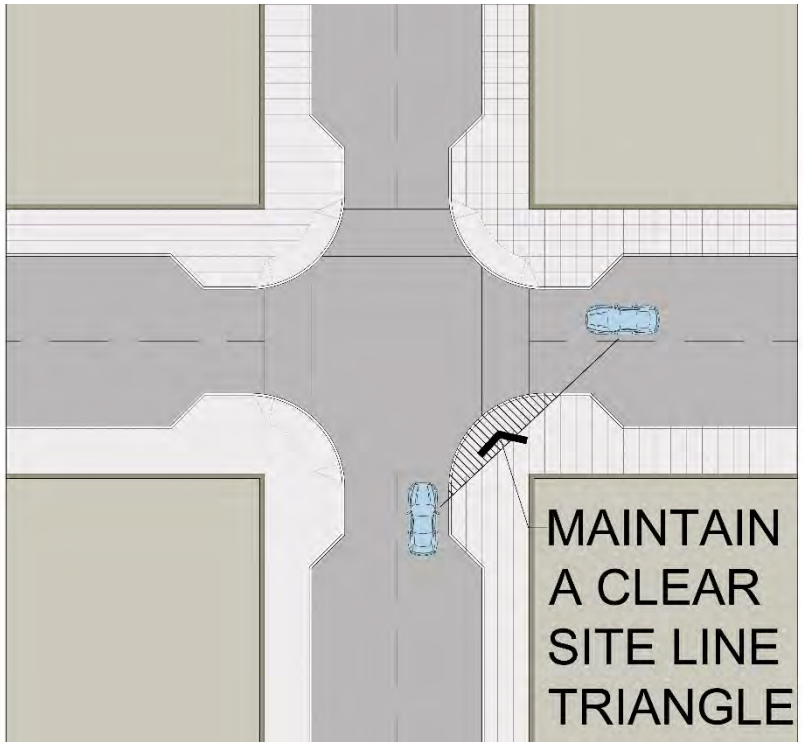
G-4 **Territorial Reinforcement.** Design elements such as sidewalks, low walls, landscaping, and paving patterns should be employed to delineate private, semi-private, and public spaces. A well-maintained space that appears to be "owned" will tend to discourage disruptive behavior and encourage positive social interaction. (CPTED)

G-5 **Maintenance.** Care and maintenance allow for the continued use of a space for its intended purpose and serve as an additional expression of ownership. Proper maintenance protects the public health, safety, and welfare on all existing premises by establishing minimum requirements and acceptable standards. (CPTED)

CPTED—Avoid plantings that create hiding places (Source: Jacobs)

G-6 **Sustainability.** 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.

G-7 **Intersection Visibility.** At the intersection of roadways or vehicular access points, trees, shrubs, and other landscape features must meet the City of Vacaville Public Works Standards, defined as drawing 3-04A. The visibility concept is illustrated in **Figure 14.3.5-1**.



(Source: Jacobs)

Figure 14.3.5-1: Sight Visibility Triangle

14.3.6 Street Furnishings

Design Intent

Promote a consistent level of site furnishings within the public right-of-way. In support of the City's Outdoor Dining Program (approved on June 23, 2020), provide furnishings to encourage outdoor seating and dining within the public right-of-way adjacent to activated storefronts, which can include areas such as parklets, extended sidewalks, and public plazas.

Design Standards

Reserved for future use.

Design Guidelines

G-1 Whenever possible, site furnishings should be designed and fabricated, ideally by local artists, to promote placemaking and support the local arts culture. Variety in site furnishings should be considered to allow for increased visual interest and spontaneity throughout Downtown. Furnishings may also be commissioned before other streetscape improvements, stored, and then reinstalled following infrastructure upgrades. Whenever possible, the furnishings described below should be designed as public art that contributes to the unique character of Downtown.

G-2 Benches should be designed to be functional for sitting and ergonomically designed for comfort. Benches near bus stops or places where people might be seated for an extended period should include back support.

G-3 Deterrents to skateboarding and sleeping should be considered.

G-4 Vandalism should be deterred using durable materials.

G-5 Bollards should be provided for visual interest and to create a unique streetscape. They can also provide functional benefits for lighting and traffic control.

G-6 Trash and recycle bins should be provided at strategic locations and a regular pickup schedule should be maintained to discourage litter.

