

3. Intersections

(continued)

C. **Curb Extensions.** Curb extensions—often called “bulb-outs” or “neckdowns”—are recommended at intersections where there is a high level of pedestrian activity in order to reduce the crossing distance for pedestrians and to slow traffic speeds. Curb extensions also provide the space for pedestrians to wait before crossing and space to introduce pedestrian amenities, such as landscaping, lighting, water features, and street furniture that help distinguish the pedestrian crossing as special zones.

D. Curb extensions can also be installed at intersections as well as at mid-block crosswalks.

- » Curb extensions should not be used at intersections where there are: no on-street parking lanes, exclusive right-turn lanes adjacent to the curb, or high volumes of right-turning trucks or buses turning into narrow cross streets.

E. **Reduced Corner Radii.** Reducing corner radii at intersections provides the dual benefit of reducing the crossing distance for pedestrians and slowing traffic. In urban areas where pedestrian activity is intensive, curb return radii should be as small as possible—typically less than 25 feet, with a 10- to 15-foot minimum radius. For each foot subtracted from the curb radius almost a foot is subtracted from the width of the street crossing. For example, the crossing distance for an intersection with 15-foot curb radii is 8 feet less than one with a 25-foot radius.

F. Reducing corner radii is a particularly important strategy at intersections that do not have curb extensions, since smaller curb radii slow traffic.

- » Smaller corner radii are appropriate where the volume of large turning vehicles (buses, trucks, etc.) is low, the occasional turn made by large vehicles can be accommodated with slower speeds, where on-street parking and bicycle lanes provide a greater effective turning radius, and where some encroachment into the opposing traffic lanes is deemed acceptable.

2. Crossing Time

A. **Walking Speed.** Set pedestrian crossing times for walking speeds appropriate for the type of pedestrian

using the intersection. Accepted timings for children and the elderly are 3.5 feet per second, and 4.0 feet per second for others.

B. **Pedestrian Signals.** Consider installing “countdown” pedestrian signals to all signalized intersections to improve pedestrian comfort. Countdown pedestrian signals, indicating how many seconds remain to cross the street, are particularly valuable to the young and the elderly.

3. Crosswalks

A. **Crosswalk Markings.**

- I. High visibility markings should be used to delineate pedestrian crosswalks, both to alert drivers of the potential presence of pedestrians and to guide pedestrians to use only designated crossing points.
- II. Marked crosswalks should be provided for all legs of signalized intersections, and across ‘STOP’ sign controlled intersections where there is significant pedestrian activity.
- III. At unsignalized or uncontrolled crossings, special emphasis longitudinal or diagonal markings should be used to increase visibility of pedestrian crossings. High-contrast markings also are recommended to aid people with vision impairments.

B. On streets with multiple lanes in each direction, provide a limit line 4-5 feet in advance of crosswalks to reduce



Curb extensions expand the pedestrian realm, slow traffic and reduce pedestrian crossing distances.

3. Intersections

(continued)

encroachment of vehicles and to increase visibility of crossing pedestrians.

- C. **Crosswalk Materials.** Special paving treatments, such as brick, colored concrete, and pavers, should be considered in conjunction with crosswalk markings to enhance the visibility of crosswalks, improve aesthetics, and serve as a visual and tactile cue to drivers that there is pedestrian activity. All crosswalk materials should be durable, safe for pedestrian use, and stable enough to accommodate vehicle traffic without shifting or settling.
 - D. **Crosswalk Lighting.** Pedestrian-scaled lighting should be used in conjunction with traffic safety lighting at crosswalks to better illuminate pedestrians to drivers. Special lighting, such as flashing pavement markings, can be used to further enhance pedestrian visibility during evening hours.
 - E. **Mid-block Crosswalks.**
 - I. Mid-block pedestrian crossings generally are not recommended, particularly in the historic core where intersections are relatively closely spaced. Because mid-block crossings are not generally expected by motorists, they should be used only where truly needed, there is appropriate sight distance, and crossings are appropriately signed, marked and illuminated.
 - II. Mid-block crossings may be considered when there is significant pedestrian demand to cross a street between intersections, such as to connect two major mid-block destinations.
 - F. **Raised Crosswalks.** Raised crosswalks and intersections, that bring the roadway to the sidewalk level, may be considered where there is a desire to further slow traffic into or through a neighborhood, as these elements also act as speed humps.
 - G. **Handicap Accessibility.** Curb ramps should be provided at all intersections to ensure handicap accessibility.
- 4. Visibility**
- A. Pedestrian-scaled lighting should be used in conjunction with traffic safety lighting at crosswalks to better illuminate pedestrians to drivers.
 - B. On streets with multiple lanes in each direction, provide a limit line 4-5 feet in advance of crosswalks to reduce encroachment of vehicles and to increase visibility of crossing pedestrians.

Implementation Recommendations

1. The City should consider developing a design standard for decorative paving techniques that could be used for pedestrian crossings throughout the Central City that meet the functional requirements for maintenance and durability and enhance the pedestrian environment.
2. The City should review and revise as appropriate its current street standards relating to curb radii to be consistent with the Pedestrian Master Plan and these guidelines.



Provide curb ramps at all intersections to accommodate the handicapped.



Special paving treatments and pedestrian-activated crossing lights alert drivers to the presence of pedestrians.

C. Pedestrian Realm

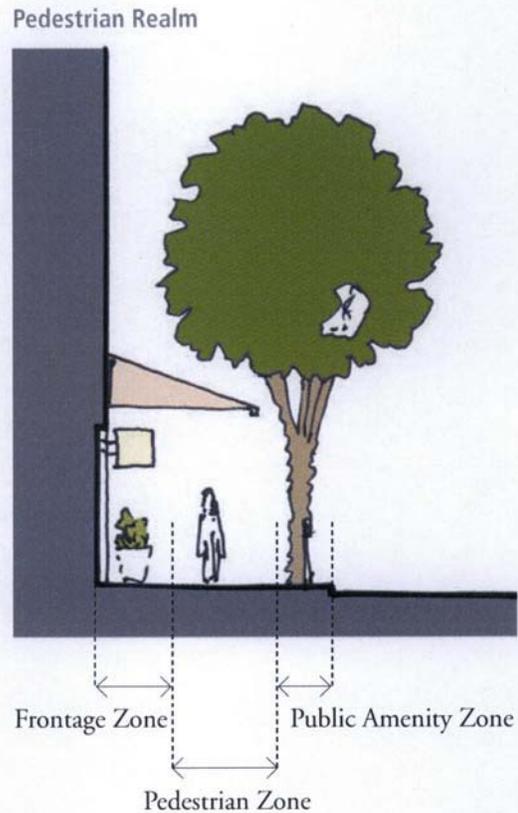
The Pedestrian Realm guidelines are intended to promote a more walkable downtown by improving pedestrian safety, convenience, and comfort. The guidelines build upon recent city efforts, including the City's Pedestrian-Friendly Street Design Standards (2004) and Pedestrian Master Plan (2006), that strive to make Sacramento a model pedestrian-friendly city--in short, the "Walking Capital".

The guidelines focus on improving the attractiveness and effectiveness of the pedestrian network in order to encourage walking as a realistic mode of transportation. As such, they recommend design strategies for enhancing the physical safety, comfort, and convenience of the pedestrian environment as well as the aesthetic character and quality of the pedestrian experience.

The guidelines are intended to reclaim City streets for pedestrians, creating true multi-modal transportation routes that safely and effectively balance the circulation needs of vehicular and pedestrian traffic, while also acknowledging the public streetscape's role as the "stage" or "living room" on which the life of the community plays out.

The pedestrian realm serves several functions--circulation facility, social space, and amenity zone—and must accommodate numerous features and facilities to support these functions. For purposes of these guidelines, the pedestrian realm has been subdivided into three zones: the pedestrian zone, the amenity zone, and the frontage zone (see diagram). Each zone plays a slightly different role in the pedestrian realm and has different design requirements. The following discussion further describes each zone and the guidelines have been organized by zone to clarify the differences.

As shown in the diagram, the three zones generally occur on both sides of the street. The pedestrian zone is the middle zone and primarily accommodates pedestrian circulation. The amenity zone generally is adjacent to the street and accommodates public facilities and street furnishings. The frontage zone is adjacent to building frontages and serves as a transition area. These zones are conceptual, and while they may be clearly represented and delineated on some streets, on other streets they may be missing or weakly defined.



The pedestrian realm serves several functions: circulation, social space, and public amenities.

1. Public Sidewalks

a. Sidewalk Widths

PRINCIPLE: Dedicate adequate space within the public street right-of-way to support a safe, comfortable, attractive, and robust pedestrian environment.

Background & Intent

Sidewalks are the primary areas within the public street right-of-way that are reserved specifically for pedestrian use. They also serve as the interface between the buildings and uses of the private realm and the vehicular travelway, providing both connections and buffers. As such, the design of the sidewalk and the elements within it are critical to the creation of an active, pedestrian-friendly environment, which in turn is essential to establishing and maintaining the CBD as a successful commercial and cultural center and vibrant residential neighborhood.

As part of the “public” right-of-way, sidewalk widths can be read as a statement about the relative status given to pedestrians versus automobiles in the downtown. When the majority of the street right-of-way is given over to the automobile, and pedestrians are relegated to narrow sidewalks on either side of the travelway the implicit message, whether intentional or not, is that the pedestrian is not as important as the automobile.

Generally, the space allocated to the pedestrian and the automobile needs to be better balanced to reflect the City’s commitment to establishing a walkable downtown. This is not to say that vehicular and pedestrian zones necessarily need to be equal in area, but that safe, comfortable pedestrian environments will only occur where the design of the public realm balances the concerns for automobile efficiency with those for a high quality pedestrian environment.

Historically, the regularity of the Central City’s street grid has resulted in substantial uniformity in the design of the standard street cross-section. The typical 80-foot wide public street right-of-way in the downtown can accommodate much more variety in design, including variation in the relative emphasis (i.e., space) given to pedestrians versus automobiles.



Ample sidewalk widths accommodate a diversity of uses.



The sidewalk opposite Chavez Plaza was widened specifically to encourage pedestrian activity.

1. Public Sidewalks

a. Sidewalk Widths (continued)

Guidelines

1. Sidewalk Widths. Sidewalk widths should be commensurate with the level of pedestrian activity desired for the specific street frontage. Whereas sixteen (16) feet is the typical sidewalk width in the CBD, high activity areas should have sidewalk widths of 20 feet or more. Sidewalk widths in the CBD should not be less than 14 feet.
2. Curb Extensions. Curb extensions at “necked-down” intersections are encouraged as a means of expanding the pedestrian zone where pedestrians are likely to congregate while waiting for transit or to cross the street.
3. Functional Zone Priorities. The widths of the sidewalk functional zones should vary in response to context, but sidewalk width should be distributed amongst the 3 zones according to the following priorities: pedestrian (highest), amenity (middle), frontage (lowest). See guidelines for each zone for minimum allowable widths.



Narrower sidewalk on a retail street maintains sufficient clearance for walking comfortably by limiting the number of street furnishings.

Implementation Recommendations

- Consider creating a pedestrian overlay in the City's zoning code that codifies the concepts set forth in these guidelines for the public realm.

1. Public Sidewalks

b. Functional Zones

PRINCIPLE: The elements that occupy the public sidewalk shall be organized into three distinct zones that: facilitate safe, comfortable pedestrian movement (Pedestrian Zone); support the vitality & function of adjoining uses (Frontage Zone); and provide the amenities & facilities that promote social interaction (Public Amenity Zone).

Background & Intent

As the transitional zone between the vehicular travelway and developed parcels, the public sidewalk serves several functions. It provides for pedestrian circulation both parallel and perpendicular to building facades, accommodating movement from one end of the block to the other, as well as from on-street parking to storefronts. Sidewalks also serve as an important social space for the community, where people meet, stroll together, window shop, sit and chat, dine in open air cafes, and people watch. They also accommodate important public facilities such as transit stops, bicycle parking, directional signs, and street lights that support transit and bicycling as well as walking.

As a circulation facility, the public sidewalk needs to provide for ease of access and free flow of pedestrian traffic. As a public space, the sidewalk needs to also provide a comfortable and attractive setting. To effectively accommodate active pedestrian use, the design of public sidewalk areas generally should be organized into three zones relating to their primary function: the frontage zone, the pedestrian zone, and the public amenities zone.



Three functional zones of public sidewalks: Public Amenity Zone, Pedestrian Zone, and Frontage Zone.

Pedestrian Zone

The pedestrian zone is the middle section of the sidewalk, and is flanked by the frontage zone and the public amenity zone. Its primary function is to accommodate the efficient movement of pedestrians. As such, it needs to provide an unobstructed, linear sidewalk space that is free of street furniture, street trees, planters, and other vertical elements such as light poles, fire hydrants and transit facilities, and be wide enough to accommodate projected volumes of pedestrian traffic.

Public Amenity Zone

The public amenity zone is the section of sidewalk that adjoins the street and buffers pedestrians from the adjacent roadway. This zone is the appropriate location for the majority of the public facilities and streetscape amenities that enhance and serve the pedestrian zone, including features such as street trees, landscaping, street lights, transit stops, parking meters, fire hydrants, benches, news racks, and other street furniture and amenities.

Frontage Zone

The frontage zone forms the outer edge of the public right-of-way and typically is defined by a building façade, landscaping, fence, wall, plaza, or park (or, in less desirable, interim conditions, a surface parking lot). It functions as the interface between the public right-of-way and adjoining uses. As such, the design of this zone should be responsive to and support the adjoining use, which, depending on context, may mean providing a clear zone for store entrances, a “slow” zone for retail displays and window shopping, or a furnished zone for outdoor dining.

1. Public Sidewalks

b. Functional Zones (continued)

Guidelines

1. **Accessibility.** Public sidewalks should provide a direct and continuous pedestrian network that connects blocks and buildings to each other with a clear, unobstructed pedestrian travelway that is designed to accommodate the needs of a broad range of users, including the elderly, those with disabilities, and young children.
2. **Amenities.** Sidewalks should be richly appointed with improvements and facilities that enhance the pedestrian experience, but should avoid clutter and congestion.
3. **Seating.** In addition to accommodating pedestrian circulation, public sidewalks should provide spaces for more passive or sedentary activities, where people can linger to observe or participate in public outdoor activities. Seating can be either formal (e.g., chairs and benches, such as that found at a café or a transit stop) or informal (e.g., low walls, steps, fountain edges).
4. **Landscape.** Landscaping of the public sidewalk is encouraged as a means of adding color and visual interest, softening the urban edges, providing shade, and assisting with air quality and stormwater management. Landscaping generally should be located in the amenity and frontage zones and should not obstruct through pedestrian traffic or access to the street.



Sometimes the sidewalk zones are clearly and formally defined.



Other times the sidewalk zones assume a more informal character.

1. Public Sidewalks

b. Functional Zones I: Pedestrian Zone

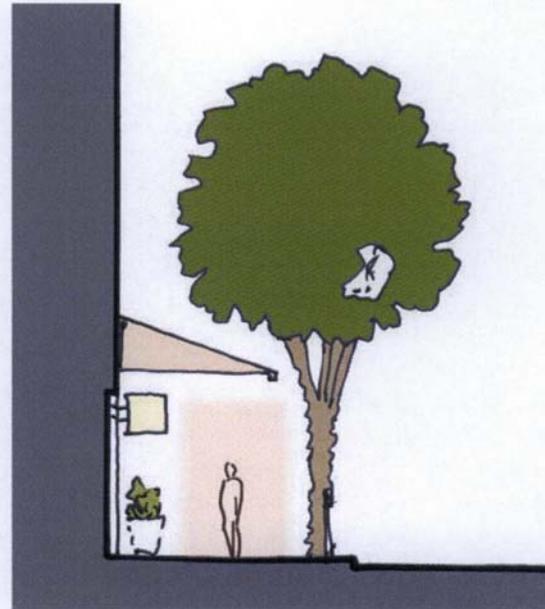
PRINCIPLE: Public sidewalks shall provide adequate horizontal and vertical clearance to accommodate convenient and comfortable pedestrian circulation, with sidewalk designs proportional to pedestrian traffic levels.

Background & Intent

Sidewalks function as critical transportation routes within the downtown and are the one section of the public street right-of-way that is reserved exclusively for pedestrian circulation. In addition to providing physical access to land uses and transit facilities along a corridor, the sidewalk also serves as an important social space, where people interact, stroll together, wait for transit, window shop, share a meal, grab a cup of coffee, and access adjoining uses.

As a rule, sidewalk widths should be proportional to the level of activity and pedestrian use along a street. Similarly, the width of the pedestrian zone should be proportional to the amount of pedestrian traffic it needs to accommodate. Sidewalks that maintain minimum sidewalk widths often become crowded with public utilities, transit facilities, street furnishings, and landscaping that can constrict pedestrian movement. High pedestrian activity locations such as the Central City should have wider sidewalks to ensure adequate walkway clearance and access and to allow for additional activities which support the intensity of land use.

Sidewalk widths of 14 feet or greater generally provide space for pedestrian amenities, for local business activity to spill out onto the sidewalk, and for a leisurely walking pace without vehicle traffic dominating the pedestrian realm. However, in many areas in a vibrant urban center, sidewalks may be wider to accommodate increased types and amounts of activity.



Pedestrian Zone



The pedestrian zone needs to be large enough to accommodate pedestrian circulation.

1. Public Sidewalks

b. Functional Zones I: Pedestrian Zone (continued)

Guidelines

1. Clearance. Ensure that a minimum sidewalk width for pedestrian through-traffic is not obstructed with street furniture, utility poles, traffic signs, trees, etc. Streetscape amenities generally should be located in the Public Amenity Zone to maintain a clear walking zone.
2. Width Proportions. The Pedestrian Zone should comprise at least 50% of the sidewalk width (i.e., 8 feet for the standard 16-foot sidewalk), but never be less than 6 feet, whichever is greater.
3. Minimum Vertical Clearance. The Pedestrian Zone should maintain a minimum vertical height clearance of 96" (i.e., 8'0"), clear of overhanging tree limbs, protruding fixtures such as awnings, signs, or other horizontal obstruction.
4. Transitions. To ensure pedestrian safety and smooth flow of traffic, transitions in the width of the Pedestrian Zone should not be abrupt and should be signaled by some sort of transitional element.



Ideally, the pedestrian zone will comprise at least 50% of the sidewalk width.

Pedestrian zone:
50% of overall sidewalk width,
or 6', whichever is greater

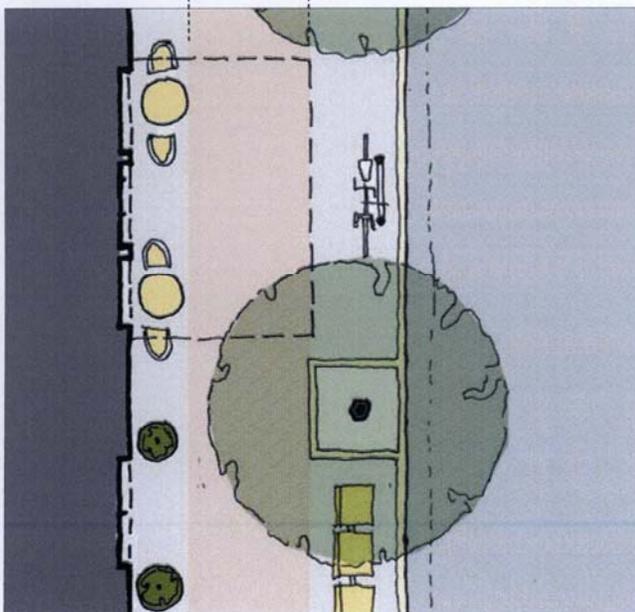


Figure 1: Plan diagram of sidewalk, with Pedestrian Zone highlighted



Umbrellas, awnings and trees should maintain vertical clearance above the pedestrian zone.

1. Public Sidewalks

b. Functional Zones II: Public Amenity Zone

PRINCIPLE: A public amenity zone shall be provided, where sidewalk widths allow, within the pedestrian realm that provides space and amenities within the public sidewalk that contribute to pedestrian comfort, convenience, safety and interest, and support positive social interaction.

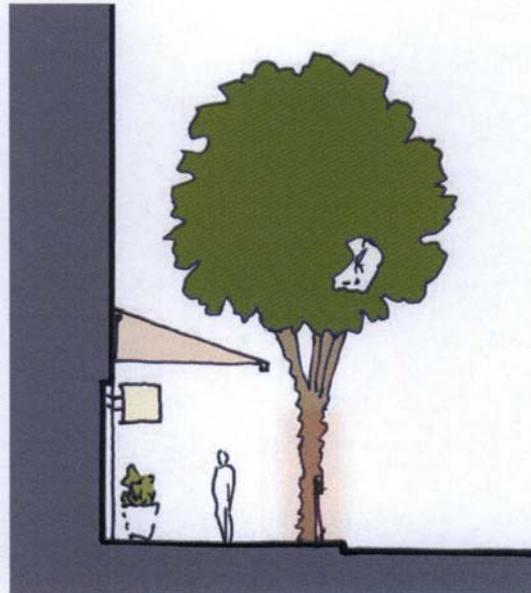
Background & Intent

The Public Amenity Zone serves several important functions. As the section of the pedestrian realm that adjoins the street, it serves as both a transition area and buffer between pedestrian circulation and vehicular circulation. It provides both a physical and psychological buffer that contributes to pedestrian comfort and well-being, and allows those who have parked on-street to conveniently access adjoining businesses.

In addition to buffering pedestrians from vehicular traffic, amenities located in this zone provide comfort and interest for pedestrians, improve the visual appearance of the street, and add to its utility as a functional space. Streetscape amenities that enhance and serve the pedestrian zone include features such as street trees, landscaping, seating, news racks, public art, and public restrooms. Additional features such as streetlights with banners, informational signage, planters, etc. add color and festivity to the street and further enhance the pedestrian experience. The Public Amenity Zone is also the appropriate location for most utilities and service facilities, such as street lights, parking meters, fire hydrants, and transit facilities.

Maintaining consistent standards for the design and placement of public amenities helps to define the identity of the Central City and enhance its function. Design and placement of public amenities such as street furniture along a corridor should be well coordinated to ensure that all improvements contribute to a coherent design treatment for a given thoroughfare and avoid conflict with other streetscape elements.

If not appropriately sited, street furniture can clutter the sidewalk, interfering with travel, and stifling, rather than supporting, active street life. Keeping street furniture, such as newspaper stands, orderly and compact helps to increase the amount of space for pedestrian movement, especially on narrower sidewalks



Public Amenity Zone



The Amenity Zone accommodates a variety of functional and aesthetic amenities.

1. Public Sidewalks

b. Functional Zones II: Public Amenity Zone (continued)

Guidelines

1. **Location.** Public utilities and street furniture generally should be consolidated in the Public Amenities Zone to keep them from becoming obstacles in the Pedestrian Zone. This includes, but is not limited to street trees, planting strips, street furniture, bicycle parking, utility poles, signal poles, signal and electrical cabinets, signs, fire hydrants, etc.
2. **Width Proportions.** The Public Amenity Zone should comprise at least 35% of the sidewalk width (i.e., 6.5 feet for the standard 16-foot sidewalk), but never be less than 30%, or 4 feet, whichever is greater.
3. **Distribution and Concentration.** Whereas the function of features such as light standards, street trees, and parking meters requires an even distribution along the length of a street, street furniture should generally be located in high activity areas where people can be expected to congregate, such as transit stops, major building entrances, plazas, and retail and entertainment zones.
4. **Opportunities at Intersections.** The Public Amenity Zones at intersections, particularly where they have been expanded by necked down intersections, are ideal locations for streetscape elements that serve high levels of pedestrian traffic, such as transit shelters, informational kiosks, and news racks. Benches and seating areas should typically be located in mid-block locations where there is less potential conflict with pedestrian traffic flow.
5. **Consolidate Parking Meters.** In order to reduce clutter within the amenity zone, facilitate on-street parking, and increase parking revenues, the City should install multi-space and pay-and-display parking meters that require one meter for every 3 to 4 parking spaces. Currently, such a system is used in Old Sacramento and near Cesar Chavez Park.
6. **Setback from Curb.** To the degree feasible, elements within the Public Amenity Zone generally should be setback at least 3 feet from the face of the street curb to avoid conflict with on-street parking (e.g. car doors, passenger loading, etc.), but no less than 1.5 feet.
7. **Location of Utilities.** Where practical, handholes, vaults, and other utility access points should be located out of the sidewalk area, and in the private parcel area. Above ground utility boxes, control panels, etc. should be discouraged or located outside of the pedestrian realm of the sidewalk zone.
8. **Undergrounding of Utilities.** In order to reduce conflict with pedestrian movement and improve the aesthetic character of the public realm, utilities should be undergrounded whenever feasible, particularly on major and commercial streets.
9. **Unified Design Identity.** Provide a continuity of streetscape features along the length of a street. At a district scale, coordinated design, type, color and material of street furniture contribute to a sense of community identity, and reflect and strengthen the local character.
10. See Street Furnishings and Amenities section for additional information and guidance.



Clearly defined Public Amenity Zone

1. Public Sidewalks

b. Functional Zones II: Public Amenity Zone (continued)

Implementation Recommendations

1. Develop a streetscape furnishings master plan that identifies a coordinated palette of municipal streetscape furnishings for areas in the CBD and other districts, including elements such as street lights and standards, public restrooms, kiosks, benches, trash receptacles, etc.
2. Coordinate with the Economic Development Department, the Downtown Sacramento Partnership, and CADA to identify neighborhoods and districts that should develop area-specific streetscape master plans to guide the long-term enhancement of their public streetscape, and a strategy for implementation.
3. Develop policy recommendations for the accommodation of street vendors, as to locations, hours, etc.

1. Public Sidewalks

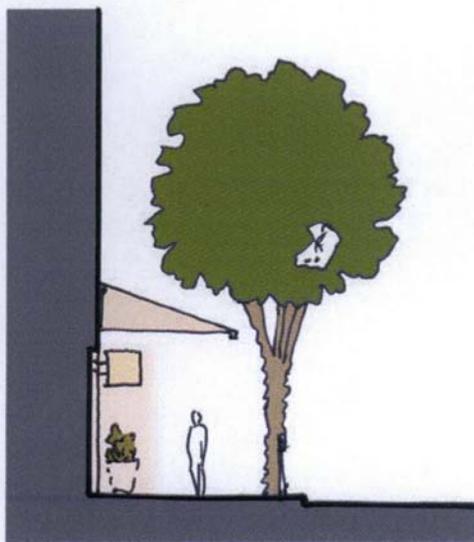
b. Functional Zones III: Frontage Zone

PRINCIPLE: A frontage zone shall be provided, where sidewalk widths allow, within the pedestrian realm that supports adjoining commercial uses by accommodating private elements, features, and activities within the public right-of-way.

Background & Intent

The frontage zone represents the outer edge of the public right-of-way and is typically defined by a building façade, and less frequently by landscaping, a fence, wall, a plaza or surface parking. This zone provides the interface between the circulation on the public sidewalk and the interior of adjoining buildings. As such, businesses are allowed to extend uses, displays, street furniture, and other elements into the frontage zone as a means of engaging passersby and activating the public streetscape.

In addition, pedestrians generally are less comfortable moving at a full pace directly along a building façade or wall, so the frontage zone provides some setback that allows for people to move out of the flow of traffic, to window shop, and to enter and exit buildings easily. Typically, the width of the frontage zone will vary with the nature of adjoining uses, with retail and entertainment districts having larger frontage zones than districts that have predominantly office and residential uses at the street level.



Frontage Zone

Guidelines

1. **Private Furnishings.** Private furnishings permitted in the frontage zone may include seating and tables, merchandise displays, planters, art, and portable signage (e.g., menu stand).
2. **Decorative Elements.** On streets with commercial frontages, businesses are encouraged to provide decorative elements (e.g., landscaping, potted plants, etc) that activate the public streetscape, visually enhance the building frontage, identify building entrances, and generally engage the public realm, without constricting the flow of pedestrian traffic.
3. **Sidewalk Cafes.** Sidewalk cafes are encouraged within the frontage zone as a use that activates and energizes the public realm.
4. **Extension into Amenity Zone.** In certain situations sidewalk cafes and other commercial activities may be allowed to extend into the amenity zone rather than the frontage zone, or where extra wide sidewalks occur in both the frontage and amenity zones. Such use will require special findings to ensure such use and facilities enhance the overall quality of the public realm and do not impede pedestrian traffic or conflict with access to on-street parking.
5. **Vertical Clearance.** Awnings, canopies, and umbrellas used within the frontage zone should provide adequate vertical clearance so they do not infringe upon the pedestrian travel zone.
6. **Delineating Sidewalk Cafes.** Sidewalk cafes that have more formal dining facilities (i.e., offer waiter service to their tables) or more than a single row of tables should provide a decorative element, such as a railing, rope divider, etc., that delineates the café from pedestrian travel zone. (This is a state requirement for serving alcohol.) Such delineation is not required for less formal eateries such as cafes, coffee shops, and sandwich shops that have a single row of chairs and tables.

1. Public Sidewalks

b. Functional Zones III: Frontage Zone (continued)

7. Permitting. All private use of the frontage zone should be required to obtain an encroachment permit.
8. Width. The minimum frontage zone width is 1.5 feet. A frontage zone is not needed if the sidewalk corridor is adjacent to a landscaped space.
9. Constrained Frontage Zones. In the event there is insufficient right-of-way width, the frontage zone can be reduced to augment widths of the walkway and amenity zones. If there is insufficient frontage zone space to accommodate private uses such as cafes and sidewalk displays, additional area should be taken from the private realm rather than constrain the function or character of the walkway and amenity zones.

Implementation Recommendations

The City should review its procedures for permitting encroachments into the public right-of-way, and ensure that criteria for permitting such encroachments are consistent with the objectives and guidelines for the public realm.



Deeper frontage zones can accommodate landscaping and seating.



In cases where tree plantings are infeasible within the public amenity zone, planters within the frontage zone can provide a landscape element to the streetscape.

1. Public Sidewalks

c. Paving

PRINCIPLE: The pedestrian environment and the quality of the pedestrian experience shall be further enhanced, defined and made legible through the use of coordinated, attractive, and high-quality paving surfaces.

Background & Intent

The character and consistency of the paving of public sidewalks contributes greatly to streetscape identity and the quality of the pedestrian realm. Inconsistent use of paving materials and patterns becomes a source of visual clutter and reveals a lack of pride and clarity about the role of the public realm, and a lack of commitment to a quality pedestrian environment. A coordinated, high quality paving scheme can introduce pedestrian-friendly qualities such as human scale, connectivity, and coherence to the public realm. A consistent use of paving material, color, pattern and finish, provides visual cues that help define the public realm and contribute to ease of pedestrian access and safety.

While paving can be a highly distinctive design element, the first priority should be on establishing a consistent design vocabulary that visually unifies Central City streets and establishes a pleasing and interconnected pedestrian realm. Only secondarily should paving be used to distinguish individual uses and sites, or establish a specific theme.



Sidewalk paving should be divided into a grid that fits the typical 16 foot wide sidewalk.

Guidelines

1. **Materials.** Sidewalks generally should be paved with grey Portland concrete with a broom, or light sand-blasted, finish.
2. **Color and Heat Absorption.** In order to reduce heat absorption and heat island effects and enhance pedestrian comfort, sidewalk paving should be light grey in color rather than continuing the practice of adding lampblack to match historic sidewalks.
3. **Dimensions.** Sidewalk paving should be divided into a grid of 2-foot squares that fits within the typical 16-foot wide sidewalk. The 2-foot dimension is nominal and can be adjusted in equal measurements either up or down. For instance, if a 52" tree grate is used, the grid system should be adjusted to accommodate that dimension.
4. **Decorative Paving -- Restrictions.** In order to maintain a consistent character to the streetscape, decorative paving for building entrances, plazas, etc., generally should be restricted to the private realm, and not extend across the public sidewalk.
5. **Decorative Paving -- Allowances.** Limited decorative paving or elements will be allowed within the frontage and walkway zones as long as such improvements:
 - I. Are less than 16 square feet in area (i.e., less than one 16' x 16' pavement module);
 - II. Are unique elements that contribute to the character and identity of the streetscape (e.g., private identity logos/emblems, historical plaques/markers, public art, etc.); and
 - III. Have design review approval.
6. **Alternative Paving Materials.** Alternative paving materials (e.g., unit pavers, porous pavement, etc.) may be allowed in the amenity zone, particularly if they reduce stormwater runoff and enhance street tree health and viability. Such materials will still be required to conform to the paving pattern established by the 4-foot grid.

1. Public Sidewalks

f. Paving (continued)

7. **Special Districts.** In instances where there is a desire to establish a distinct identity for a street or district, other higher quality paving materials, such as stone pavers, may be used for the public sidewalk as long as there is consistent application for no less than the perimeter of a half block (i.e., the paving treatment should wrap around the block from alley to alley).
 8. **Accessibility and Safety.** The design and composition of sidewalk paving must maintain smooth and level surfaces that meet universal accessibility requirements, and have a non-slippery surface when wet.
 9. **Sustainable Materials.** Recycled and/or locally-sourced paving materials should be specified whenever feasible in order to minimize resource depletion and energy to transport. For example, using fly ash - a material that is pre-consumer recycled content - as a substitute for portland cement in concrete.
 10. **Stormwater Management.** The use of permeable or porous pavement in the amenity zone is encouraged whenever feasible as a means of reducing stormwater runoff rates and volumes.
 11. **Granite Curbs.** Existing granite curbing shall be retained and replaced when disturbed by construction or repair work. On blocks where sections of granite curbing are missing, new granite curbs should be re-introduced in conjunction with new development or sidewalk repair to create a consistent, high-quality street edge.
 12. **Coordination with Public Facility Placement.** The siting and design of public facilities such as street lights, tree wells, utility vaults, etc. should be coordinated with and responsive to the standard paving module, and not simply ignore the established ground plane pattern.
- and alleys (i.e., maximum of 15 feet or 5% of the property frontage, whichever is greater--CCNDG 5.B5 5-2) for consistency with these guidelines.
- B. Review, and revise as appropriate, Center City Neighborhood Design Guideline 5-3 requiring scoring patterns on new sidewalks to match historic pattern on adjacent sidewalks rather than the standard 4'x4' grid.
 - C. Review, and revise as appropriate, Center City Neighborhood Design Guideline 5-4 requiring the addition of lampblack color additive to all sidewalks in the public R.O.W.
 - D. Work with the community to explore and develop the idea of an "historic walk" that incorporates special markers in Central City sidewalks that commemorate significant locations, persons, architecture, or events that tell the story of Sacramento and California.
 - E. Review, and revise as appropriate, the City's Design Procedures Manual and Improvement Standards & Standard Specifications for Public Works Construction for consistency with these guidelines.



Decorative paving or elements are allowed within the public amenity zone, but limited within the frontage and pedestrian zones.

Implementation Recommendations

- A. Review, and revise as appropriate, the Department of Public Works criteria for approving encroachment permits related to variations in pavement for sidewalks

2. Street Furnishings and Amenities

a. General Guidelines

PRINCIPLE: Public street life shall be supported by providing quality facilities and amenities in the public streetscape that are an attractive and comfortable environment for people to congregate.

Background and Intent

As the “living room” for community life in the downtown, it is important that the pedestrian realm be appropriately furnished. In order to transform the public streetscape from mere transportation facility to vibrant public open space it is important to add facilities and amenities that: allow people to stop and linger, provide services and information, and engage and delight the senses.

Streetscape amenities such as benches and seating areas, kiosks, news stands, news racks, drinking fountains, water features, bike racks, transit facilities, restrooms, trash receptacles, and public art all help to animate the pedestrian realm, support public use, and contribute to the social and economic vitality of the downtown.

Streetscape furnishings also have much to do with establishing the character and identity of an area. Their quality, durability, and location all influence the perception and use of an area. Streetscape furniture also includes both public and private furnishings. The public furnishings are the elements that provide continuity and predictability from block to block, while private furnishings are generally contribute variety to the streetscape with their focus being on enriching and enlivening a particular building or use.

1. General Guidelines

- A. Variety. Public streetscape furnishings should include a variety of amenities and selection of materials that add to the excitement and vitality of downtown.
- B. Unified Design Identity. Street furnishings should provide a continuity of streetscape features along the length of a street. At a district scale, coordinated design, type, color and material of street furniture contributes to a sense of community identity, and reflects and strengthens the local character of the Central City.
- C. Context. Street furniture should strengthen sense of place by utilizing design, materials, and colors that best complement the context of existing buildings and landscape.

- D. Accessibility. Street furniture needs to be designed for universal access and to facilitate use by those of all ages and abilities.
- E. Seating. As much formal and informal seating as possible should be provided to increase the number of opportunities for people to socialize and spend leisure time outdoors along public streets.
- F. See Public Amenity Zone section for additional information.

2. Location

- A. Pedestrian Activity Areas. Street furniture and other amenities such as trash receptacles, kiosks, public telephones, newsstands, should be located in conjunction with active pedestrian areas such such as intersections, key building entries, public parks and plazas, bus stops, important intersections and pedestrian streets.
- B. Public Amenity Zone. Street furniture and other amenities will be located predominantly in the public amenity zone to unambiguously indicate public use and maintain a clear zone for walking. If public amenities are located in the frontage zone adjacent to private property, they should be designed in such a way that they do not preclude public use.

3. Newsracks

- A. Consolidate newspaper racks into consistently designed newspaper boxes to reduce the physical and visual clutter of individually placed newspaper boxes.
- B. Prohibit the clustering and chaining of news boxes to trees, street signs, and utility poles.
- C. Newspaper racks generally should be located at intersections, and where possible, co-located with transit stops, to provide an amenity to transit riders.

2. Street Furnishings and Amenities

b. Miscellaneous

4. Wayfinding Signage

- A. The City's existing wayfinding system should be expanded and enhanced to serve both the needs of out-of-town visitors as well as citizens of Sacramento.
- B. The Central City wayfinding system should:
 - I. Provide directional and information signs that are attractive, clear and consistent in theme, location, and design.
 - II. Identify key historic, cultural, civic, and shopping destinations and facilities, e.g., public parking structures, parks and open space areas, transit routes and stops, etc.
 - III. Be co-located with other streetscape furniture (e.g., light standards, transit shelters) where possible to reduce visual clutter in the public realm.
 - IV. Be expanded to cover the entire Central City, including redevelopment areas.



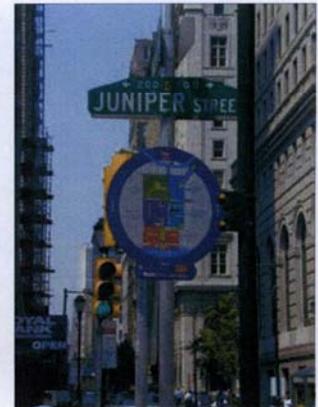
Consolidated newsracks provide an opportunity for adding artistic elements to the streetscape.

4. Kiosks and Restrooms

- A. Kiosks and restrooms should be located in high-activity areas such as public plazas and intersections. They should be constructed of durable materials that can be easily maintained.
- B. Kiosks are places for both permanent and temporary signs. The kiosks should be designed with permanent signage in mind that ties into the wayfinding system; surfaces should be provided for taped or stapled temporary signs. Temporary signs should be removed regularly (e.g. monthly) to avoid clutter.
- C. Design systems should be explored that combine restrooms and kiosks into a single structure.



Kiosk



Wayfinding Signage

5. Seating

- A. Benches and other forms of seating (e.g., low walls, planter edges, wide steps, etc.) should be provided throughout the downtown, with more seating provided in areas with ground-level retail frontages and at entrances to major employers.
- B. Attractively designed City benches should be provided in sidewalks, plazas, and parks to promote pedestrian use. These benches should be fixed in place and constructed



Public Restroom

2. Street Furnishings and Amenities

b. Miscellaneous (continued)

of durable and low-maintenance materials. Benches at bus stops should be incorporated into the design of the bus shelter.

- C. Use of individual, movable chairs is encouraged where there is an organization which is willing to manage their use (e.g., secure the seats at night). Such seating provides appealing flexibility that can enhance public use.
- D. The creation of seat walls, steps, and planters that can serve as informal seating areas is encouraged as a means of expanding the seating potential and providing diverse opportunities for social interaction.



6. Trash and Recycling Receptacles

- A. Trash receptacles should be located regularly at intersections, near major building entrances, and adjacent to outdoor seating areas.
- B. Each receptacle should accommodate recycling, prevent wind and rain from entering the container, facilitate convenient access to the liner, and have the option of being anchored to the pavement.
- C. The style and color of the City's trash receptacles should be coordinated with the selected bench design and be consistent throughout a district or the Central City.

7. Bollards

- A. Where necessary, bollards with should be used to prevent vehicles from entering pedestrian zones.
- B. Bollards may also be used to mark pathway entries at public-private interfaces.
- C. Bollard placement and design should be coordinated with emergency vehicle access; in certain locations, removable bollards may be appropriate to balance pedestrian protection with emergency access.
- D. Bollard style and color should match the selected bench and be consistent throughout a corridor or district.



Expanded sidewalk creates additional space for seating and other amenities. (Examples: University Avenue, San Jose, CA and Castro Street, Mountain View, CA)

2. Street Furnishings and Amenities

b. Miscellaneous (continued)

8. Tree Grates

- A. Tree grates should be used in commercial districts and areas with high pedestrian activity to protect trees and reduce safety hazards.
- B. Tree grates should be used in all tree wells that are surrounded by paving, unless the wells are specifically designed for accent planting. In areas with lower levels of pedestrian activity, decomposed granite or gravel instead of tree grates may be permitted.
- C. Grates that allow for integrated tree guards, decorative lighting, electrical fixtures and auxiliary power (for special events, holiday lighting, or maintenance) are encouraged.

9. Parking Meters

The City should move toward installing pay-and-display solar powered parking meters throughout the Central City. These meters are well-designed, reduce clutter in the pedestrian realm, conserve energy, increase revenues, and are customer friendly.

Implementation Recommendations

1. Develop a streetscape furnishings master plan that identifies a coordinated palette of municipal streetscape furnishings for the CBD, including elements such as street lights and standards, public restrooms, kiosks, benches, trash receptacles, etc.
2. Coordinate with the Economic Development Department, the Downtown Sacramento Partnership, and CADA to identify neighborhoods and districts that should develop area-specific streetscape master plans to guide the long-term enhancement of their public streetscape, and a strategy for implementation.



Tree grate with integrated tree guards.

2. Street Furnishings and Amenities

c. Bicycle Racks

PRINCIPLE: Bicycle use shall be supported by providing ample bicycle parking that is both secure and conveniently located.

Background and Intent

Bicycle use is a convenient, non-polluting means of transportation that can play a significant role in creating a less automobile-dependent Central City. The flatness of Sacramento's terrain and the highly inter-connected street system both support cycling as a viable way to move around the city.

However, bicycles, like cars and people, need to have facilities that support them if they are going to be widely used. Such facilities include travelway realm facilities such as bike lanes, pedestrian realm facilities such as bicycle parking, and private realm facilities such as indoor showers and changing rooms. Of the three, provision of secure bicycle parking may be the most critical factor in supporting bicycle travel. Once cyclists reach their destination, they must be able to leave their bicycles without fear of theft. Similarly, bicycle parking needs to be convenient to cyclists' destinations or it will discourage use.

While a good percentage of parking for regular bicycle commuters should be provided in buildings and parking structures (see Private Realm parking guidelines), it is also important to provide short-term bicycle parking in the public

right-of-way. The design of the public realm should consider bicycle parking a fundamental design element that needs to be integrated with those needed for pedestrians, cars, and transit. While in some instances it may be appropriate to locate bicycle parking in the parking lane of the street, in most instances bicycle parking should be located within the public amenity zone of the sidewalk.

Bicycles, however, by their nature, are somewhat awkward elements, physically and visually, to integrate into the limited space provided in the public amenity zone. If poorly located, bicycle parking can interfere with pedestrians, clutter the sidewalk, detract visually, or simply not be used.

Guidelines

1. **Distribution.** Bicycle parking within the public sidewalk generally should be accommodated with a number of smaller racks distributed along the length of a block, rather than one or two large concentrations of bike racks.
2. **Adequate Clearance.** Bicycle racks should be located so that parked bicycles do not block the travel path of pedestrians or infringe upon seating areas. In addition, racks should be located at least 3 feet from the curb to accommodate ingress and egress to parked vehicles.
3. **Convenience.** Ideally, short-term bicycle parking should be located within 50 feet of building entrances. Where a building has more than one main entrance, the parking must be distributed to serve all buildings or main entrances.
4. **Weather Protection.** Shelters should be considered for larger parking areas where long-term bicycle parking is expected. If more than 10 short-term spaces are required, at least 50% should be covered.
5. **Visibility.** Bicycle racks should be located in prominent locations within the public amenity zone that are clearly visible to cyclists from the street and from adjoining buildings and public spaces. Placement in view of doors



Expanded sidewalk with bicycle parking.

2. Street Furnishings and Amenities

c. Bicycle Racks (continued)

and windows will ensure adequate surveillance from building occupants and visitors. Avoid locating bicycle parking in isolated areas, dark locations, or garage recesses.

6. **Traffic Calming.** Due to the space required for bicycle parking, curb extensions are good locations to site bicycle racks, as long as the facilities do not interfere with pedestrian circulation. Providing space for bicycle parking should be considered a design criterion when designing curb extensions.
7. **On-Street Parking.** As cycling popularity increases in the future, on-street vehicle parking spaces may be converted to bicycle parking in locations where space in the public amenity/furnishings zone of the sidewalk is crowded or insufficient to meet demand.
8. **Secure Rack Design.** Bike racks should be designed to allow the bicyclist to secure the bicycle frame to the device at two points of contact. Appropriate bicycle rack designs include the inverted U, the ribbon type rack, or the corkscrew.