G-7 Bike racks should be located frequently, conveniently, and visibly near public gathering spaces and active building entrances, but not in areas that would cause the bikes to intrude into the walkway.

14.3.7 Low Impact Development and Stormwater Management

Design Intent

The goal of Low Impact Development is to mimic a site's pre-development hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. Refer to DTSP Part II, Chapter 12, Section 12.7.3, "Low Impact Development and Stormwater Management," for more details.

Design Standards

Reserved for future use.

Design Guideline

G-1 Within the roadway right-of-way, water should be caught, slowed, and retained to promote infiltration and removal of pollutants and minimize stormwater runoff using:

- Infiltration basins, trenches, buffer strips, drain fields, or drywells.
- Bioretention areas in the public right-of-way or public parking lots.
- Vegetated swales located on individual building sites or in the public right-of-way.

14.3.8 Accessibility

Design Intent

Provide barrier-free access along all public walkways. Upgrade crosswalks, ramps, and sidewalks to current ADA standards. The path of travel within the public realm includes sidewalks, curb ramps, and crosswalks. Each of these features must meet minimum code criteria and should seek to exceed these minimums whenever possible.

Design Standard

S-1 **Sidewalks**. To achieve barrier-free design and comply with the ADA, development shall incorporate a minimum 4-foot-wide clear path around all obstructions.

Design Guidelines

G-1 **Sidewalks**. Private development is encouraged to provide at least 6 feet of walkway along active storefronts.

G-2 **Curb Ramps.** Private development is encouraged to provide adequate space adjacent to public ramps and crosswalks for intersecting circulation, and to align building entrances or site features with the crosswalks to improve circulation.

G-3 **Crosswalks**. Private development is encouraged to coordinate with the City during the planning stages of a project to explore where crosswalks could enhance accessibility.

14.3.9 Vehicular Parking

Design Intent

Provide safe parking for residents and visitors that is located within a reasonable distance of Downtown destinations.

Design Standards

Reserved for future use.

Design Guideline

G-4 Visibility between surface parking lots and the entrances to storefronts, lighting, and safety after dusk is a key consideration. Specific guidelines for public parking facilities include:

- **Lighting**. Surface parking lots should have consistent safety lighting as noted in DTSP Part II, Chapter 14, Section 14.5, "Exterior Lighting."
- **CPTED**. Landscaping should adhere to the guidelines noted in DTSP Part II, Chapter 14, Section 14.3.5, "Street Trees and Landscaping."
- **Signage**. Signage and wayfinding features should adhere to guidelines noted in DTSP Part II, Chapter 14, Section 14.3.10, "Signage and Wayfinding."

14.3.10 Signage and Wayfinding

Design Intent

Provide signage and wayfinding that make it safe and convenient to navigate Downtown.

Design Standards

Reserved for future use.

Design Guidelines

G-1 **Branding Signage.** The brand identity of the Downtown should be established and reinforced. The existing Blade Sign program should be maximized to incorporate unique blade signs along the sidewalk.

G-2 **Information and Directional Signage.** Informational and directional signage should be placed at entrances to Downtown and at critical nodes or decision points.

G-3 **Freeway Marquee Signage**. Signs should be placed along I-80 to notify drivers that they are approaching Downtown and give them sufficient time to exit the freeway to get to Downtown.

G-4 **Downtown Gateway Signage**. Downtown Gateway signage should not be in an obscure location. Such signage should be visibly marked and located at Downtown entries.

G-5 **Wayfinding and Placemaking Signage.** Signage in the public right-of-way that helps with wayfinding and placemaking is encouraged.

Example of directional signage in Downtown Napa (Source: ESA)

Branding signage (Source: Jacobs)

14.4 Public Art

14.4.1 Public Art and Murals

Design Intent

Provide art installations in the public right-of-way and murals on existing and proposed building façades that inspire, activate, and energize Downtown. The public art must be approved by a City Design Review process for consistency with the design intent of the DTSP and for safety and operational compliance with local codes. Create unique public spaces through art elements.

Design Standards

S-1 Sculpture art shall be installed in locations where it will not create ADA access impacts or safety hazards.

S-2 The art installations shall meet public safety criteria established by the Unified Building Code. These may include criteria such as the following:

- Structural stability
- Surface finishes that are safe to touch
- Nontoxic paints and finishes
- Non-offensive content

Wall mural example (Source: Jacobs)

Artistic bike parking creates a unique pedestrian experience (Source: Jacobs)

Design Guidelines

G-1 Public art is encouraged in public spaces.