Implementation Recommendations

- A. Review bicycle parking best practices in other bicycle-friendly cities, such as the City of Portland Office of Transportation Bicycle Parking Facilities Guidelines, and adopt standards for required bicycle parking based on use.
- B. Consider the use of “bicycle stations” at locations where high volumes of bicyclists exist or are anticipated. Bicycle stations are publicly or privately operated facilities that offer an array of services, including valet bike parking, repairs, parts, information, and possibly showers.
- C. Include bicycle lockers in all municipal parking garages. Adequate signage should be provided to inform bicyclists of the facilities and their location. Racks and/or lockers should be located in areas visible to the parking attendants.



Prominently located bicycle racks on sidewalk bulb-out.



Bicycle racks can serve as an attractive design feature.



Bicycle racks as sculptural element.

3. Transit

PRINCIPLE: The use of transit shall be supported by providing attractive, comfortable, and highly functional transit stops.

Background / Intent

In order to encourage and support community use of transit, it is imperative that transit service and facilities reflect a care and quality that conveys its importance to implementing the vision for the Central City and the City's Smart Growth and Sustainability goals. People will only leave their cars for transit if the experience is a pleasant and rewarding one.

To date, RT facilities, including transit furniture such as shelters, trash receptacles, maps and schedules, etc. do not always convey the character or quality envisioned for the downtown. As major elements of the public streetscape there is the opportunity for transit stops to become more than just utilitarian infrastructure. Instead, they can become symbols and attractive physical manifestations of Sacramento's commitment to a more sustainable, transit-friendly future.

Guidelines:

1. **Schedule Information.** All transit stops should be prominently signed and all pertinent route and schedule information, including major connecting services, should be posted.
2. **Shelters and Seating.** Transit shelters should be provided at heavily used transit stops; all stops should provide seating.
3. **Architectural Design.** Transit shelters should be designed to provide protection from sun, wind, and rain. Transit shelters and other amenities should be distinctive through strong architectural design that reflects the character of the district.
4. **Amenities.** Amenities such as Global Positioning System (GPS)-based real-time arrival information, ticket machines, nighttime lighting, and trash receptacles should be provided.
5. **Sustainability.** Transit shelters should be designed to promote transit and energy efficiency by incorporating features such as solar panels, LED lights, etc.

6. **At-Grade Access.** Ultimately the City and RT should transition to low-boarding trains and replace all of the existing ramps and raised platforms with at-grade stops.

Implementation Recommendations

- A. The City should work with RT to articulate its design objectives for transit; prepare a Best Practices Manual for transit-oriented planning, design, and development in Sacramento; and develop a coordinated street design review process and specifications that adhere to objectives set forth in the Urban Design Plan.
- B. The Parks and Recreation Department should work with RT to explore place-making strategies around transit that include opportunities for integrating open space improvements at key transit stops.



Attractive transit facilities, such as comfortable shelters with posted route information, encourage transit use.

4. Landscape

PRINCIPLE: Trees and other plant materials shall be provided as a means of enriching the pedestrian experience, enhancing downtown aesthetics, and improving the ecological function of the urban environment.

Background / Intent

Traditionally, as downtowns became denser and more urban, they also tended to eliminate or severely reduce the amount of greenery in the urban environment. While sustaining plants in an urban environment is more challenging, urban environments need not be devoid of plant materials. Growing plants are one of the most important elements in creating a humane streetscape and attractive public realm. For this reason, Sacramento's reputation as the "City of Trees" is a key component in its desire to be America's most livable city.

Trees and plants soften the city's hard surfaces and sharp edges, not just by screening but also by adding organic forms, colors, textures, and movement to the urban setting. They also add scale to the downtown environment that people can readily relate to, and, as living organisms that grow and change with the seasons, introduce a dynamic quality that mitigates the largely inanimate character of the built environment. Of course, coordinated selection and spacing of tree species and other plantings also can help to establish a distinctive identity for a corridor or district.

While creating a more attractive environment is important, it is only one of the benefits gained from maintaining a well-landscaped downtown. Landscaping also contributes to creating a healthier and more sustainable downtown. A diverse and healthy urban forest provides many environmental benefits, including enhanced energy efficiency, stormwater management, air quality, and wildlife habitat.

Trees provide an inexpensive form of "air-conditioning" by contributing to micro-climate control during the hot summer months. The shade provided by a mature tree canopy reduces the build up of surface temperatures in paving and buildings (i.e., the "urban heat island effect" *). This, in turn, makes streets more comfortable for pedestrians and reduces air conditioning required for buildings, both of which result in reduced energy consumption and improved air quality. A more comfortable pedestrian environment means fewer vehicle trips, less gas consumption, and fewer carbon



Street trees supplemented with additional landscaping create an inviting streetscape.



Landscaped median adds visual interest.

emissions. Reduced air conditioning means less electricity used and less air pollution related to power generation.

The combination of foliage cover, pervious surfaces, and evapo-transpiration provided by trees and other vegetation contribute to improved stormwater management and water quality, and reduced demand on City infrastructure. The combination of foliage cover and pervious soil slows stormwater runoff and increases groundwater infiltration. By

4. Landscape (continued)

doing so, it also reduces peak storm flows that periodically contribute to exceedances in the capacity of the City's combined sewer system and the resulting overflow of untreated water into the river.

The urban forest also helps battle climate change, by removing carbon, a major contributor to the "greenhouse effect", from the atmosphere. Through the process of photosynthesis, trees remove carbon dioxide (CO₂) from the atmosphere and store it in their cellulose. Tree and other plant foliage also absorb other gaseous pollutants through their leaf surfaces and can remove up to 60% of the particulate matter from the atmosphere.

Clearly Sacramento's robust urban forest is a significant amenity and asset. The mature tree canopy that graces the downtown streets and parks leaves an indelible impression on those who visit Sacramento and engenders great pride for Sacramentans. Maintaining and expanding that urban forest as the Central City expands and intensifies represents an ongoing challenge. There has been increasing concern about the potential implications for the health of the urban forest as taller buildings with subsurface garages are built to right-of-way lines, occupying space previously available for tree canopies and roots. With the Central City expanding into redevelopment areas such as the Railyards, River District, and Docks Area, there is an opportunity to ensure that future development reserves the space needed for a healthy urban forest.

The very maturity of the City's urban forest raises another challenge, which is how to maintain its health as existing trees reach an age at which they naturally begin to decline. Finally, today's urban forest was planted primarily to provide shade and enhance neighborhood aesthetics. As the City embarks on an agenda to become more sustainable, a more comprehensive strategy for landscaping the urban environment is needed that more fully engages the urban forest's environmental function and optimizes its role as part of Sacramento's green infrastructure.

*The term "heat island" refers to urban air and surface temperatures that are higher than in nearby rural areas due to decreased vegetation, reduced air flow due to buildings, and waste heat from cars, air conditioners, and other forms of energy consumption.



Large expanses of pavement can be broken up with landscape elements.

4. Landscape (continued)

1. General Landscaping Guidelines

- A. **Comfort and Interest.** Landscaping should be introduced to the public realm to contribute to the quality of the pedestrian experience by adding color, texture, and form that add visual interest, and providing scale, shade, and buffering that contribute to the sense of comfort.
- B. **Planters.** In order to provide variety and visual interest, public realm landscaping may include permanent above-grade planters, movable pots and planters, and hanging planters in addition to tree wells and planting strips.
- C. **Location.** Typically, the Public Amenity Zone separating the sidewalk from the street will be the primary landscape zone, although landscaping can be introduced to all sidewalk zones as long as adequate clearance is maintained.
- D. **Urban Context.** Plant materials should be in scale and compatible with the adjacent land uses and buildings. Plant materials and landscaped areas should be used to enhance the appearance of structures, define site functions and edges, and screen undesirable views.
- E. **Local Climate and Ecology.** Plant species should be selected that are suited to climatic conditions in Sacramento, including native or naturalized species that provide potential habitat for local wildlife.
- F. **Reduction of Water Consumption.** To minimize maintenance and water consumption, emphasis should be placed on the selection of native, drought-tolerant species, and all landscape areas should be irrigated with high-efficiency automatic drip and low-flow watering systems.
- G. **Water Reuse.** To minimize water consumption associated with public realm landscaping, the use of rainwater harvesting and recycled water for irrigation purposes should be encouraged and expanded.
- H. **Planting Conditions.** When selecting trees and planting material, consideration should be given to their compatibility with the physical conditions of the urban setting, such as limited space for roots and canopies, limited soil fertility, impervious coverage of the root



Raised planters create informal seating opportunities.



Landscaping can be accommodated in a combination of planting strips and pots.



Planters with seasonal plantings can add color to the streetscape.

4. Landscape (continued)

zone, heat build up, increased urban pollution, and compatibility with adjacent uses.

- I. Plant Selection. Plant species should be responsive to existing species and planting patterns, although planting diversity is allowed where it complements and does not detract from a prevailing planting theme or pattern.
- J. Plant Selection for District/Corridor Identity. Species selection should include one or two species that are repeated regularly over the length of a block(s) or throughout a district to provide visual continuity.
- K. Maintenance. Landscaped areas should be properly maintained, which includes watering, removing debris and litter, and pruning and replacing plants when necessary. Adjacent private property owners are required to maintain the grounds and trees on any unpaved portion of the adjacent public street right-of-way where space is provided for a city street tree or other planting, regardless of whether the adjacent property is developed.
- L. Vertical Clearance. To maintain proper clearance:
- M. Shrubs should be trimmed to three (3) feet or less in height above the grade of the sidewalk
- N. Tree canopies should be trimmed up to at least eight (8) feet over the sidewalk and fourteen (14) feet above the street.
- O. Seating. Permanent above-ground planters should be designed so that the height and width of planter walls create suitable opportunities to double as informal seating areas.
- P. Stormwater Management. Wherever feasible, landscaped areas should incorporate pervious or unpaved surfaces to aid in stormwater management and reduce the "heat island effect."



Landscaping can contribute significantly to the identity of an area.



Movable landscape elements provided by businesses

4. Landscape (continued)

2. Street Tree Guidelines

- A. **Tree Protection.** Maintain and protect existing mature trees wherever possible, including notching or stepping back of buildings where trees are deemed to be of significance (refer to Private Realm guidelines for more discussion of building adjustments to pre-existing street trees).
- B. **New Tree Plantings.** New and/or replacement street trees should conform to the predominant existing planting pattern with respect to species, spacing, and alignment.
- C. **Trees in New Development Areas.** Street trees represent a critical framework element and piece of green infrastructure within the public right-of-way. In newly developing and/or redeveloping areas such as the Railyards, River District, and Docks Area, street tree design, including species selection, tree spacing, and planter dimensions, should occur concurrently with the development's build-to lines & setbacks. Street tree design should occur concurrently with, and guide, the selection and placement of public facilities such as street lights and signage, rather than being treated as an afterthought.
- D. **Horizontal Clearance.** To maintain proper clearance and sight lines, street trees generally should be located no closer than:
- I. 10 feet from a building façade,
 - II. 25 feet from the curb line of an intersection,
 - III. 5 feet from a driveway or alley,
 - IV. 5 feet from fire hydrants, underground utilities, utility poles, and parking meters
 - V. 3 feet from sidewalk furniture,
 - VI. 3 feet from curb adjacent to parallel parking; 4 feet from curb for perpendicular and diagonal parking,
 - VII. 15 feet from street lights.
- E. **Canopy Cover.** Street tree spacing should support the City goal of achieving at least 50% shade coverage of streets and paved areas. While canopy coverage will be less in higher-intensity, urban areas, the level of canopy coverage of the public realm (i.e., public rights-of-way, parks, and plazas) in the Central City's established neighborhoods suggest that the following guidelines should be used:
- I. 35% coverage in the CBD,
 - II. 50% coverage in transition areas, and
 - III. 65% coverage in predominantly residential neighborhoods.
- F. **Tree Spacing.** The maximum spacing for street trees should not exceed 40 feet on center. The minimum spacing for street trees is 12 feet for trees with small mature size. The optimum spacing should be responsive to species type and canopy characteristics. As a general rule, the following spacing should be used:
- I. Large canopy trees: 30 to 40 feet on center
 - II. Medium canopy trees: 20 to 30 feet on center
 - III. Small canopy trees: 15 to 20 feet on center.



Sacramento is renowned for its street trees. Preserving and enhancing the existing canopy is a top priority.

4. Landscape

(continued)

G. **New Space for Additional Trees and Plantings.** In order to achieve the City's objectives for canopy coverage and enhance its identity as the City of Trees even as development intensities in the Central City become more urban, alternative tree planting configurations should be pursued that allow for more trees of all sizes to be planted, including more large canopy trees. Changes in the public right-of-way that could accommodate additional and more sustainable tree planting include: narrowing streets (i.e., removing and narrowing lanes), adding medians and bumped out planting bulbs within the parking lane, and widening sidewalks and parkways. Such actions require reconsideration of the design of the public right-of-way, and can only be done with full consideration of the implications for the circulation function of the street (see guidelines in Section B. Travelway Realm).

H. **Double Rows of Trees.** Generally, the Public Amenity Zone serves as the primary location for street trees in order to keep the pedestrian thoroughfare clear and to provide maximum space for tree canopies. However, on wide sidewalks a second row of trees may be planted interior to the amenity zone as long as adequate pedestrian way clearances are maintained. Similarly, additional rows of trees can also be added within the curb-to-curb street cross-section within the parking zone or in a center median.

I. **Unified Tree Planting Scheme.** To optimize the beneficial effects of street trees, both aesthetic and as green infrastructure, emphasis should be placed on establishing and maintaining a consistent and well-coordinated planting scheme within a district or along a specific corridor. A formal planting scheme that uses a single, regularly spaced dominant species is appropriate for street trees in the Central City. Accent species that highlight special features or uses should be interspersed with the primary street, rather than replacing it.

J. **Pruning.** Existing street trees should be pruned, per standard practice, to provide a pleasing form, and not be topped.

K. **Vertical Tree Clearance.** Street trees should be selected that have a branching pattern and canopy height at maturity—generally fourteen (14) feet or higher—that will not obscure commercial signage and storefront windows or conflict with truck access. Lower branching heights may be appropriate in plazas or other open spaces.



Where sidewalks are wide enough, a second row of trees can be added for variety.



Continuous planting trenches covered with permeable pavers provide for healthier trees.

4. Landscape

(continued)

3. Tree Planting Guidelines

- A. **Planting Conditions.** The urban environment is not the ideal setting for growing trees. Thus, it is critical that efforts be made to provide the best possible conditions for proper tree growth when planting new street trees, including ample soil planting depth, subsurface preparation, aeration, root protection, irrigation, and drainage. Newly planted street trees will need supplemental irrigation until they are established.
- B. **Planting Trees in-ground v. in planters.** Primary street trees should be planted directly in the ground. The use of above-grade pots or raised planters for primary street trees is discouraged. The use of above-grade pots or raised planters may be appropriate for smaller accent trees.
- C. **Tree Wells.** Trees can be planted in parkway planting strips or in individual tree wells. Tree wells are preferred in higher intensity areas with high levels of pedestrian activity, particularly cross-traffic between on-street parking and adjoining buildings (e.g., retail districts, sidewalk cafes, etc.).
- D. **Tree Well Dimensions.** In order to promote tree health, tree wells should generally be 6 feet by 6 feet or larger. In constrained areas, the minimum acceptable tree well is 4 feet by 6 feet. As existing trees are replaced, existing tree wells should be expanded wherever possible.
- E. **Tree Grates.** Metal tree grates and tree guards should be used on all tree wells to protect trees, and allow for aeration and surface water collection.
- F. **Continuous Planting Trenches.** Even where tree wells are used, continuous planting trenches parallel to the curb should be installed, where possible, to provide maximum soil area for roots to spread. Trench areas should be filled with structural soil that prevents compaction and allows for better tree health, and is recommended for any tree planted in a sidewalk or hardscape plaza. The sections of trench between tree wells may be covered with steel grating, cantilevered concrete, or pavers to create additional space for pedestrian amenities while also allowing air and water to penetrate.



Park strip for street trees.

- G. **Parkway Planting Strips.** New parkway planting strips ideally should be 8 feet wide, and a minimum of 6 feet wide. Planting strip widths of 4 to 5 feet are acceptable in very constrained conditions, but are the absolute minimum width needed for most trees to survive. In areas where sidewalk zones are widened, existing narrow parkway planting strips should be widened to 6 or 8 feet, whichever is feasible. An increased distance from building façade will maximize the space available for tree branching, canopy cover, and root zones.
- H. **Areas of the Planting Strip between trees.** Areas of the planting strip between trees generally should be planted with live landscape material and not be paved with hard surfaces, except in areas that are to be specifically used for café dining. Any paving of the planting strip should provide structural support to prevent compaction of the soil and allow for percolation of stormwater.
- I. **Protecting Tree Roots.** In order to avoid damage to pavement, root barriers should be installed and appropriate, deep-rooted trees, selected.

4. Landscape

(continued)

Implementation Recommendations

- A. A Street Tree Master Plan should be prepared for the Central City that expands on and adds specificity and detail to the concepts set forth herein, and provides coordinated long-term guidance for developers and city staff alike. The Street Tree Master Plan should:
- I. Be prepared prior to any significant re-design and construction of major thoroughfare improvements within the Central City;
 - II. Be based on an inventory of existing Heritage, Historic, and other significant street trees in the Central City that in addition to species identifies tree condition, spacing, and perceived maintenance and suitability issues;
 - III. Recommend specific species that should be used on any given street or category of streets, with species selection based on the approved Sacramento Tree Planting Guide;
 - IV. Develop a menu of tree planting strategies that respond to the variety of differing circumstances present in the Central City, rather than adopting a "one size fits all" approach;
 - V. Identify specific tree species that can be used to distinguish the function of different streets and the identity of different neighborhoods and districts;
 - VI. Develop a tree replacement/urban forest revitalization strategy that addresses how the health of the mature existing urban forest will be maintained and enhanced; and
 - VII. Set specific targets and mechanisms for monitoring factors such as the number of trees planted, the amount of canopy coverage, forest health, etc.
- B. As part of a larger re-examination of street function and street tree master planning, the City should explore the role that public realm landscaping should play in meeting the City's sustainability objectives related to water conservation. Specifically, the City should explore:
- I. The concept of "green" streets that use of planting strips, sidewalk bulb-outs, and traffic circles as rain gardens and bio-swales that are designed to attenuate and filter the flow of stormwater runoff during rain events; and
 - II. The harvesting and re-use of rainwater and expanding the use of recycled municipal water to address irrigation needs within the public realm.
- C. The historic hollow sidewalk areas in the CBD present a unique situation that remains unresolved in terms of how they should be addressed from the standpoint of historic preservation as well as urban forestry and accessibility. The City should develop a comprehensive strategy for addressing the historic hollow sidewalk areas that brings together concerned parties including City departments such as Historic Preservation, Public Works, Urban Forest Services, and Economic Development, and public stakeholders such as the Downtown Partnership.
- D. The City should review and revise as appropriate the signage ordinance in order to provide better protection for the City's street trees.

5. Street Lighting

PRINCIPLE: Lighting shall be provided that creates a safe and attractive setting for the community's nighttime use of the public realm.

Background & Intent

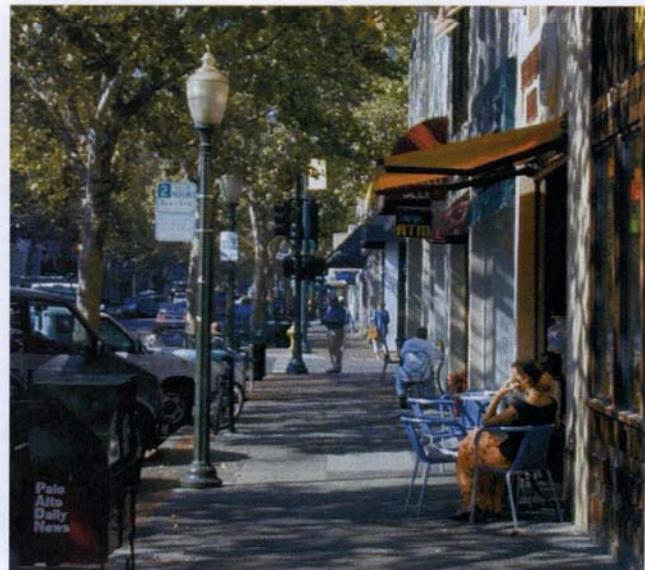
Frequently, street lighting is designed to prevent certain adverse situations (e.g., crime, accidents, etc.) from occurring, rather than to create an attractive and inviting public environment. The tendency is for lighting design of the public realm to be influenced more by fiscal expediency and vehicular circulation issues than by a clear vision for a high quality pedestrian environment. As a result, street lighting too often consists of tall, widely spaced light standards that are out of scale with the pedestrian environment, and produce a uniform, overly bright illumination that drains the public realm of visual interest and drama. Typical of this type of lighting is the ubiquitous "cobra head" style light standard. At 28 feet – 6 inches in height, these light standards indiscriminately illuminate the public realm, typically with more emphasis on lighting the street than the sidewalk.

Ideally, street lighting needs to meet multiple objectives. In addition to ensuring that public safety and security criteria are met, street lighting should be designed to create a comfortable and attractive pedestrian environment. To this end, street lighting should be scaled to the pedestrian, with light fixtures that are more closely spaced and mounted closer to the sidewalk. Such lighting contributes to a human-scaled spatial definition of the streetscape, separating pedestrians from street traffic and providing for increased security and visibility. Pedestrian-scaled lighting can act both as a functional deterrent to unwanted activity and also as a stimulus to extend the active hours of street use. The design of light fixtures and the quality of the illumination add visual interest to the streetscape and contribute to the overall character of the street.

Guidelines

1. Light Standards/Poles and Fixtures

A. **Unified Design Identity.** A single consistent style and size of pole and fixture should be used within a given district or street to create a unifying scheme of illumination that is appropriate to the scale of the street and the level and character of nighttime activity. Pole and fixture design



Pedestrian-scaled lighting on retail streets enhances and encourages nighttime street life.

should be coordinated with other street furniture and amenities to establish an attractive and unified design character.

- B. **Armature for Banners and Other Features.** Light poles should include armature that allows for the hanging of banners or other amenities (e.g., hanging flower baskets, artwork, etc.)
- C. **Height of Light Fixtures.** The height of light fixtures generally should be kept low to promote a pedestrian scale to the public realm and to minimize light spill to adjoining properties. In active and more intimately scaled pedestrian zones pole-mounted fixtures should not exceed twelve (12) to fifteen (15) feet in height from grade to light source. On larger streets, at major intersections, a mounting height of up to eighteen (18) feet may be acceptable.
- D. **Spacing.** Generally, shorter light standards should be more closely spaced to provide appropriate levels of illumination. Although in lower activity areas where lower lighting levels are acceptable, closer spacing may not be necessary.

5. Street Lighting

(continued)

E. Location in the Amenity Zone. Light standards should be located in the amenity zone of the sidewalk (i.e., area closest to curb) and should not interfere with pedestrian circulation.

2. Levels, Direction, and Quality of Illumination

A. Limit Light Pollution. Illumination generally should be focused down toward the ground, avoiding all unnecessary lighting of the night sky. In addition to standard street light poles, light sources that are mounted closer to and focus illumination directly onto the ground plane, such as bollard-mounted lighting, stair lighting, and wall- and bench-mounted down-lighting, are desirable. Light fixtures should include internal reflector caps, refractors, or shields that provide an efficient and focused distribution of light and avoid glare or reflection into upper stories of adjacent buildings.

B. Levels of Activity and Illumination. Levels of illumination should be responsive to the type and level of anticipated activity, without over-illuminating the area (i.e., bright, uniform lighting of all public right-of-ways is not desirable). The level of illumination for pedestrian areas generally should range from 0.5 foot candles in lower activity areas up to 2.0 foot candles in more critical areas (A foot candle is a unit of illumination, measured at the distance of one foot from the source of light.)

C. Illumination of Pedestrian Realm. Street lighting should focus on illuminating the pedestrian zone (e.g., sidewalks, paseos, plazas, alleys, etc.), rather than the vehicular zone (i.e., the street).

D. Illumination of Conflict Areas. Higher lighting levels should be provided in areas where there is potential for conflict between pedestrians and vehicles, such as intersections and crosswalks, changes of grade, and areas with high levels of nighttime activity. Thus, commercial shopping streets should have higher levels of illumination than side streets that are more residential in character and have lower levels of nighttime activity.

E. Color Balance. Color-balanced lamps that provide a warm white illumination and realistic color rendition are recommended.

F. Energy Efficiency. In order to conserve energy and reduce long-term costs, energy-efficient, Energy Star-certified lamps should be used for all public realm lighting, and hours of operation should be monitored and limited to avoid waste.

Implementation Recommendations

1. Review the Department of Public Works Standard and Special Neighborhood Streetlight System Design Specifications for consistency with these design guidelines.
2. Develop a street lighting master plan that identifies a coordinated system of street lights for the Central City area that is tailored to street function and neighborhood character; identifies specific standards and fixtures by street type; and identifies a phased implementation plan. (VTA 4-23)
3. The City should explore ways to provide more energy-efficient lighting of the public realm, including use of more energy efficient lamps, using LED fixtures for traffic signals, using solar powered fixtures, lowering the foot candle standard required for illumination of public spaces, reducing the hours of illumination, etc.



Light standards with banners add visual interest to the streetscape.

6. Public Art

PRINCIPLE: Public art shall be incorporated into the public realm to add visual interest for pedestrians and foster a distinct identity for individual districts and corridors.

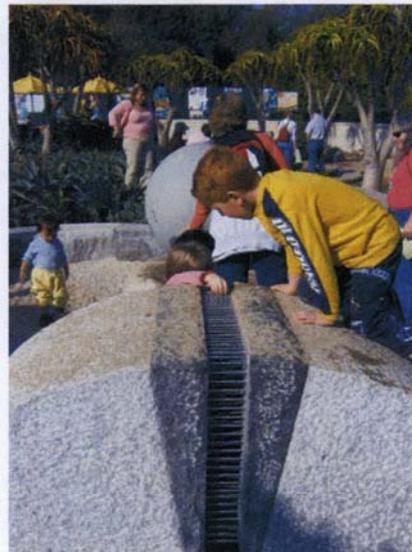
Background & Intent

Public art encourages pedestrian travel by adding visual interest to the public streetscape that enriches the pedestrian experience. Adding elements that visually and intellectually engage the community can be an effective means of encouraging pedestrian activity and fostering community identity. On a large scale, public art has the ability to enhance a district's identity, contribute to the creation of a new identity, or reinforce a design theme.

Consideration should be given to the integration of public art into all aspects of the public and private realm. However, given the competition for space in the pedestrian realm, it is important to move beyond the concept of public art as discrete elements such as statues or sculpture that occupy their own space. Instead, public art should be conceived of as something that is integral to the design of the many elements that occupy the public streetscape—making them more interesting, but not necessarily requiring more space. Thus, the design of all streetscape elements, including pavement treatments, street furniture, transit stops, light fixtures, etc., should consider the potential to incorporate public art.

Guidelines

1. Capital Improvements and Development Projects. All capital improvement and development projects, should explore the integration of public art into the design of public streetscape elements (e.g., paving, street furniture, transit shelters, lighting, etc.).
2. Location. Public art should be located where it can be enjoyed by a large number of people, including sidewalks, intersections, plazas, and medians.
3. Enhance Challenging Pedestrian Areas. Public art should be incorporated into difficult pedestrian transition zones, such as the connections over and under the rail lines to the Railyards and below the freeway to the River, to facilitate pedestrian use by enhancing and animating these spaces.



Public art should be engaging, either through physical movement or public interaction.

6. Public Art (continued)

4. **Interactive Art.** Interactive art is encouraged; examples include pieces that either invite user participation or provide sensory stimulation through touch, movement, or sound.
5. **Educative and Interpretive Art.** Public art should be used as a means of enhancing community understanding of Sacramento's history and unique cultural assets and appreciation for local artists.
6. **Permanent and Temporary.** Public art may consist of both permanent and temporary installations.
7. **Unified Design Identity.** The design and placement of public art should enhance and be coordinated with other streetscape improvements to ensure a coherent character for a given district or corridor.
8. **Driver Safety.** Placement of public art and monuments should not obstruct drivers' view of traffic control devices, be a distraction, or be located in a manner that could create a roadside hazard to motorists.

Implementation Recommendations

- A. The City should work with the Sacramento Regional Transit District (RT) to identify transit corridors and facilities that are uniquely suited to incorporate public art as an integral or special feature of the transit-way design.
- B. The City should explore innovative programs to take advantage of opportunities for community art projects. Some suggestions include developing a public mural program, organizing art events, and looking for possibilities to enhance unsightly elements in the streetscape such as San Diego's public utility box art program.
- C. The City should develop a banner program to add color and vibrancy to an urban streetscape. The banners may be used to advertise local cultural events or may be changed seasonally.



Tree grates with artistic flourishes add visual interest to the streetscape.

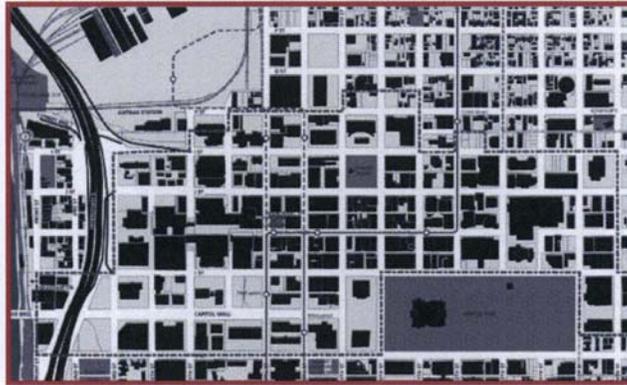


Sculptural elements can double as seating.



Water fountains provide relief during Sacramento summers

Chapter 4: Private Realm



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A. Introduction

The Sacramento Downtown Urban Design Plan & Guidelines provide policy guidance to the Design Commission, Sacramento Housing and Redevelopment Commission, Planning Commission, and the City Council. Used in concert with the City of Sacramento Zoning and Preservation Ordinance and applicable building codes, this document will provide City staff and private interests a common basis for the evaluation of design and development issues during the design review and approval process.

These guidelines are to be used to give direction rather than prescriptive requirements. The Design Commission shall have the authority to waive individual guidelines for specific projects where it is found that such waiver will better achieve the design policy objectives than strict application of the guidelines.

The Urban Design Guidelines are a component of the Sacramento Central Business District Urban Design Plan. The design guidelines prescribed in this document apply to the entire Central Business District (C-3) zone and the transition zones to the north, south and east; however, the location of the project and compliance with the Urban Design Guidelines and Zoning Ordinance requirements determines whether the development is administered under the "Fast Track" process or "Standard" review procedure.

1. Urban Design Policies

The intent of the Design Guidelines is to insure that all development in the Central Business District and surrounding areas contribute to making the center city a unique and special place. The guidelines that form the criteria for private realm / architectural review are based on the following policies:

A. Context

Allow for creative architectural solutions that acknowledge contextual design issues.

B. Character

Complement the architectural character of existing historic building enclaves and promote harmony in the visual relationships and transitions between new and older buildings.

C. Scale

Relate the bulk of new buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction.

D. Pedestrian

Enhance the pedestrian experience.

E. Materials

Promote efforts to utilize high quality building materials, detailing & landscaping.

F. Integrated Services

Promote functional & aesthetic integration of building services, vehicular access and parking facilities.

G. Sustainable Design

Promote sustainability in building design, construction and operation

2. Private Realm Design Guidelines

The following design guidelines in this chapter, Private Realm, pertain to:

- I. Building Types
- II. Site Planning
- III. Massing & Building Configuration
- IV. Sustainability at the Building Scale
- V. Parking & Vehicle Access
- VI. Historic Buildings & Neighborhoods

B. Introduction to Building Types

Background

An understanding of building types is essential for all parties who are involved with developing, designing, reviewing and approving projects which are located in urban and transitional areas. Understanding building types allows for the informed assessment of a project's ability to provide sensible commercial, retail, residential, recreational and parking configurations on a given site, relative to its urban and economic context.

Sacramento's central city has developed with a few key building types. Historically, the city began with mixed-use, low-rise and masonry buildings, and quickly expanded to include detached single family buildings. As the city flourished in the early 20th century, mid-rise masonry buildings (with iron/steel skeletons) rose in what is now the CBD area. Following the insertion of the interstate highway system, highrise office and apartment buildings grew, with the latest group of office towers, from the last 20 years, giving Sacramento its skyline today.

High land values in the center city force redevelopment projects to carefully weigh the construction costs and returns of each building type. Redevelopment in the center city has recently focused on a few key building types: low, mid and high rise residential buildings, and low and high-rise commercial buildings.

This chapter discusses building types, including general urban design guideline recommendations for each type.

Building types in Sacramento



The evolution of building types in Sacramento: From (top) low-rise, mixed-use timber and masonry buildings and detached single family buildings, to (middle) to mid-rise masonry buildings (with iron/steel skeletons), to (bottom) mid- and high-rise office and apartment towers.

1. Residential

a. Low-Rise

PRINCIPLE: Low-rise residential development shall be included as a viable strategy for infill housing in established residential and transition zones.

Background & Intent

This covers single family detached houses, semi-detached houses (duplexes), rowhouses and townhouses, and multifamily buildings. This category generally ranges from 1-1/2 story buildings to 5-story buildings, up to 50', and is typically built in Type V construction. The following guidelines are meant to serve as a brief introduction to the recommended parameters for this category.

Guidelines

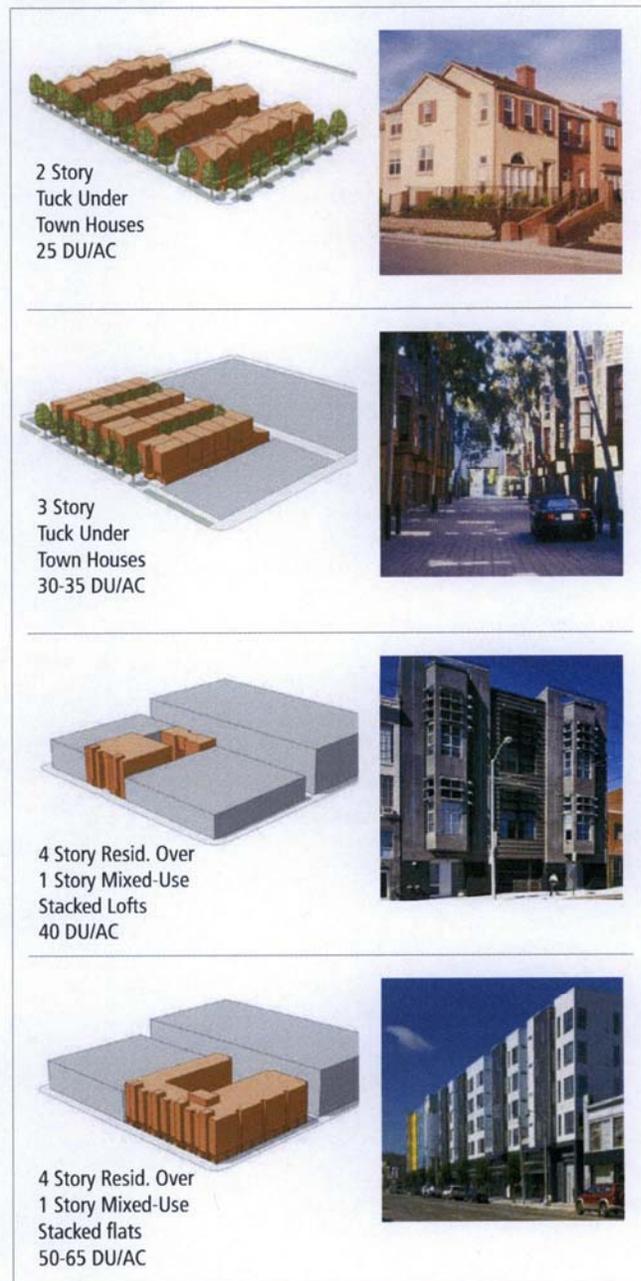
1. Site planning

- A. Location: As allowed by Height Limits Plan, p.2-37
- B. Build-to Lines, Setbacks: 5'-15'. Should be consistent with adjacent buildings. 0' setback in D2 and D3, and along R Street
- C. Lot Coverage (above parking): 60% max.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: 75 sf per DU in D1; otherwise 36 sf per DU
 - ii. Common Open Space: 75 sf per DU in D1; otherwise 48 sf per DU
- E. Public Open Space: Coordinate with City Parks Department for Requirements
- F. Landscaping: Required in front setback. Paved front yards are not permitted.
- G. Trash storage area must be on site.
- H. Parking access: Alley preferred or side street.

2. Massing & Building Configuration

- A. Height Limits, to plate line: Generally 35' for single family houses, 55' for all other low-rise development.
- B. Massing and bulk controls: Massing should generally be similar in scale to existing adjacent buildings. See also Chapter 4, Section D2.

Low-Rise Residential Massing Diagrams



Low-rise residential building types can be used to achieve urban-level densities, less expensive construction costs associated with Type V building, and massing that is compatible with single-family neighborhoods and historic districts.

1. Residential

a. Low-Rise (cont.)

- C. Facades:
- i. Ground level uses: Should be residential or mixed.
 - ii. Transparency: Any nonresidential ground floor use should have walls 75% transparent, but never less than 60% transparent.
 - iii. Articulation of street-wall: Articulations should be spaced no further than 26' o.c. A lot up to 40' wide should have at least 2 articulations.
 - iv. Lighting: Nighttime lighting should be limited and discreet, with light-levels similar to adjacent properties.
 - v. Facades facing the street should clearly present a front face of the building, not its side.
 - vi. Entries: Entry locations should be obvious, easy to find, clearly visible facing the sidewalk, and safe. Non-corridor/elevator buildings should have individual entries for each unit. Recessed entries are discouraged.
- D. Fenestration & Windows: See Chapter 4, Section D3.d.
- E. Roofs and mechanical penthouse enclosures: Mechanical equipment located at roof level should be integrated into the building design, e.g. as a screened volume.
- ### 3. Parking
- A. Ratios: The number of parking spaces provided shall not exceed the minimum allowable by code by more than 10%.
- B. Location: Parking shall not be located on the front 1/4 of the lot (unless the lot has only alley frontage). Lots with access via a vehicular alley should locate access to all parking and garages off the alley. Where there's no alley access, parking should be at the back for the lot, accessed by a max. 10' wide drive. Lots narrower than 40' may have a street-facing garage as a set back, subsidiary part of the house massing.
- C. Vehicle Access: Facing street: One 10' curb cut per lot. If lot is 80' wide or greater, two 10' curb cuts permissible. Access/Curb lots should come from numbered or side streets, unless demonstrated to be impossible.
- D. Double-wide garage doors are discouraged.
- E. Screening of Parking: Parking should not be exposed to view from the street. Structured parking should be wrapped with liner uses. If site conditions prohibit wrapped parking, the parking structure shall be designed with articulation and fenestration patterns consistent with the overall project. See Chapter 4, Section E1.
- ### 4. Sustainability
- Development should meet the criteria listed below for each project type:
- A. Single-family houses: LEED for Homes certification, or an Ecohomes Very Good rating
- B. Multifamily: Enterprise Green Communities criteria, or according to the Green Multi-family Design Guidelines by the California Integrated Waste Management Board, or LEED certification
- ### 5. Historic Neighborhoods
- New residential buildings in Historic Districts should be designed in a manner consistent with the dominant characteristics of the surrounding Historic District. This requires an extensive amount of field research, architectural literacy, and coordination with Preservation staff. While mimicry is not promoted, an exact copy may be preferable to a bad interpretation.

1. Residential

b. Mid-Rise

PRINCIPLE: Mid-rise residential development shall provide both effective densities and local service amenities in their ground floor mixed-use areas, including family support uses.

Background & Intent

This covers projects which range from 50-100' in height, and are primarily residential, though they should have a mixed-use component on the lower levels. Mid-rise residential buildings typically include stacked flats, stacked lofts, and various combinations of the two. This category generally ranges from 6-story buildings to 8-story buildings, where the top floor is no more than 75' above finished sidewalk level, and is typically built in Type I or II construction. The following guidelines are meant to serve as a brief introduction to the recommended parameters for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Height Limits Plan, p.2-37
- B. Setbacks:
 - i. Front: 0'-6'
 - ii. Side: zero setback allowed
 - iii. Back: 6' from alley at garage entry/exit; otherwise zero setback allowed
- C. Lot Coverage (above parking): 75% max.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: 75 sf per DU in D1; otherwise 36 sf per DU
 - ii. Common Open Space: 75 sf per DU in D1; otherwise 48 sf per DU
- E. Public Open Space: Coordinate with City Parks Department for Requirements
- F. Landscaping: Required in all setback areas.

2. Massing & Building Configuration

- A. Height Limits to plate line: Generally 75' to top of highest occupied floor; 100' max overall. See illustrations on next page
- B. Bulk controls: See Chapter 4, Section D2.
- C. Facades:

Mid-Rise Residential Massing Diagrams



Mid-rise residential building types can be used to achieve higher density levels than low-rise, but require more expensive Type I, II, or III construction, and are therefore targeted to middle-higher income occupants.

- i. Ground level uses: Should be residential or mixed.
 - ii. Transparency: Any nonresidential ground floor use (except parking and servicing) should have walls at least 60% transparent.
 - iii. Articulation of street-wall: Articulations should be spaced no further than 20' o.c.
 - iv. Lighting: Should be appropriate to the ground floor uses, and respectful of adjacent property uses.
 - v. Entries: Entry locations should be obvious, easy to find, clearly visible from the sidewalk, and safe. Double height entries encouraged. Recessed entries are discouraged.
- D. Fenestration & Windows: See Chapter 4, Section D3.d.
 - E. Roofs and mechanical penthouse enclosures: Mechanical equipment located at roof level should be integrated into the building design, e.g. as a screened volume.

1. Residential

b. Mid-Rise (cont.)

3. Parking

- A. Ratios: The number of parking spaces provided shall not exceed the minimum allowable by code by more than 10%.
- B. Location: Parking shall not be located on the front 1/4 of the lot. Lots with alley access should locate access to all parking and garages off the alley.
- C. Vehicle Access: Facing street: One 10' curb cut per lot. If lot is 80' wide or greater, two 10' curb cuts permissible. Access/Curb cuts should come from numbered or side streets, unless demonstrated to be impossible.
- D. Double-wide garage doors are discouraged.
- E. Screening of Parking: Parking should not be exposed to view from the street. Structured parking should be wrapped with liner uses. If site conditions prohibit wrapped parking, the parking structure shall be designed with articulation and fenestration patterns consistent with the overall project. See Chapter 4, Section E1.

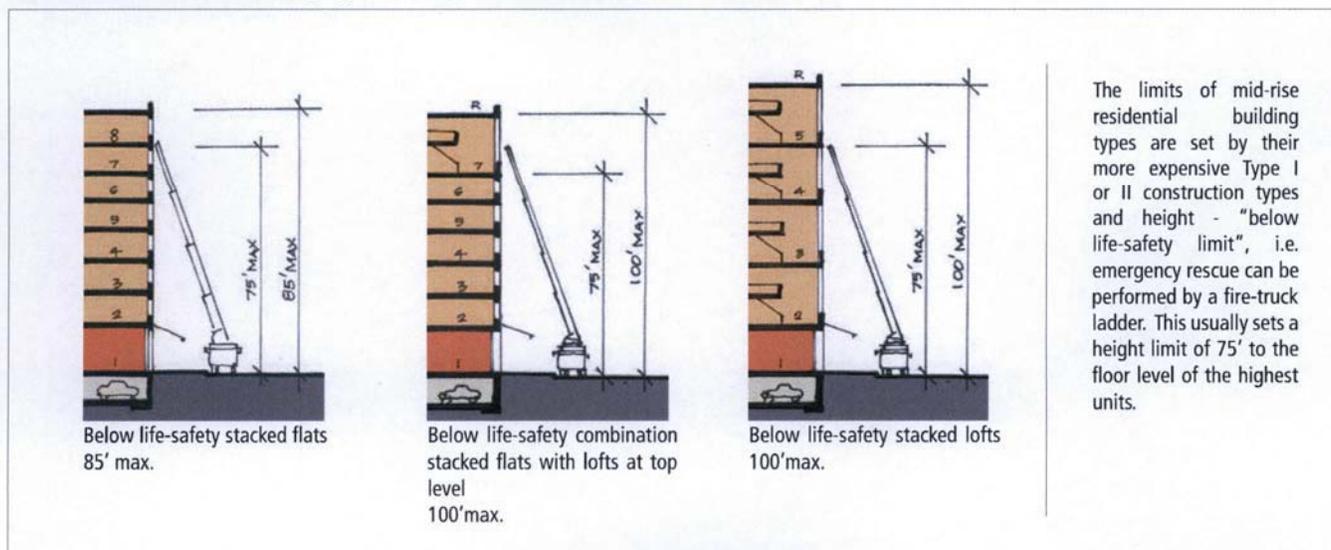
4. Sustainability

Development should achieve LEED Silver certification.