G-2 The use of sculptures, murals, water elements, carvings, frescoes, mosaics, and mobiles is highly encouraged.

G-3 Artwork should be located to be visible by the public and relate to the adjacent building or project in scale and concept.

G-4 The design and materials of the artwork should be durable against weather and vandalism and should not require extensive maintenance.

G-5 Murals should be on façades that are not located along the public roadways, but instead should be focused on frontage such as side yards, parking lots, or alleys.

14.5 Exterior Lighting

14.5.1 Downtown-wide Lighting

Design Intent

Lighting should be fully or partially directional to eliminate unnecessary light pollution.

Design Standards

Reserved for future use.

Design Guidelines

G-1 Lighting in the district should conform to the traditional acorn-style pole fixtures already established along Main Street. Light fixtures should be the LED type to conserve energy. Lights should be fully or partially directional to eliminate unnecessary light pollution.

Various lighting types should be considered in the streetscape designs:

G-2 **Light Art Installations.** A defining feature throughout the Downtown area could be the use of light art installations. These could be strategically positioned between regular light poles, resulting in functional, human-scale lighting.

G-3 **Accent Lights (In-Ground Lights).** The use of in-ground lighting (integrated with paving) to create an artistic and functional wayfinding and placemaking element is highly desirable, especially on key streets such as Main Street and Merchant Street.

G-4 **Pole Lights.** Human-scale pole lighting (acorn fixtures 15–25 feet in height) should be used as needed to achieve functional lighting along the sidewalks. Pole light spacing should be coordinated with street trees during the design phase to minimize spatial conflicts.

G-5 **Bollard Lights.** Bollard lights can be strategically used along pedestrian walkways to supplement pole lighting and can function as physical barriers between different travel modes.

Specific locations and design considerations include the following:

G-6 **Paths.** Through-covered or open courtyards should be illuminated to eliminate blind spots and create a safe level of lighting.

G-7 **Storefronts.** Lighting should be designed to illuminate the sidewalk in front of stores in the evening.

G-8 **Alleys.** New construction or substantial renovation within 20 feet of a property line that abuts an alley should include light fixtures that illuminate the alley.

G-9 **Parking Lots.** Parking lot lighting must complement the building's lighting fixtures and should be illuminated to eliminate blind spots and create a safe level of lighting.

G-10 **Location and Design**. Lighting should be accomplished in a manner that does not create glare for pedestrians or adjacent properties. If light fixtures are visible, they should have a low enough intensity or have 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. Existing acorn-style pole lights can be upgraded to have a light shield within the globe.

Lighting in Downtown Livermore (Source: City of Vacaville)

14.5.2 Street and Sidewalk Lighting

Design Intent

Provide a consistent intensity and color range of lighting on all public streets and walkways within Downtown.

Design Standards

Reserved for future use.

Design Guidelines

Using the forthcoming Downtown Vacaville Lighting Master Plan as the basis, the City will install publicly owned light fixtures throughout Downtown. Guidelines for the lighting plan include:

G-1 The plan should include coordination between light fixtures and trees.

G-2 The fixtures selected should meet the dark-sky criteria.

G-3 Energy-efficient lamps should be selected except where decorative (i.e., like string lights) or art lighting is installed.

G-4 Glare toward adjacent properties should be avoided.

G-5 City lighting plans should include lighting intended to illuminate the path of travel from public parking lots to primary commercial destinations.

G-6 Pedestrian-scale lighting should be provided in alleys and walkways that connect parking lots to commercial entrances.

14.5.3 Storefront Lighting of Public Sidewalk

Design Intent

Encourage private landowners to supplement public walkway lighting with additional sources of lighting.

Design Standards

Reserved for future use.

Design Guidelines

G-1 Storefront lighting should be complementary to the public lighting directly adjacent to the property. Individual building owners can make an enormous impact on the quality of lighting along the street directly adjacent to their buildings. Guidelines for storefront lighting include:

- *Minimization of Glare*—Visibility between the interior and exterior spaces promotes safety for the public realm. Window glazing, blinds, and other window treatments should support transparency between ground-floor building uses and the public sidewalk.
- *Quality*—Storefront lighting should complement the intensity and color range of the public lighting.
- *Fixtures*—Storefront lighting should complement the character of the building façade.
- *Prohibited*—No neon or blinking lights are permitted.