5. Historic Neighborhoods

- A. New mid-rise buildings in Historic Districts should be designed in a manner consistent with the dominant characteristics of the surrounding Historic District. This requires an extensive amount of field research, architectural literacy, and coordination with Preservation staff. While mimicry is not promoted, an exact copy may be preferable to a bad interpretation.
- B. Well-designed mid-rise buildings can be complementary to the character of an historic neighborhood, although they may be significantly taller than many or most of their surroundings. Many historic neighborhoods in the city have historic buildings which exceed 100', yet still clearly contribute to the character of the district. Height alone should not be cause for refusal of a project, but rather design quality. The City of Sacramento's Historic Preservation director should be consulted on an acceptable solution for this building type in an historic district.

Mid-Rise Residential Building Types & Height Limits



1. Residential

c. High-Rise

PRINCIPLE: High-rise residential development shall be a desirable strategy to achieve high densities with minimal land consumption, best utilizing investments in public transit, open space & services, including family supportive uses.

Background & Intent

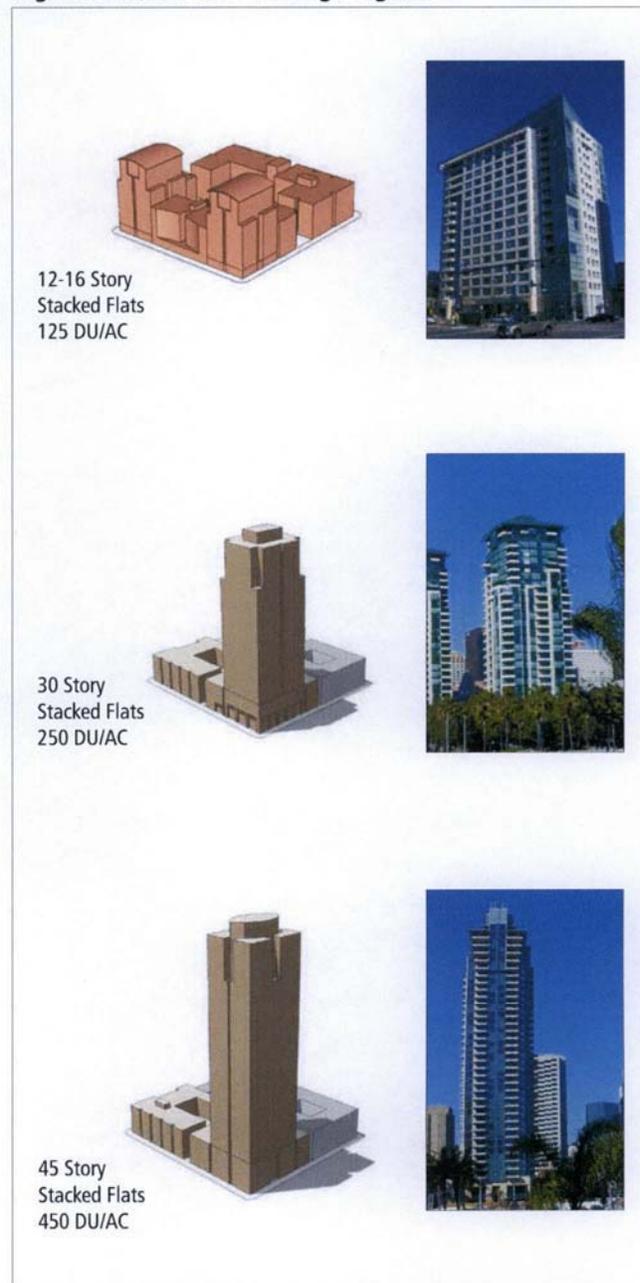
This covers projects which are in excess of 8 stories, typically over 100' high. High-rise residential towers will often have several floors of non-residential uses on the lower levels, included structured parking. They may also be combined with other lower-rise building types as part of the development. This category requires Type I construction, in steel or concrete frame. The following guidelines are meant to serve as a brief introduction to the recommended parameters for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Height Limits Plan, p.2-37
- B. Setbacks:
 - I. For building base:
 - a. Front: 0'
 - b. Side: 0'
 - c. Back: 6' from alley at garage entry/exit; otherwise zero setback allowed
 - II. For tower component:
 - a. Front: zero setback allowed
 - b. Side: zero setback allowed, as long as min. 30' between adjacent tower sides
 - c. Back: 30' between adjacent tower sides; otherwise 6' from alley
- C. Lot Coverage (above parking): 75% max.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: 36 sf per DU
 - ii. Common Open Space: 48 sf per DU
- E. Public Open Space: Coordinate with City Parks Department for Requirements
- C. Public Open Space: As per Quimby guidelines
- D. Landscaping: Required in all open spaces.

High-Rise Residential Massing Diagrams



High-rise residential building types can be used to achieve very high density levels, and require Type I construction, which typically results in units tailored exclusively to higher income occupants.

1. Residential

c. High-Rise (cont.)

2. Massing & Building Configuration

- A. Height Limits: As allowed by Height Limits Plan, p.2-37
- B. Bulk controls: above the street-wall height of 60', bulk controls apply, related to tower heights as follows (refer also to Chapter 4, Section D.2 - Bulk Controls for massing diagrams):

I. Up to 240' height

- » Maximum average tower floor plate: 7,500 sq ft
- » Maximum plan dimension: 90'
- » Maximum diagonal dimension: 120'

II. Up to 300' height

- » Maximum average tower floor plate: 8,500 sq ft
- » Maximum plan dimension: 100'
- » Maximum diagonal dimension: 125'

III. Up to 350' height

- » Maximum average tower floor plate: 9,000 sq ft
- » Maximum plan dimension: 115'
- » Maximum diagonal dimension: 145'

IV. Up to +/-550' height

- » Maximum average tower floor plate: 10,000 sq ft
- » Maximum plan dimension: 115'
- » Maximum diagonal dimension: 145'

V. All Residential / Residential Mixed-Use High Rise towers:

- » 10% bulk reduction required for the top 20% of the tower height, measured from grade.

C. Facades:

- i. Ground level uses: Should be residential or mixed.
- ii. Transparency: Any nonresidential ground floor use (except parking and servicing) should have walls at least 60% transparent.
- iii. Articulation of street-wall: Articulations should be spaced no further than 40' o.c.
- iv. Lighting: Should be appropriate to the ground floor uses, and respectful of adjacent property uses.
- v. Entries: Entry locations should be obvious, easy to find, clearly visible from the sidewalk, and safe. Main entry should be scaled relative to amount of users. Double/triple height entries encouraged in CBD.

D. Fenestration & Windows: See Chapter 4, Section D3.d.

E. Roofs and mechanical penthouse enclosures: Mechanical equipment located at roof level should be integrated into the building design, e.g. as a screened volume.

3. Parking

- A. Ratios: The number of parking spaces provided shall not exceed the minimum allowable by code by more than 10%.
- B. Location: Parking should not be located on the front 1/4 of the lot. Lots with alley access should locate access to all parking and garages off the alley.
- C. Screening of Parking: Parking should not be exposed to view from the street. Structured parking should be wrapped with liner uses. If site conditions prohibit wrapped parking, the parking structure shall be designed with articulation and fenestration patterns consistent with the overall project. See Chapter 4, Section E1.
- D. Vehicle Access: Facing street: One 20' curb cut per lot, other than alley access.

4. Sustainability

Development should achieve LEED Silver certification.

5. Historic Neighborhoods

- A. Most of downtown Sacramento is within 3 blocks of an historic district, and thus any new high-rise introduced will necessarily be in the vicinity of an historic district. New high-rise buildings in Historic Districts should thus be mindful not to produce overbearing shadow areas, especially onto single-family residential areas.
- B. If well-designed, high-rise buildings can be complimentary to, and enhance the character of, historic districts, although may be significantly taller than many or most of the surroundings. Many historic neighborhoods in the city have historic high-rise buildings which exceed 100', which are often some of the city's best buildings, in the case of 926 J Street and the Elks Club. Height alone should not be cause for refusal of a project, but rather design quality. The City of Sacramento's Historic Preservation director should be consulted on an acceptable solution for this building type in an historic district.

2. Commercial

a. Low-Rise

PRINCIPLE: Low-rise commercial development shall be included as a viable strategy that contributes to the sustainability of neighborhoods, providing employment centers and daytime activity.

Background & Intent

This section covers low-rise commercial buildings, to a maximum height of 65'. These building type ranges from custom green building projects to speculative office space. These are typically single use buildings, although some other uses may find ground floor space if the building is located in a busy district. To meet the high parking requirements - currently 1 parking spaces per 400-600 s.f. of space, parking is usually either located in a structured facility behind the office building, or beneath the building footprint. This category requires Type I construction, in steel or concrete frame. The following guidelines are meant to serve as a brief introduction to the recommended parameters for this category.

Guidelines

1. Site planning

A. Location: As allowed by Height Limits Plan, p.2-37

B. Setbacks:

I. D1 (residential):

- a. Front: 5'-15'
- b. Side: 5'-15'
- c. Back: 10'

II. D2 (mixed) & D3 (CBD):

- a. Front: 0'-10'
- b. Side: zero setback allowed
- c. Back: zero setback allowed

C. Lot Coverage: 75% max.

D. Open Space: May be Private / Common or Public. Should be included as a figurally shaped open space, visible from street (see Figure 1).

E. Public Open Space: Not required.

F. Landscaping: Required in all open spaces.

2. Massing & Building Configuration

A. Height Limits: as allowed by Heights Plan, up to 65'

Low-Rise Commercial Massing Diagrams

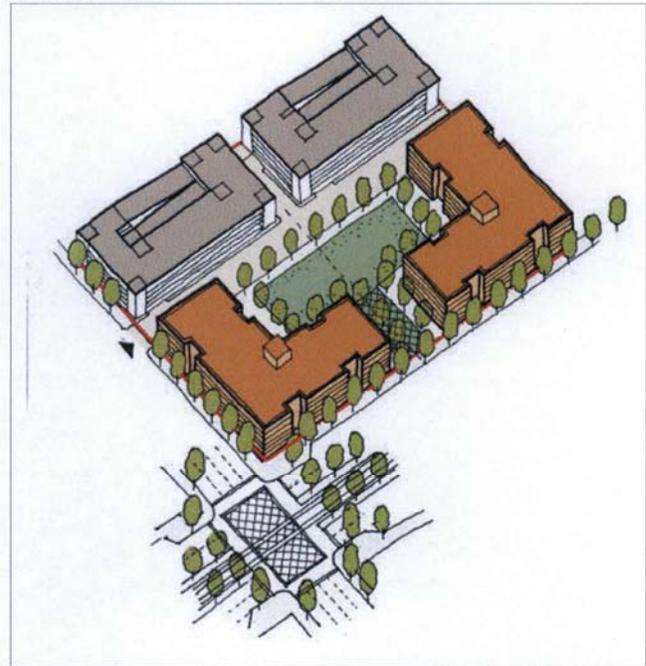


Figure 1. Low-Rise commercial buildings should be placed along the Build-to line, with little setback required. Their massing should form figurally open spaces. High parking ratios require structured parking, often almost equivalent in gross square feet to the office space that it serves



Figure 2. The CalPERS building, completed in 2006, is a group of 6-story office buildings arranged around an open, landscaped plaza.

2. Commercial

a. Low-Rise (cont.)

- B. Bulk controls: See Chapter 4, Section D2.
 - C. Facades:
 - i. Ground level uses: Any retail uses within the building should open to the street, rather than to an internal atrium.
 - ii. Transparency: At least 40% transparent.
 - iii. Articulation of street-wall: Articulations should be spaced no further than 40' o.c.
 - iv. Lighting: Should be appropriate to the ground floor uses, and respectful of adjacent property uses. Paths to/from parking should be well-lit.
 - v. Entries: Entry locations should be obvious, easy to find, clearly visible from the sidewalk, and safe. Double height entries encouraged. Main entry should be scaled relative to amount of users.
 - D. Fenestration & Windows: See Chapter 4, Section D3.d.
 - E. Roofs and mechanical penthouse enclosures: Mechanical equipment located at roof level should be integrated into the building design, e.g. as a screened volume.
- 3. Parking**
- A. Ratios: The number of parking spaces provided shall not exceed the minimum allowable by code by more than 10%.
 - B. Location: Parking should not be located at or above grade level on the front 1/4 of the lot. Lots with alley access should locate access to all parking and garages off the alley.
 - C. Screening of Parking: Parking should not be exposed to view from the street. Structured parking should be wrapped with liner uses. If site conditions prohibit wrapped parking, the parking structure shall be designed with articulation and fenestration patterns consistent with the overall project. See Chapter 4, Section E1.
 - D. Vehicle Access: Facing street: One 20' curb cut per lot, other than alley access. Access curb cuts shall come from numbered or side streets, unless demonstrated to be impossible.
- 4. Sustainability**
- Development should achieve LEED Silver certification.
- Historic Buildings and Neighborhoods**
- A. Most of Sacramento's central city is within 3 blocks of an historic district, and thus any new high-rise introduced will necessarily be in the vicinity of an historic district. New high-rise buildings in Historic Districts should thus be mindful not to produce overbearing shadow areas, especially onto single-family residential areas.
 - B. If well-designed, new low-rise commercial office buildings can be complimentary to, and enhance the character of, historic districts, although they may be may be taller than many of the surroundings. Height alone should not be cause for refusal of a project, but rather design quality. The City of Sacramento's Historic Preservation director should be consulted on an acceptable design solution for this building type in an historic district.

2. Commercial

b. High-Rise

PRINCIPLE: High-rise commercial development shall be provided as a preferred strategy in dense employment centers, and shall contribute to a strong pedestrian environment and a distinctive metropolitan skyline.

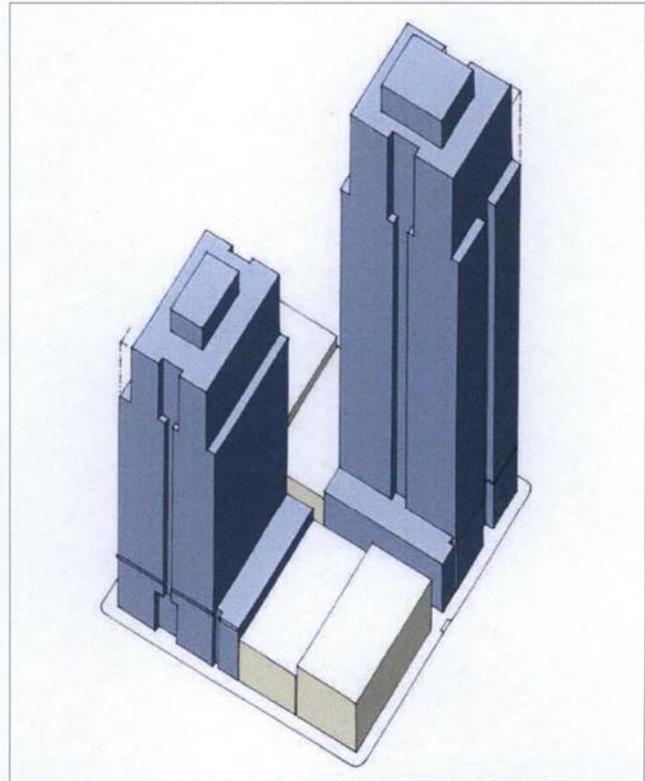
Background & Intent

This covers projects which are in excess of 8 stories, typically 250'-500' high or taller. High rise commercial office towers may often have a limited number of lower floors of non-offices, such as ground floor retail and structured parking. They may also be combined with other lower-rise building types as part of the development. This category requires Type I construction, in steel or concrete frame. The following guidelines are meant to serve as a brief introduction to the recommended parameters for this category.

Guidelines

1. Site planning

- A. Location: D2 or D3
- B. Setbacks:
 - I. For building base (up to 85'):
 - a. Front: 0'
 - b. Side: zero setback allowed
 - c. Back: zero setback allowed
 - II. For tower component (above 85'):
 - a. Front: zero setback allowed
 - b. Side: zero setback allowed; 5' min. if windows in wall
 - c. Back: 30' between adjacent tower sides; otherwise 6' from alley
 - d. 80' min. setback between towers
- C. Lot Coverage (above parking): 75% max.
- D. Open Space: Not required.
- E. Public Open Space: Not required.
- F. Landscaping: Required in all open spaces.



These diagrams illustrate the building volume used by a commercial office building in Sacramento. The left and right towers each start as a 1/4 block (25,600 sf) parcel; and completely fill the site to the base height of 60'. From there, each steps back to a maximum 20,000 sf floorplate, which rises until the top 20% of the building, where a 10% bulk reduction is required.



Urban commercial office buildings generally require larger floor plates. A well-articulated form can produce a more elegant and graceful solution for the Sacramento skyline.

2. Commercial

b. High-Rise (cont.)

2. Massing & Building Configuration

- A. Height Limits: As allowed by Height Limits Plan, p.2-37
- B. Bulk controls: See Chapter 4, Section D2. Generally, above the street-wall height of 60', bulk controls apply, related to tower heights as follows:
 - I. Mid-rise (Up to 85' / Life-safety limit height)
 - a. No bulk reduction required (see Facade Articulation)
 - b. No setback from street required
 - I. Above 85' height
 - a. Maximum average tower floor plate: 20,000 sq ft
 - b. Maximum plan dimension: 160'
 - c. Maximum diagonal dimension: 200'
 - d. 10% bulk reduction required for the top 20% of the tower height, measured from grade.
 - e. No setback from street required
- C. Facades:
 - I. Ground level uses: Shall be retail or other active commercial uses.
 - II. Transparency: Any active ground floor use shall have walls at least 60% transparent, with 75% preferred.
 - III. Articulation of street-wall: Articulations should be spaced no further than 40' o.c.
 - IV. Lighting: Should be appropriate to the ground floor uses, and respectful of adjacent property uses. Feature elements of the facade/massing should be lit, including the top.
 - V. Entries: Entry locations should be obvious, easy to find, clearly visible from the sidewalk, and safe. Main entry should be scaled relative to the overall mass that it is set within, its location in the city, and the amount of users. Entries lobbies of 30'-50' or more are encouraged.
- D. Fenestration & Windows: See Chapter 4, Section D3.d.
- E. Roofs and mechanical penthouse enclosures: Mechanical equipment located at roof level should be integrated into the building design.

3. Parking

- A. Ratios: The number of parking spaces provided should not exceed the minimum allowable by code by more than 10%.
- B. Location: Parking should not be located on the front 40' of the lot. Lots with alley access should locate access to all parking and garages off the alley.
- C. Screening of Parking: Parking should not be exposed to view from the street. Structured parking should be wrapped with liner uses. If site conditions prohibit wrapped parking, the parking structure shall be designed with articulation and fenestration patterns consistent with the overall project. See Chapter 4, Section E1.
- D. Vehicle Access: Facing street: One 20' curb cut per 25,000 gsf of parcel area, other than alley access.

4. Sustainability

Development should achieve LEED Silver certification.

5. Historic Buildings and Neighborhoods

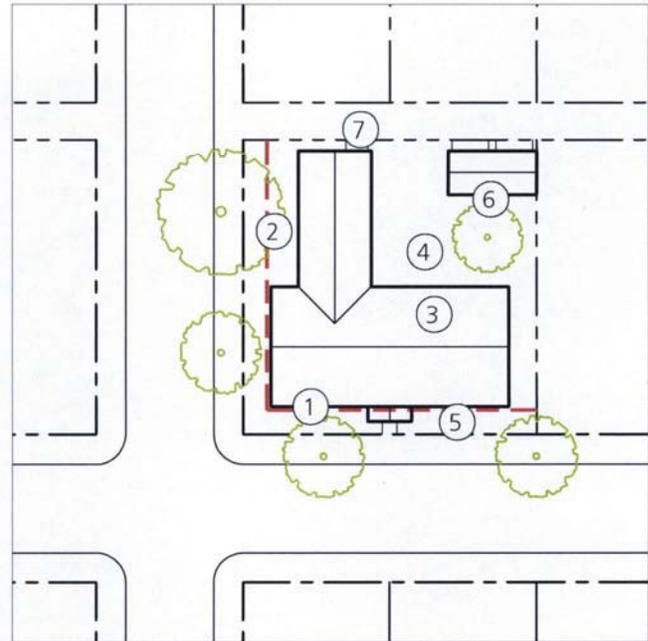
Most of downtown Sacramento is within 3 blocks of an historic district, and thus any new high-rise introduced will necessarily be in the vicinity of an historic district. New high-rise buildings in Historic Districts should thus be mindful not to produce overbearing shadow areas, especially onto single-family residential areas.

C. Site Planning

The Site Planning Guidelines are intended to give guidance to the way that a parcel should be laid out, from the point of view of the forces that determine where the building massing best occurs, and how the remaining parcel is treated. This would include physical, regulatory and programmatic elements, like existing trees, required setbacks, and parking demand respectively, as well as forces from outside the site, like traffic volumes on adjacent roads and existing trees in the public right-of-way.

Categories of guidelines, which are keyed in at the diagram at right, include:

1. Build-to-Lines & Setbacks
2. Tree Setbacks
3. Lot Coverage
4. Open Space
5. Landscaping
6. Project Size & Building Type
7. Service Areas & Access



1. Build-to-Lines & Setbacks

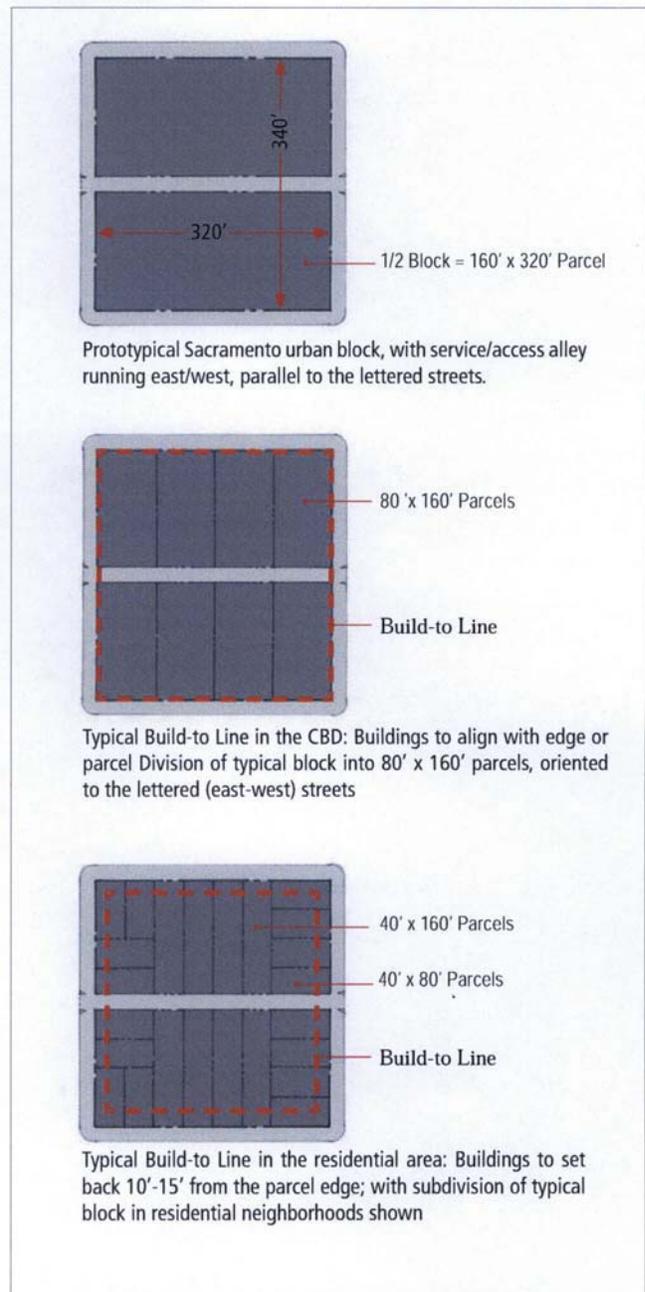
PRINCIPLE: New buildings shall have a setback appropriate to the district, typically similar to its immediately adjacent existing buildings.

Background & Intent

In order to create a coherent public realm throughout the city, the edge of the private realm should be established with consistently aligned building frontages. The amount of setback should be appropriate for the district. For example, building would have little or no setback in the CBD, where the highest level of public activity occurs. In more residential areas, a wider setback is appropriate, where a landscaped zone between the building and the back edge of the sidewalk is desirable. Build-to-Lines are established to ensure that the setback is not a minimum setback, but rather a specific required distance. The massing of the building must be to a "Built-to-Line", hold the consistent line of the street-wall, or a setback by a certain distance from the public right-of-way. In order to retain design flexibility, the amount of a building's façade that must align with the build-to line must meet a given percentage. The Build-to-Line can be required for 100% of the building frontage in certain Downtown locations, or a minimum percentage in other locations, where a public plaza, for example might be a desirable feature.

Required setbacks can permit the tree canopy of the existing mature street trees to remain unobstructed. (See Chapter 4, Section C2)

Block Pattern Diagrams



Diagrams illustrating the prototypical placement of Build-to Lines, in both in the CBD (center) and in more residential areas (bottom).

1. Build-to-Lines & Setbacks (cont.)

Guidelines

1. Setbacks

Buildings shall be placed on the site to align with Build-to-Lines (within +/- 2'), as follows:

A. D1 (Residential)

Buildings should be setback generally 10'-15'; or be consistent with existing buildings. Minimum 60% of building frontage to be along Build-to-Line.

B. D2 (Commercial / CBD)

Buildings should have zero setback; or be consistent with existing buildings. Minimum 95% of building frontage to be along Build-to-Line.

C. D3 (Retail/Transit Corridors)

Buildings setback should be 0'-10', or consistent with existing adjacent buildings. Minimum 70% of building frontage to be along Build-to-Line.

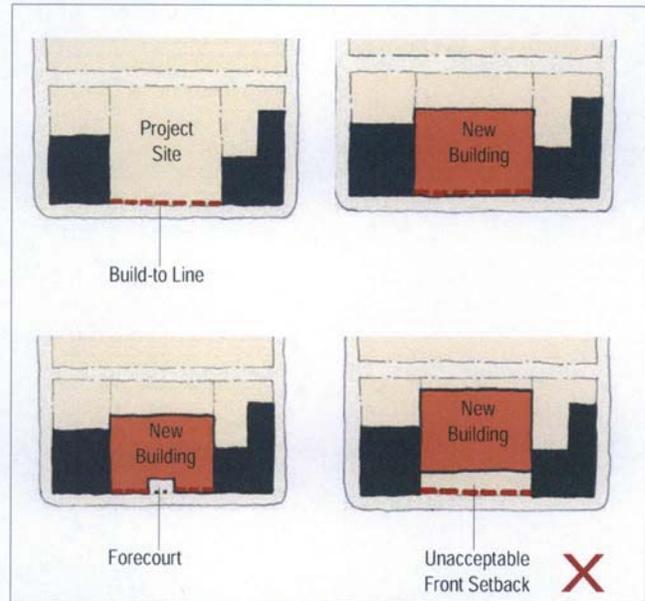
2. Open Space Provision

Setbacks above to be followed, except when providing public and semi-public spaces, e.g. plazas, entry courts, sidewalk cafes, tree protection setbacks, etc.

Implementation Recommendations

- none

Build-to Line Examples



Diagrams illustrating the placement of a building in relation to the Build-to Line.

Setback Examples



0' Setback
Stacked loft apartment building, San Francisco



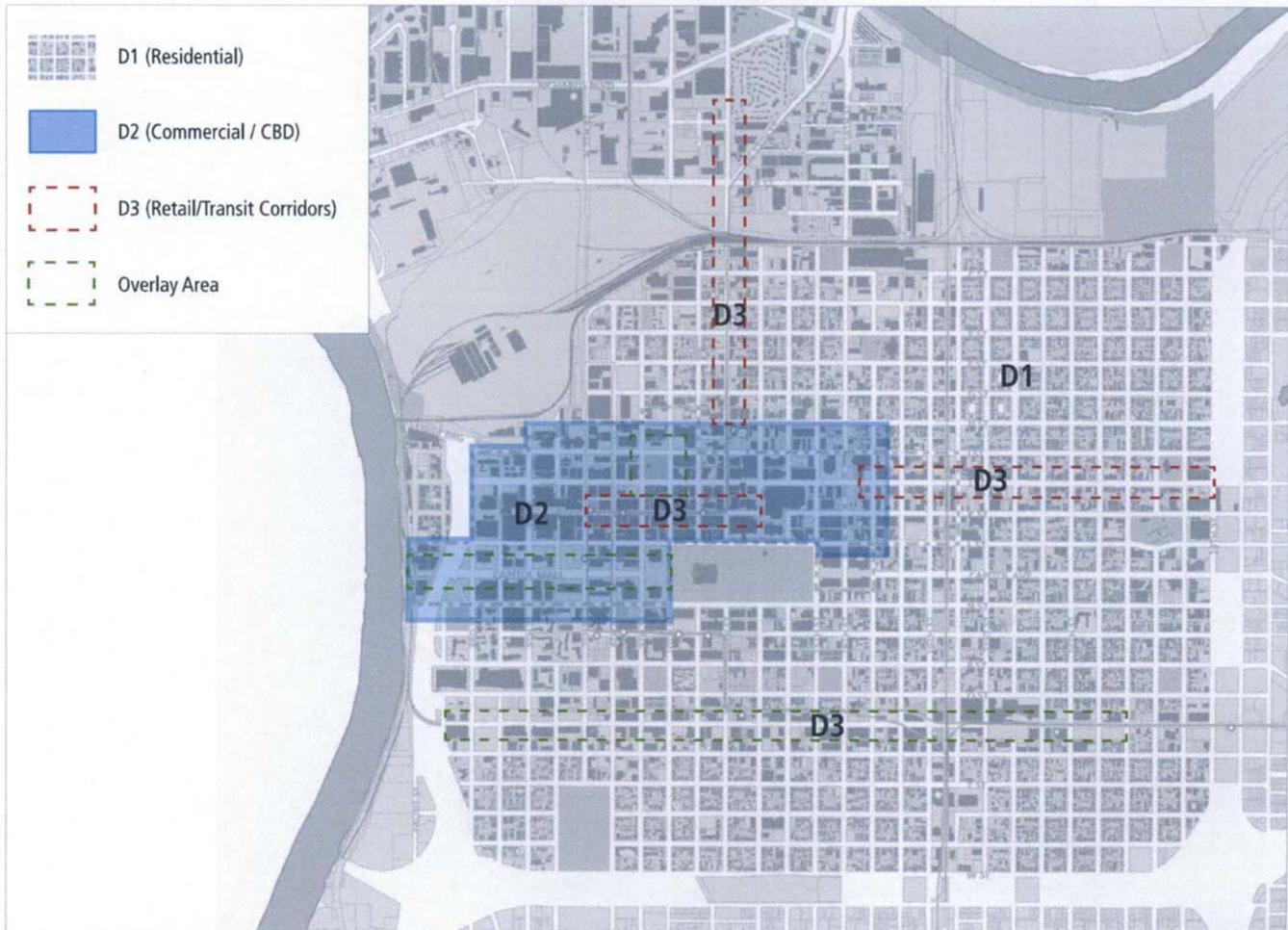
3' Setback
Multifamily residential development, Oakland



12' Setback
Duplex residential development, Oakland

2. Build-to-Lines & Setbacks

a. Setback Districts



Background & Intent

The setback districts plan coordinates the appropriate setback of a building type related to its location in the city. The edge of the private realm is thus established with consistently aligned building frontages.

The amount of setback should be appropriate for the district. For example, buildings would have little or no setback in the CBD, where the highest level of public activity occurs. In more residential areas, a wider setback is appropriate, where a landscaped zone between the building and the back edge of the sidewalk is desirable.

Each building type (Section B) is listed with setbacks appropriate for each of the districts on this map.

Setback Districts Guidelines

Buildings shall be placed on the site to align with Build-to-Lines (within +/- 2'), as follows:

1. D1 (Residential)

Buildings should be setback generally 10'-15'; or be consistent with existing buildings. Minimum 60% of building frontage to be along Build-to-Line.

2. D2 (Commercial / CBD)

Buildings should have zero setback; or be consistent with existing buildings. Minimum 95% of building frontage to be along Build-to Line.

3. D3 (Retail/Transit Corridors)

Buildings setback should be 0'-10', or consistent with existing adjacent buildings. Minimum 70% of building frontage to be along Build-to Line.

2. Tree Setbacks

PRINCIPLE: New buildings shall set back and/or step back appropriately in relation to existing mature trees.

Background & Intent

Sacramento is the City of trees, a capitol renowned for its streets shaded by mature street canopies. The city's urban forest is a priceless amenity for the public realm, but can often cause a conflict in the area of private realm development. The Street Tree Planting Guide, issued by the City of Sacramento's Urban Forest Services Division, contains Developer Guidelines for City Street Trees. Private realm development must balance the Street Tree Guidance with the Urban Design Guidelines and building codes, which are not all in harmony as a group of documents.

The aim of this guideline is to give clear guidance to all parties regarding development strategies related to all kinds of trees - existing and planned, young and mature.

Guidelines

The root area of a tree is usually understood to be approximately equal to its leaf canopy. As such, new development should not disturb this area. Effort must be made to minimize the impact to existing trees, including their canopies & root systems, and to keep the surface area above roots systems permeable.

1. Public Realm Street Trees

- A. New buildings should not be placed under the canopy of existing or planned public realm street trees; nor should any underground excavation occur under the canopy, except:
 - I. Single-story exterior porches
 - II. Fencing/walls lining a property's boundary, and their requisite foundations
- B. Consult the Street Tree Planting Guide to determine the average canopy spread of young trees adjacent to the parcel to be developed, and set back accordingly.
- C. Refer to the Public Realm Guidelines for guidance on new development which includes new public realm street trees.



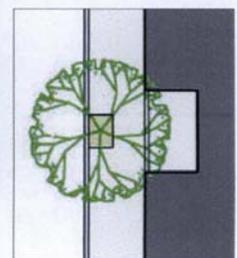
Streets shaded by mature tree canopies are an iconic image of Sacramento. Private development should be designed in relation to this urban community asset.



Tree-lined streets in the Alkali Flats neighborhood, showing the E and F Street blocks from 12th to 16th Streets. While the residential areas of the city typically are liens with mature tree canopies, many areas of the CBD are more urban, with different, usually smaller, types of trees.



The east entry of the Cal/EPA Headquarters Building was setback around the canopy of an existing street tree. As a result, the tree provides strategic shade to a highly trafficked user route. (plan view below)



2. Tree Setbacks (cont.)

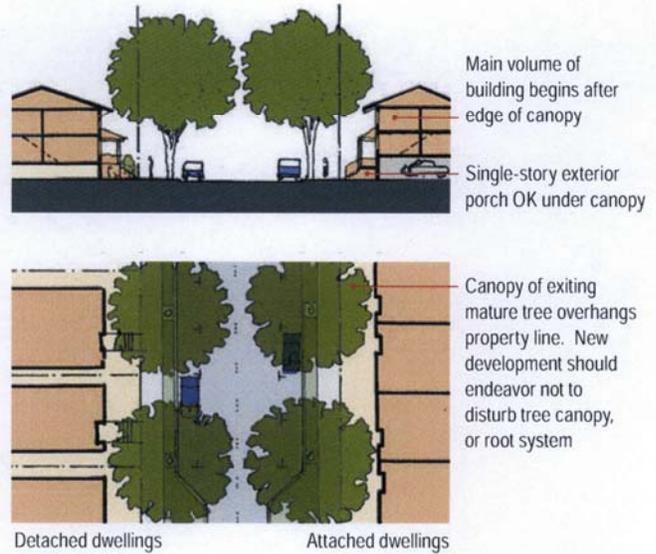
2. Private realm trees

While trees are undoubtedly a public amenity, they can also be a liability for some home-owners, due to their maintenance requirements and potential for causing storm-related damage.

- A. New buildings should be appropriately placed in relation to existing private realm street trees.
- B. New development should endeavor to save and/or relocate, within the parcel, all existing trees that are deemed to be of good health.

Implementation Recommendations

- Develop street master plan for Central City



3. Lot Coverage

PRINCIPLE: Lot coverage shall be used to control the scale and massing of a building by limiting the amount of lot coverage and ensuring that a given parcel, and its adjacent parcels, have suitable access to light and air.

Background & Intent

A building which completely fills up its lot, and repeats that floorplate to maximum height, allows no air or light access to its occupants, and can seem overbearing to its neighbors. Limiting the amount of lot coverage can remedy this problem.

For residential buildings, this defines the amount of a lot that can be occupied by the residential portion of a proposed building. This element is often combined with requirements to address holding the street-wall and helps define both the street frontage as well as allowing air and light into the interior of the lot. Typically lot coverage may be maximized on ground floor, where retail, common, and garage spaces are likely to occur, and reduced at the first single-use (residential or commercial) floors above. The required open space may serve as an occupiable terrace or courtyard, and allow natural light and ventilation deep within a building.

Guidelines

1. Lot Coverage may not exceed 75% on upper levels with only residential or commercial uses, i.e. the area of the building footprint of the upper levels may not exceed 75% of the overall lot area. The lower levels (no more than 25% of the total number of floor levels) may have coverage up to 100%. (See Figure 1)
2. Where the principal outlook for a living room is oriented to the open space, e.g. a light court, it should have a width (W) to height (H) ratio of at least 1:1, i.e. W greater than or equal to H. (See Figure 2)

Implementation Recommendations

- Review, and revise as appropriate, Chapter 17.60 (Height & Area Regulations) of the City's Zoning Code to allow for lot coverage as recommended in the Guideline 1 above.

Lot Coverage Diagrams

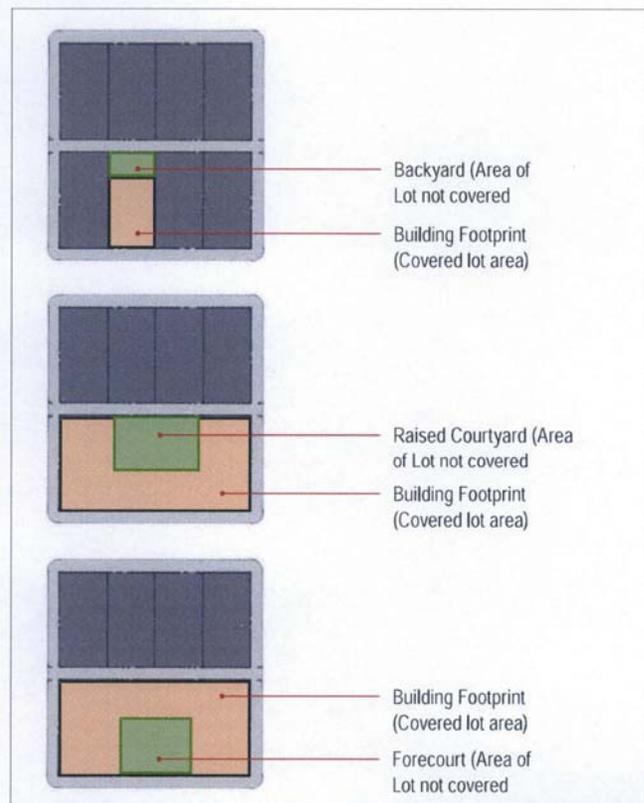


Figure 1. These site diagrams illustrate building footprint options which do not exceed 75% of the parcel area. The remaining open area on the parcel can be designed as a private, semi-public, or public open space.

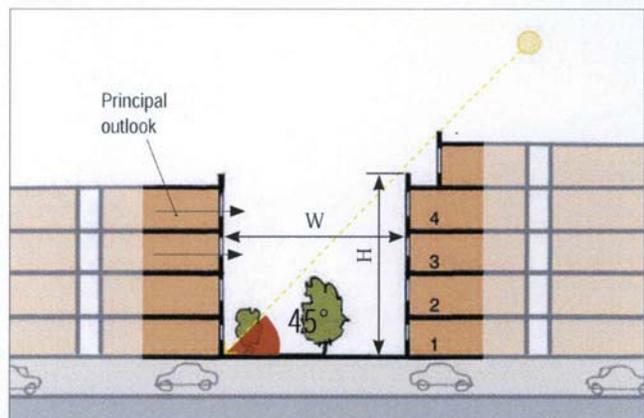


Figure 2. Open space separation between residential buildings.

4. Open Space

PRINCIPLE: Open space is an essential and shall be provided on-site for new developments, in a range of public, common and private open space types.

Background & Intent

This covers the amount of public, common and/or private open space required per dwelling unit of residential development.

Open space which is well-designed, local and accessible is a key component of any livable city, and a public benefit signaling the quality of downtown. Apart from the centrally located Capitol Mall, the City of Sacramento's central area has an open space deficit. New development should provide a range of open space types for its users and visitors, on-site.

Guidelines

Public, Common and Private Open Space should be provided as follows:

1. Public open space

- A. Must be open to the street or public right-of-way and accessible to the average citizen.
- B. This element should be provided either as a dedicated courtyard or plaza.
- C. Public open space should include hard and soft landscaping, areas for sun and shade, benches and water features, where appropriate.
- D. It must be accessible and meet ADA requirements.

2. Common/Private Open Space

Belongs to the residents and is either in the form of a secure garden or roof-deck above the base of the building, or in the form of private balconies attached to each unit.

3. Open Space Quantities

Open space amounts should comply with City of Sacramento Parks Department's Quimby requirements.

Implementation Recommendations

- None

Open Space Types



Public open space - forecourt in front of Park Plaza Tower, Sacramento.



Common / shared open space- a courtyard, Portland, OR.



Private open space- balconies outside apartments, Sacramento.

4. Open Space

a. Pocket Parks

PRINCIPLE: Small Pocket Parks shall be provided throughout the central city, supplementing the main civic-scaled park system.

Background & Intent

The Sutter Plan called for a large park surrounding the Capitol, and a grid of full-block parks at regular intervals. However, the provision of additional park space at the neighborhood level and scale can supplement these civic-scaled open spaces. Pocket parks provide needed open space for surrounding residences, offices, and commercial buildings, especially when larger land parcels are not available, as is the case in most of the center city.

They should be easily accessed by the surrounding neighborhood, so as to become a community meeting place and neighborhood focus at a very local level. Their central location facilitates the good casual surveillance typical of local, community-vested amenities.

Pocket parks, also called vest-pocket parks, are typically very small. Their smaller size generally limits their use to casual and passive recreation (no ball-games), dog walking, etc. Their layout usually includes seating areas and sometimes children's play areas, often combining hardscaped and landscaped spaces with features like water fountains or raised stage areas.

Although there is no minimum size, an example would be a pocket park that fits on a single 40' x 80' lot. Pocket parks in many urban centers, like Paley Park (Figure 2) in New York City - at just 1/10 of an acre - can provide valued respite from the city despite being small in size.

Pocket parks can contribute to local stormwater management strategies, serving as a storage area for run-off, with swales that may connect to larger systems.

Pocket parks may be public, private, or any form of partnership. They are often created on abandoned inner-neighborhood parcels. Many neighborhood groups provide the labor for implementation (Figure 3) and maintenance, while in some cases the City may want to perform this role.

Examples illustrated here (Figures 3-6) include projects from Keep Indianapolis Beautiful Inc., a 30-year-old program aiming "to unite people to beautify the city, improve the environment, and foster pride in the community."

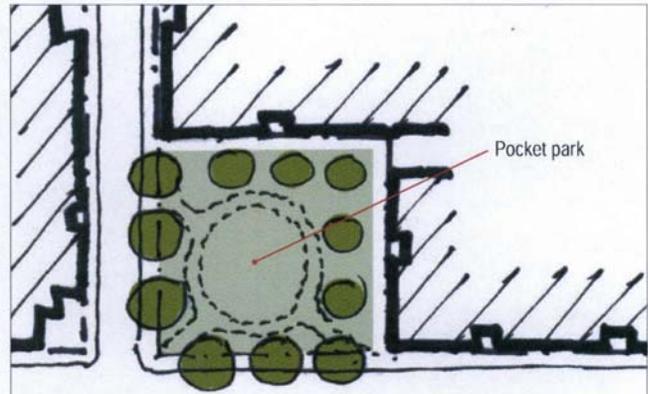


Figure 1. Pocket parks should be accessible from the public sidewalk.



Figure 2. Paley Park in New York City is a small, cobblestone urban room of just 4,200 sf.



Figure 3. Neighborhood volunteers work to implement the Paige Booker pocket park in Indianapolis, IN.

4. Open Space

a. Pocket Parks (cont.)

Guidelines

1. Design all new pocket parks around a "purpose". Developers should identify an appropriate purpose for each of their proposed parks, preferably by meeting with the neighborhood &/or community to determine the most appropriate purpose of the future park, before it is designed. Categories of purposes could include Education; Socializing; Exercise; and Relaxation.
2. Plan pocket parks to be accessible to the highest possible amount of users. They should be accessible from a public sidewalk.
3. Their layout should include seating areas and central design features. The design should combine hard and soft landscape.
4. There is no minimum size for a pocket park.
5. Allow pocket parks to contribute to local stormwater management strategies.

Implementation Recommendations

- Create a program that facilitates the planning, design, implementation and maintenance of pocket parks



Figure 4. Pocket park at 1300 West Roche Street, Indianapolis, IN



Figure 5. Moon Block Park, Rural & Tenth Streets, Indianapolis, IN



Figure 6. Blur Triangle pocket park, Indianapolis, IN



Figure 7. Panoramic view of the mini-park at 24th street in the Potrero Hill neighborhood of San Francisco

5. Landscaping

PRINCIPLE: On-site open space shall be landscaped to make the space comfortable, attractive, and complimentary with the surrounding architecture.

Background & Intent

The quality of an open space on a parcel is only as good as its design and landscaping. Landscaping has a significant impact on the experience, texture, and temperature of an open space. The landscaping component needs to be included and implemented as part of any new development. Landscaping needs to be appropriate to the intended use of the space.

Guidelines

1. Landscaping should be used to activate building facades, soften building contours, highlight important architectural features, screen less attractive elements, add color, texture, and visual interest, and provide shade.
2. Landscape materials should be of high quality and suitable for the central valley climate. Given the general lack of precipitation, naturalized and low-water use plant species are preferred.
3. The creation of semi-public outdoor spaces such as on-site plazas, patios, courtyards, paseos, terraces and gardens that support pedestrian activity and community interaction is strongly encouraged, particularly in larger projects.
4. To promote user comfort, plazas and courtyards should be well-defined by buildings and landscaping, comfortably scaled, landscaped for shade and ornament, furnished with areas for sitting, and lighted for evening use.
5. Planting and finishes should be selected appropriate to the type and volume of use. Durability of the landscaping is a key component how the space will be used and maintained long after implementation.

Implementation Recommendations

- none

Landscaping



Planting helps screen fire hydrants



Appropriately scaled planting defines mid-block pedestrian alley

6. Project Size & Building Type

PRINCIPLE: The areas of downtown with the highest density shall be developed with a rich mix of parcel sizes, land uses, massing and architectural variety.

Background & Intent

While minimum lot sizes are a standard feature of many cities, including the residential districts of Sacramento, consideration should be given to establishing a maximum project size as well. The enormous development footprint of Westfield Mall, along with its elimination of city streets, represents a mistake in urban design and planning, which should not be repeated. At the same time, projects that approach the size of an entire block can often be repetitive and monotonous, inserting a potentially homogenous land use and design into the city.

It is desirable to encourage a rich mix of both land uses and architectural variety in the city. Policies should be established to avoid this mix of uses being destroyed by each block only having a single use, building type, or design. This can be achieved by limiting the maximum size of a development, or requiring that it include a variety of building types, heights and uses. Ideally a development that is more than one-half block in size would employ two or more separate architects to design the various buildings. This latter situation has been achieved in some of the Little Italy blocks in San Diego and the proposed four city block development of Laguna Hill on the site of the former UC Berkeley extension in San Francisco.

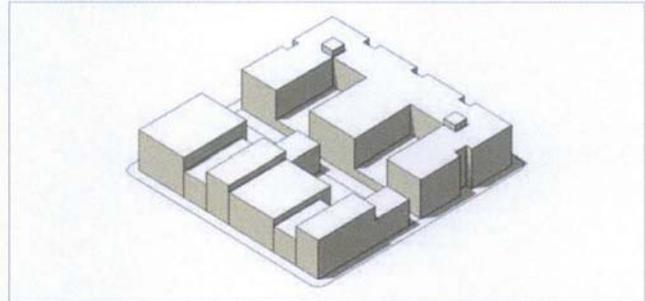
Guidelines

1. No project should propose the elimination of any city street or alley. If the elimination of a street or alley is proposed, the publicly-accessible right-of-way or easement should be kept in its place.
2. If a project is more than 2.5 acres, it shall be subdivided with an appropriate number of public streets.
3. Any development site greater than one quarter of a city block should include at least 2 building types, and roof heights which include at least a 15' variance across the project.

Implementation Recommendations

- none

A Variety of Parcel Sizes



This diagram shows two scenarios. To the left, buildings relating to the historic block parcelization. To the right, a single building mass which occupies numerous lots developed in aggregate.



Greenway between old and new City Hall.



Sacramento Docks Area. This planned development includes several building types in close proximity: stacked flats, liner town houses, high-rise residential towers, and commercial space.

7. Service Areas & Access

PRINCIPLE: To minimize the functional and visual impact of service and access areas, they shall be carefully designed, and located along the least-trafficked edges of the parcel.

Background & Intent

Service areas and vehicular access need to be optimally located so that they are both visible yet secondary to the building's key features, typically the main entrance or public areas.

Guidelines

1. Vehicle Access Location

If a project site has an alley adjacency, all vehicular access should be from the alley (primary access route). If there is no alley adjacency, access is preferred to come from the numbered streets (secondary access route). Only if there is no other alternative available should vehicular access be given from a lettered street (tertiary access route).

2. Curb Cuts: Maximum allowable curb cuts:

- A. Single-family residential: One curb cut, up to 10' wide
- B. Attached residential and multifamily residential (up to 20 units): One curb cut, up to 12' wide
- C. Multifamily residential (more than 20 units): One curb cut, up to 24' wide
- D. Commercial up to 75,000 gross floor area: One curb cut, up to 24' wide
- E. Commercial greater than 75,000 gross floor area: Two curb cuts, up to 24' wide each

3. Maximum parking garage opening

- A. single lane access: 12' wide
- B. double lane access: 24' wide

4. Trash & Trash Removal

- A. The trash pickup route should be located along alleys, where possible.
- B. Trash storage areas shall not be in the 20' public right-of-way of the alley, but rather be recessed into the private

Access



parcel. The trash area should be protected from rain, and secured behind a lockage door or gate.

- C. Retractable bollards on shared-use alleys and pedestrian alleys shall, limit trash pick-up times on those alleys to off-peak hours.

Implementation Recommendations

- none

D. Massing & Building Configuration

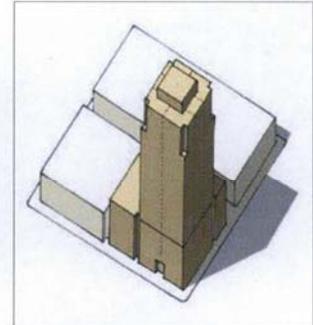
The Massing & Building Configuration Guidelines are intended to give guidance to the development of the buildings, and cover a range of topics from the height, massing and setbacks of the buildings to its articulation and materials. The goal of the guidelines is to establish a framework for dialogue between city departments, developers and their designers regarding appropriate architectural solutions for the central city.

Categories of guidelines include:

1. Street Wall & Building Base Height
2. Massing & Bulk Controls
3. Façades
4. Rooftops & Mechanical Penthouse Enclosures
5. Development along Alleys
6. Sustainability
7. Public/Private Art



Street Wall & Building Base Height



Massing & Bulk Controls



Façades



Rooftops & Mechanical Penthouse Enclosures



Development Along Alleys



Sustainability



Public / Private Art

1. Street Wall & Building Base Height

PRINCIPLE: The public space of the street shall be defined on both sides by buildings forming a street wall of a consistent height end defined articulation.

Background & Intent

The public space of the street is defined by the buildings and, in Sacramento's residential areas, by tree canopies. The CBD has a fairly consistent street wall, with a building base height established at approximately 60', matching the predominant height of most existing low-rise downtown buildings. This produces a street section with 3:4 proportions, given the typical 80' public street r.o.w (see Figure 2).

Above the building base height, bulk controls and mandated setbacks apply (see section D.1).

Guidelines

The building base height defining the street wall should be as follows, in the related districts:

1. D1 (Residential) n/a
2. D2 (Commercial / CBD)
 - A. Building base height should be +/- 60'-85' to cornice, above which bulk controls and mandated setbacks apply (see Figure 2)
 - B. Building base height should be +/- 60' along Capitol Mall, above which bulk controls and mandated setbacks apply; with base height and stepback heights in accordance with the Capitol View Protection Act (California Code, Section 8162.5 - 8162.9).
3. D3 (Retail/Transit Corridors)
 - A. Building base height should be +/- 60'-85', above which bulk controls and mandated setbacks apply
 - B. For buildings taller than the base height, the base height should be marked with a cornice articulation, or other legible design strategy. (See Figure 3)

Implementation Recommendations

- none

Building Base Height



Figure 1. Consistent building wall defining the space of the street, along J Street

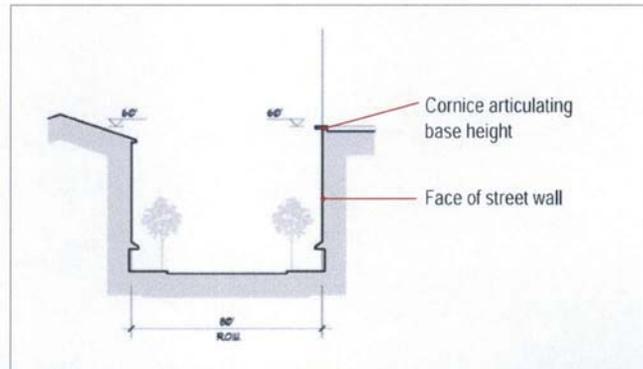


Figure 2. Street section with 3:4 proportions, with cornice articulation defining building base height.



Figure 3: Building base of 900 J ST. marked with protruding string course articulation.

2. Bulk Controls

PRINCIPLE: Bulk controls shall be implemented to foster a distinctive and metropolitan city skyline with buildings of varied shapes, sizes, and articulated tops.

Background / Intent

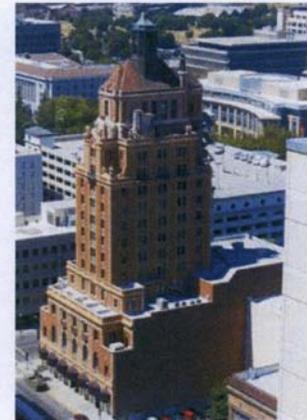
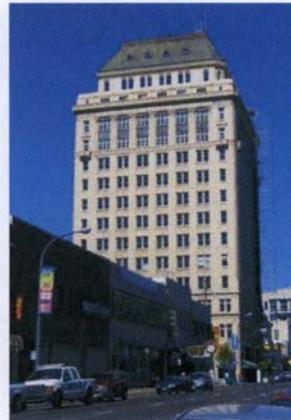
The Bulk Control and Stepback recommendations from the 1987 CBD Architectural Design Guidelines are primarily inspired by one of Sacramento’s signature buildings, the Elks Club. The stepback envelope, illustrated on this page, requires a 15’ stepback from the street-wall above 60’ up to 150’ and a further 5’ above that height. This is acceptable for commercial office buildings but less practical for high-rise residential buildings, where there is less flexibility in the manipulation of stacked program elements. (Residential buildings typically prefer a standard dimension from the core to the perimeter in order to stack like above like units.) One of the unfortunate drawbacks of the in-place stepback strategy is that it permits, and by default encourages, above-grade parking levels to occupy the levels up to the base height limit and expose the parking levels to the street-wall. This creates the undesirable condition where there are no windows or occupied spaces from ground level to where the occupied floors start, resulting in a dead street-wall as seen from the sidewalk. (This parking location issue is addressed in section E.)

It is appropriate to consider zero stepbacks for residential towers, as exists with the historic 926 J Street building - the other key source for the 1987 CBD Design Guidelines - and acknowledge the street-wall/base condition with a horizontal string course marking the division between base and shaft of a tall building, as in 926 J Street.

Bulk limits currently permit large floor-plates with a 220’ maximum diagonal for the building above 60’ height and a 200’ maximum diagonal above a 150’ height. This results in large 24,000 sq ft and 20,000 sq ft floor-plates respectively. These could be acceptable for office buildings, but are very large for residential towers.

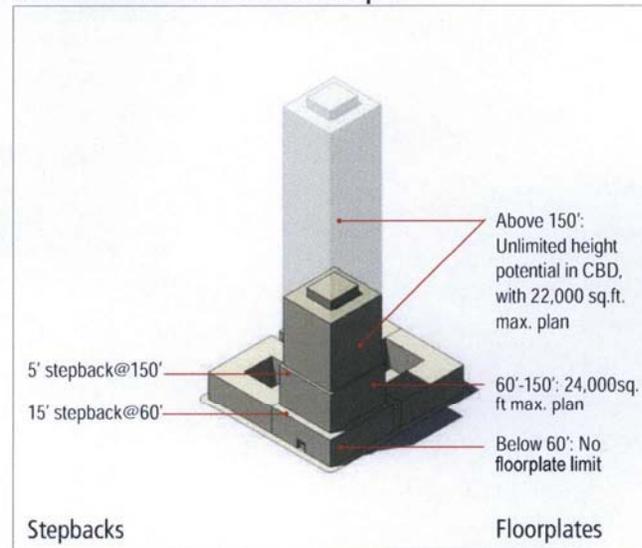
1. Tower Proportion

Tower proportion - the relationship of floor plate dimensions to height - is governed by building type and height. For a series of given height thresholds, a set of maximum floor-plate dimensions (plan and diagonal) are given and illustrated. This ensures the avoidance of stocky or bulky



The 1987 CBD Architectural Design Guidelines take inspiration from two of Sacramento’s signature buildings, the Elks Club and 926 J Street. The Bulk Control and Stepback recommendations are modeled on their massing strategies, with clear design distinctions of base, tower shaft, and top.

The Previous Bulk Control Envelope



The Bulk Control and Stepback recommendations envelope from the 1987 CBD Architectural Design Guidelines

2. Bulk Controls cont.

buildings that block views and cast overwhelming shadows on the streets and sidewalks. See Sections 2a and 2b for details.

2. Stepbacks

In principle, stepbacks - the process of stepping back a building's bulk a designated height thresholds - are not required from the street-wall.

3. Wind Tunnel Testing

Wind can have a significant impact on the design of taller buildings, including the structural design, cladding design, mechanical systems and occupant comfort, as well as creating an adverse wind environment in surrounding streets and public areas. To ensure that a development considers the impact of wind on the building as well as the impact of the building on generating a windy environment, wind tunnel testing should be part of the environmental review process for taller buildings.

Residential high-rises

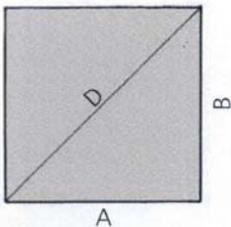


Recent residential high rises
Vancouver, Canada

A note on the Bulk Control Guidelines:

The massing envelope for each building type contains the following:

- a maximum average tower floor plate (A x B) in square feet (sq ft)
- a maximum plan dimension (B) in feet (ft)
- a maximum diagonal dimension (D) in feet (ft)



To provide maximum design flexibility, these are the extreme ends of each measure; they cannot all be reached and still be in accordance with the controls.

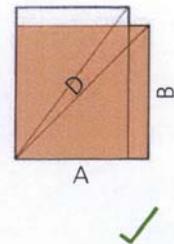
The following examples are based on the bulk controls for a high-rise commercial office building, which at 300' tall has the following criteria:

- Maximum average tower floor plate: 20,000 sq ft
- Maximum plan dimension: 160'
- Maximum diagonal dimension: 200'

Example Test Cases:

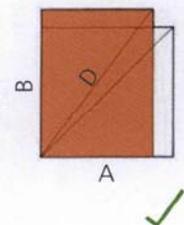
1. To achieve the max. floorplate, with minimum envelope:

Take the square root of max. floorplate area (20,000 sq ft) to get sides of 141'5" (A) x 141'5" (B). Verify diagonal (200') conforms.



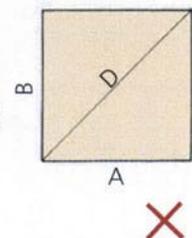
2. To achieve the longest possible building:

Set the max. plan dimension 160' (B) with the maximum diagonal of 200' (D) to get the resulting plan dimension of 120' (A) and floorplate area (19,200).



3. Using both extremes of floorplate (20,000 sf ft) and plan dimension (160'):

The resulting plan dimension (20,000 sq ft div. by 160' = 125') generates a diagonal which exceeds the maximum (203'), making this an unacceptable design.



2. Bulk Controls cont.

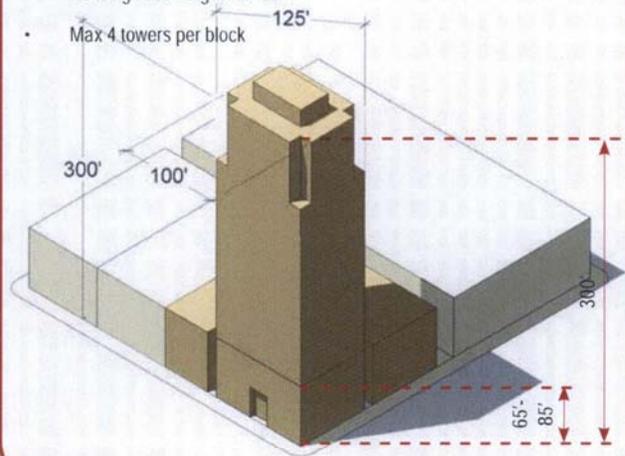
Bulk Control Comparisons: Case Studies

Several West Coast cities have strict bulk limits for residential towers in order to create tall slender buildings. Vancouver's towers typically have very small floor-plates varying from 3,500-6,500 sq ft maximum (see image, previous page). San Francisco's Rincon Hill design guidelines permit towers an array of floor plates related to height ranging from 7,500 sq ft for a 300' high tower to 10,000 sq ft for a 500' high tower. The current generation of Sacramento's downtown residential towers has a range of much larger floor-plates, generally in the 12,500 sq ft - 15,000 sq ft range.

The three examples on this page compare design parameters for a 300'-high residential tower.

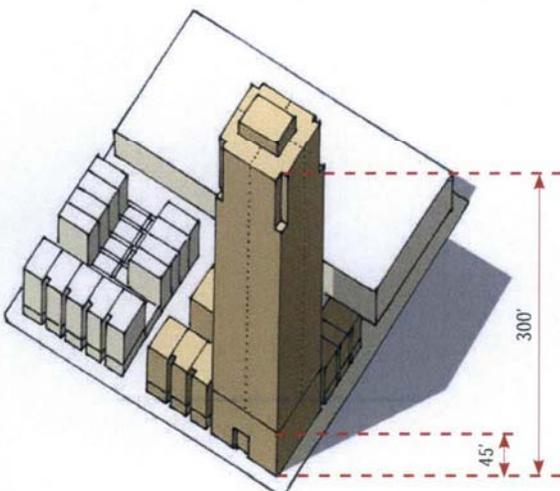
Sacramento bulk control

- Max. tower floor plate: 10,000 sq ft (typically 6-8 units per floor)
- Parking above grade
- Building base height: 65'-85'
- Max 4 towers per block



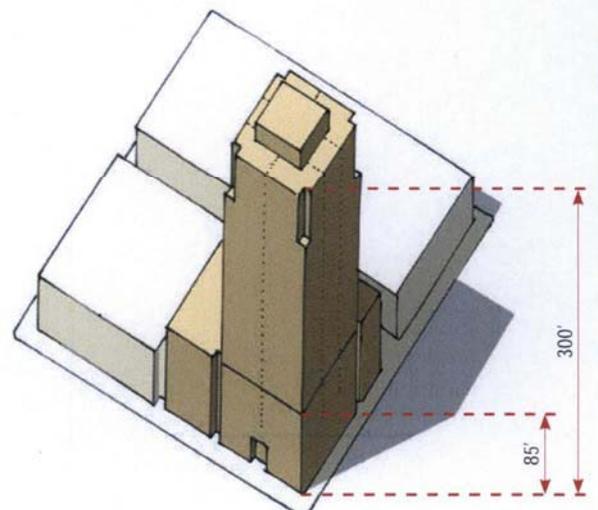
Vancouver bulk control

- Max. tower floor plate: 7,500 sq ft (typically 4 units per floor)
- Max base building height: 45 ft
- All parking below grade
- 4 story row houses fill remainder of site
- Max. 2 towers per block



Rincon Hill San Francisco bulk control

- Max. tower floor plate: 10,000 sq ft (typically 6-8 units per floor)
- Max. base building height: 85 ft
- Parking above grade
- Max. 2 towers per block



2. Bulk Controls cont.

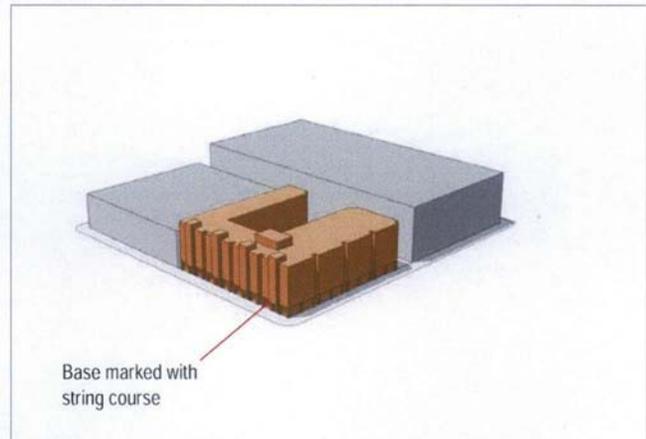
a. Residential and Residential/Mixed-Use Buildings

3. Residential Bulk Controls

The bulk of residential development varies by development type. The urban role of low-rise buildings is primarily to hold the street-wall, while high-rise buildings should be tall, slender, and well-proportioned. Their design should establish or continue the urban street-wall as well as contribute a significant form to the city skyline. Bulk controls thus govern both the setbacks proportions of a tower and the articulation of its top.

A. Up to 55'

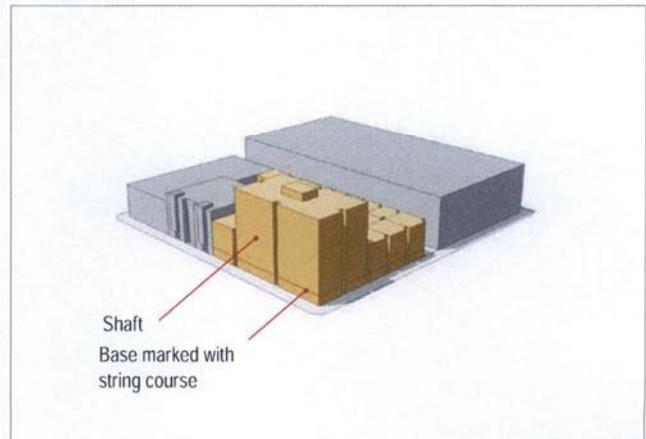
Up to a height of 55', (or the prevailing height of the majority of existing buildings on the block), 100% lot coverage is permitted. This allows for parking levels and ground floor retail. (See separate sections on both these items)



Up to 55'

B. Low-rise (Up to 65' height)

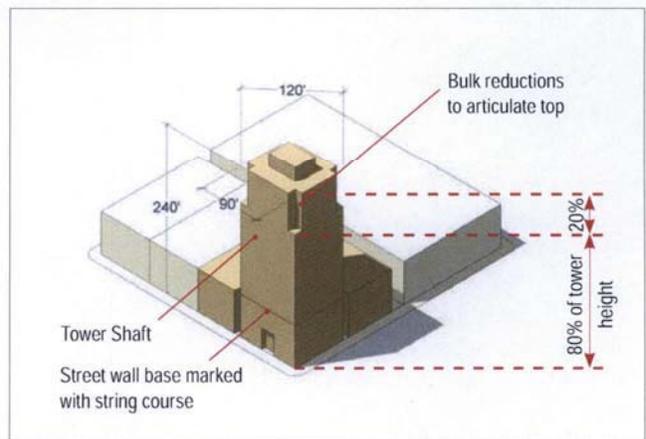
- I. No bulk reduction required
- II. No setback from street required



Up to 85'

C. Mid-rise (Up to 85' / Life-safety limit height)

- I. No bulk reduction required
- II. No setback from street required



Up to 240'

D. Up to 240' height

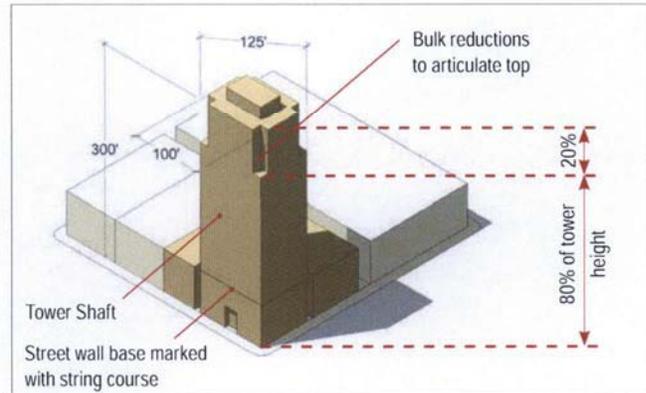
- I. Maximum average tower floor plate: 7,500 sq ft
- II. Maximum plan dimension: 90'
- III. Maximum diagonal dimension: 120'
- IV. 10% bulk reduction required for the top 20% of the tower height, measured from grade. (Bulk reductions need not be at corners, as pictured)
- V. No setback from street required

2. Bulk Controls cont.

a. Residential and Residential/Mixed-Use Buildings

E. Up to 300' height

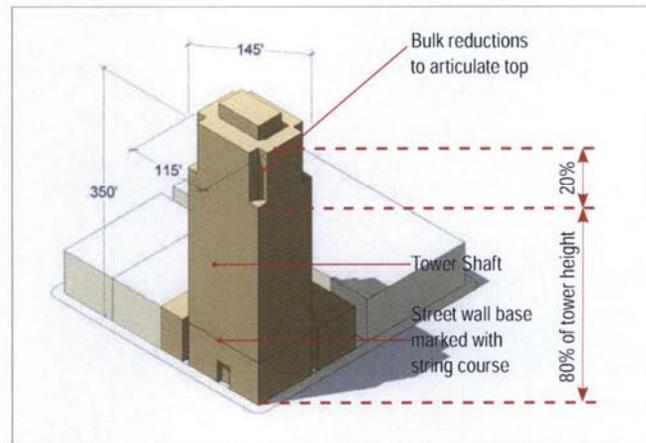
- I. Maximum average tower floor plate: 8,500 sq ft
- II. Maximum plan dimension: 100'
- III. Maximum diagonal dimension: 125'
- IV. 10% bulk reduction required for the top 20% of the tower height, measured from grade. (Bulk reductions need not be at corners, as pictured)
- V. No stepback from street required



Up to 300'

F. Up to 350' height

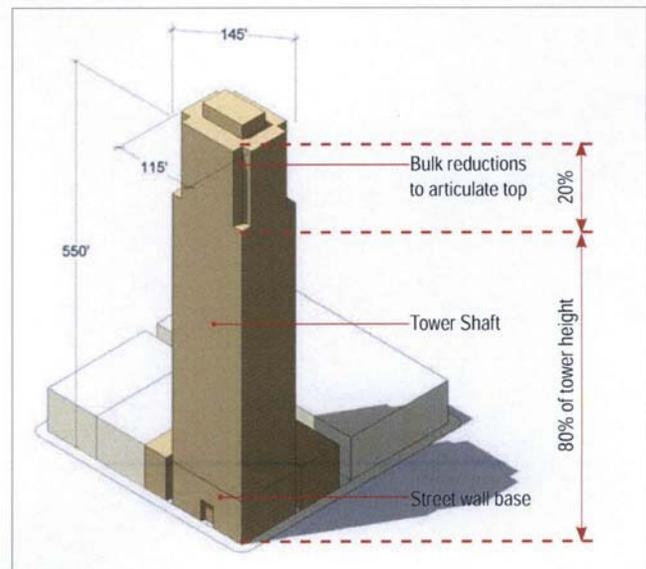
- I. Maximum average tower floor plate: 9,000 sq ft
- II. Maximum plan dimension: 115'
- III. Maximum diagonal dimension: 145'
- IV. 10% bulk reduction required for the top 20% of the tower height, measured from grade. (Bulk reductions need not be at corners, as pictured)
- V. No stepback from street required



Up to 350'

G. Up to +/-550' height

- I. Maximum average tower floor plate: 10,000 sq ft
- II. Maximum plan dimension: 120'
- III. Maximum diagonal dimension: 150'
- IV. 10% bulk reduction required for the top 20% of the tower height, measured from grade. (Bulk reductions need not be at corners, as pictured)
- V. No stepback from street required



Up to 550'

2. Bulk Controls cont.

b. Commercial Buildings

4. Commercial & Commercial/Mixed-Use Buildings

A. Low-rise (Up to 50' height)

- I. No bulk reduction required
- II. No stepback from street required

B. Mid-rise (Up to 85' / Life-safety limit height)

- I. No bulk reduction required
- II. No stepback from street required

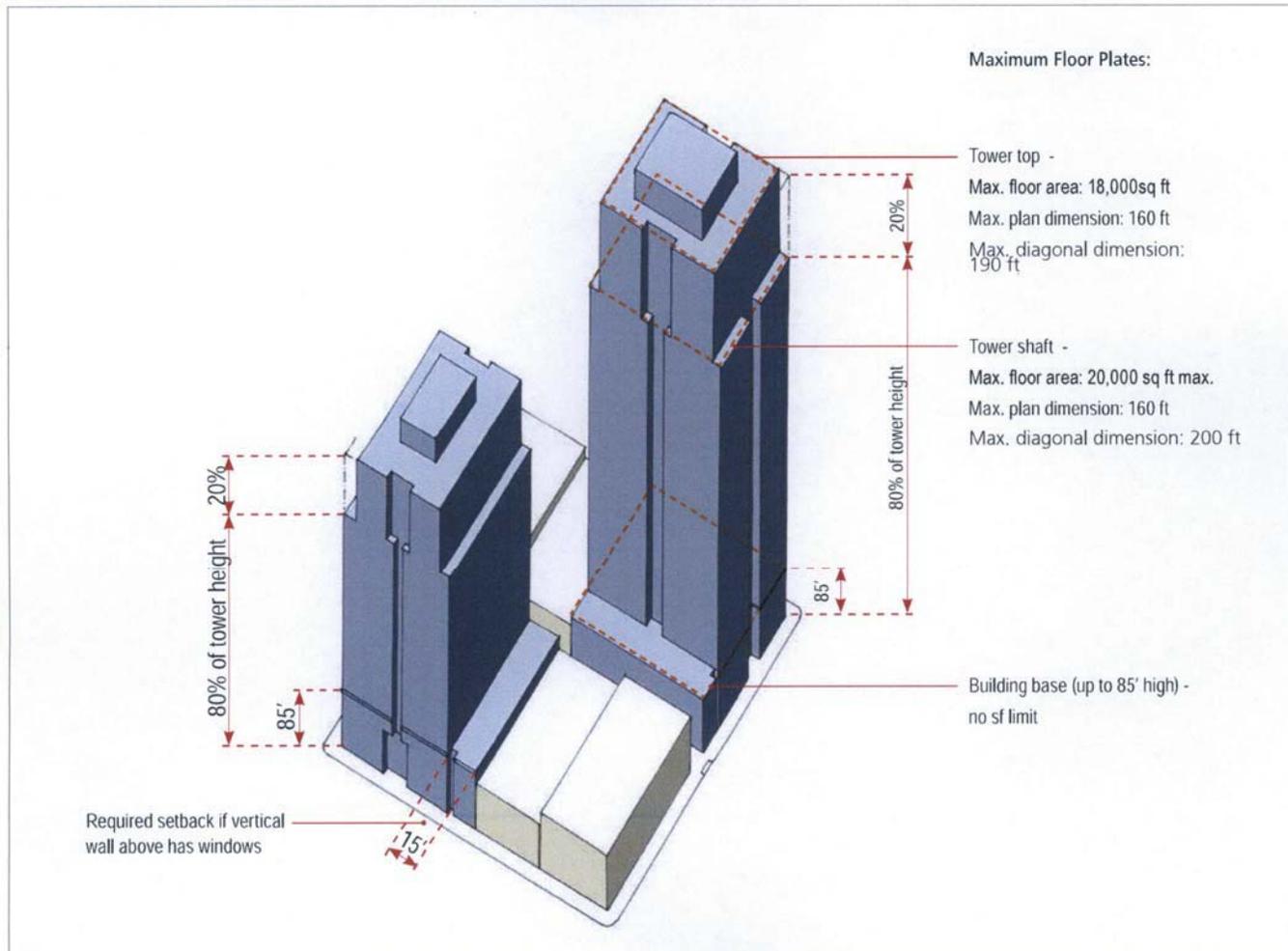
C. Above 85' height

- I. Maximum average tower floor plate: 20,000 sq ft
- II. Maximum plan dimension: 160'
- III. Maximum diagonal dimension: 200'
- IV. 10% bulk reduction required for the top 20% of the tower height, measured from grade. No stepback from street required

Implementation Recommendations

- none

Bulk Controls for Commercial & Commercial/Mixed-Use Buildings



2. Massing & Bulk Controls

c. Tower Separation & Height Differentiation

PRINCIPLE: The spatial separation of any two towers on the same block - and the related qualities of solar access, shadows, views, and privacy - shall be no more restrictive or constricting than if they were on opposite sides of the street; and a tower shall be distinct in size/scale from those adjacent to it.

Background / Intent

One of the benefits of towers is to have unobstructed views for the upper floors. This is particularly important in narrow lots in a multi-parceled block, as is common in the CBD. It is thus appropriate to control how closely towers can be located.

Cities such as San Francisco have controls to establish minimum distances between towers, generally the same dimension as a typical street. This ensures that the spatial separation of any two towers on the same block - and the related qualities of solar access, shadows, views, and privacy - would be no more onerous or constricting than if they were on opposite side of the street.

Guidelines

1. Tower Spacing & Separation

A minimum separation of 80' in all directions is required between residential towers. This implicitly limits the number of towers per block to four.

Since the streets in Sacramento's CBD are all at least 80' wide, it is sensible to establish this as the minimum dimension between towers. After a first tower is built on a narrow parcel in a multi-parcel block, subsequent towers on the same block would have to adhere to this rule. This will help ensure the avoidance of view blockage and preserve sky exposure at street level. (See Figure 1)

2. Height Differentiation

Any new high rise should be at least 50' shorter or taller than the two towers closest to it (measured in plan as a radius from the center of the diagonal). Thus, in Figure 2, if towers B, C and D are existing, new tower A must be 50' shorter or taller than both tower B and tower D.

Implementation Recommendations

- none



Figure 1

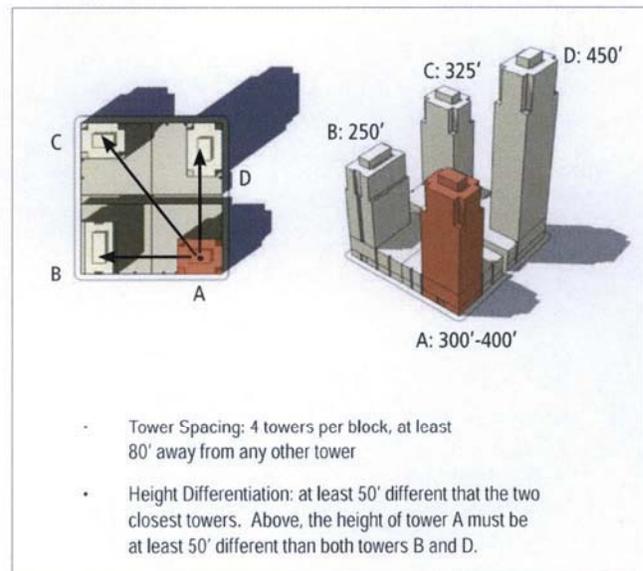


Figure 2

2. Massing & Bulk Controls

d. Distinctive Top

PRINCIPLE: Buildings shall terminate with a distinctive top, to contribute to an architecturally dynamic city skyline.

Tower Articulation - A Distinctive Top

There is a well established architectural tradition of high-rise buildings having a distinctive top terminating the shaft of the tower when seen in silhouette against the sky. To achieve this aim, a 10% bulk reduction for the top 20% of the building height is required. This helps define a penthouse zone at the top of the building and reduces the apparent bulk of the tower as seen against the sky.

Mechanical penthouses should be screened and integrated into the form of the building. Sacramento, unlike many cities requires a helicopter landing platform on the roof for emergency evacuation purposes. This tends to create flat topped profiles. Consideration should be given to various ways of handling this design element without compromising safety or creating a monotonous skyline. (See Diagrams & Photos)

Implementation Recommendations

- none

Tower tops



Bulk reductions and integrated mechanical penthouses contribute to the distinctive tops of these Sacramento towers.

3. Façades

a. Ground Level Uses

PRINCIPLE: The ground floor, especially the area facing onto public sidewalks, shall incorporate the most public and active spaces within the building, to activate the street. Parking shall not be an appropriate use along a building's public frontage.

Background & Intent

In order to have a lively mixed-use downtown it is desirable to encourage retail, commercial and community uses at sidewalk level, and to avoid blank street-walls which typically mask parking areas. Since the downtown's population of workers, residents and visitors can support only a limited amount of retail, provision for ground floor live/work loft space should be considered, where retail is not feasible.

Guidelines

1. Location

In the D2 (CBD plus) overlay areas, ground floor uses should be retail, commercial, or community or live/work.

2. Ground floor heights

- A. Development with retail, commercial, community or public uses on the ground floor should have a clear floor-ceiling height of at least 12'.
- B. They should be no more than 2' above the adjacent sidewalk.
- C. Main entrances, for each use, should be accessible from sidewalk level. (See Figure 1)

3. Residential Uses

Residential ground floor uses in multi-family buildings should be no more than 4' above the public sidewalk grade, if setback is 15' or less. (See Figure 2)

4. Blank Walls Due to Screening of Parking

Blank walls due to grade-level parking or service spaces are to be avoided. Parking shall be screened with an active use (residential, etc.) or depressed by a half or full level. (See Figure 3) (See also Section D.3.j: Screening of Parking)

Implementation Recommendations

- none

Ground Level uses

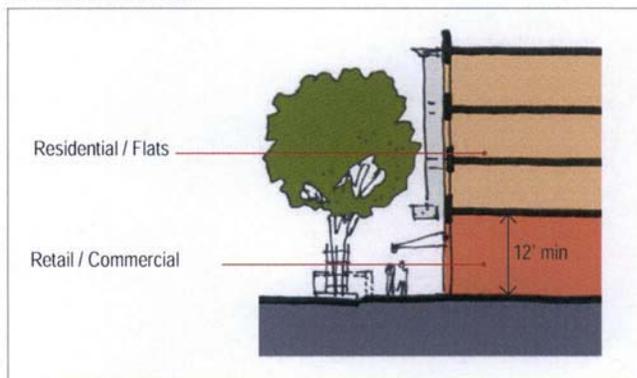


Figure 1. Ground floor mixed uses along retail street

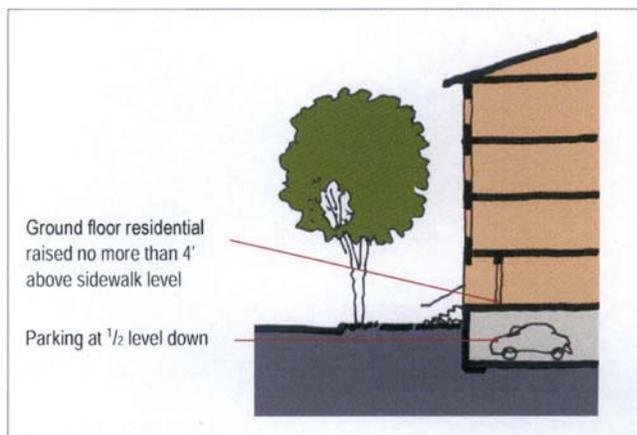


Figure 2. Residential street

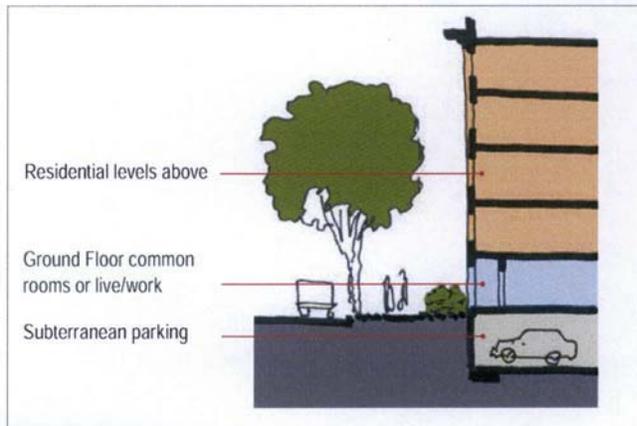


Figure 3. Residential street subterranean parking

3. Façades

b. Transparency

PRINCIPLE: The facade of a building shall be appropriately transparent to allow active ground floor uses, such as retail, commercial or community uses, to be visible from the street.

Background & Intent

Where retail, commercial, community or other active uses occur, it is imperative that they are visible from the street, to both pedestrians and motorists. The facade thus needs to have a high level of transparency in order for these uses to get the amount of visibility required for their healthy business operation (See Figures 1 & 2).

Guidelines

1. Where retail, commercial, community or other active uses occur, the retail level facade should be 75% transparent, but never less than 60% transparent.
2. Opaque and translucent glass do not qualify as transparent.
3. A facade need not be all glass, nor must it be built out of a storefront system.
4. The qualifying area of a facade is from top of finished sidewalk to top of finished floor level of first non-retail (commercial, etc.) level.
5. Blank walls, more than 12' in length are discouraged. If they can not be avoided, one of these strategies should be used:
 - I. Set the wall back behind a planting strip of at least 18". The planting strip may be recessed within the column grid (see Figure 3).
 - II. The wall should be either articulated or decorated with artwork, or both.

Implementation Recommendations

- none

Ground Level Transparency



Figures 1 & 2: Appropriate levels of transparency need not require all-glass buildings. These two buildings - one an historic brick building, the other a contemporary hotel - both have appropriate and successful levels of ground floor transparency.



Figure 3: Narrow planting strip adjacent to wall

3. Façades

c. Articulation of Street-Wall

PRINCIPLE: The street walls defining urban blocks shall be articulated to create rhythm and variety, achieving a fine-grained pattern to the urban fabric.

Background / Intent

Sacramento's urban blocks are historically divided into 40' and 80' wide lot increments. The blocks in the CBD are typically 320' long in their east/west direction, subdivided into multiples of 40' wide lots. This gives the urban blocks their predominant rhythm and variety and creates a fine-grained pattern to the urban fabric. In order to avoid block-long, unbroken facades, it is desirable to require a limit to an unarticulated façade plane, to create visual variety and interest.

Guidelines

1. Vertical Articulation

Façades articulation elements should include notched setbacks, projecting bays, balconies, etc. Articulations should begin at the 2nd or 3rd floor. Ground level articulations, in the form of recesses, should be limited as they create dark and unsafe areas.

- A. The maximum unbroken length of the façade of a commercial building should be limited to 1/3 of a block (100').
- B. Articulation of residential buildings should respond to multiples of 40', in response to the typical historic graining of the lot patterns.
- C. Articulation between façade sections should be at least 2' deep and at least 2' wide.

2. Repetition of Articulation

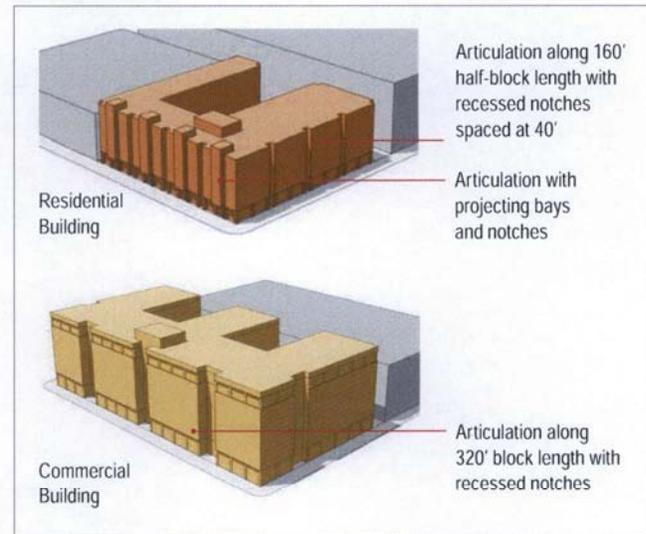
A project should not repeat the same wall surface design:

- A. Horizontally, across more than 1/3 of a block
- B. Vertically, over more than 50% of its floors

Implementation Recommendations

- none

Articulation of street-wall



Façade Articulation



A wide street frontage is articulated with bay windows, projecting balconies, and recessed zones. The major massing articulations begin above the 2nd floor.



Example of façade articulation showing the expression of structural elements, recesses etc.



Block-long, flat, unarticulated façades should be avoided. The repetition without rhythm or variation leads to a scale-less building, without differentiated top, bottom, middle, or ends.

3. Façades

d. Fenestration: Window & Facade Systems & Patterns

PRINCIPLE: To provide human scale to buildings, windows shall be well-proportioned, varied across a project, articulate the wall system, and be operable where appropriate.

Background & Intent

From the outside, windows give human scale to buildings, and animate facades with their varying sizes, patterns, arrangements and treatments. From the inside, they provide for natural light and views. Operable windows also provide for natural ventilation, and are sensible in nearly all types of projects.

Fenestration is the arrangement, proportioning and design of windows. Window types and patterns include: horizontal banding, punched, grouped, recessed, glass curtain wall, etc. Windows should be used as an element which helps to articulate the character of a facade, and designed to reveal the thickness/depth of the facade wall. Windows should be well-proportioned, and operable where appropriate.

Window design is inherently related to the facade system employed. Windows are traditionally referred to as “punched openings” in masonry walls, whereas in curtain walls they are not treated as a separate element from the façade system. Curtain wall systems can also incorporate sunshading systems which are discussed in Section 3f. Further, many buildings use a hybrid of systems, for example where a curtain wall system sits within a larger punched opening of a masonry wall. Thus, the following guidelines and illustrations should be considered to illustrate a range of possible solutions, but is not inclusive of all sound combinations and scenarios.

Guidelines

1. Windows within solid walls (walls not designed as glass & stick curtain wall systems) should not sit in the same plane as the wall surface. They should be recessed at least 4”, with the wall material turning the corner at the window jambs, in order to demonstrate materiality of the wall thickness (see Figures 1, 2 & 4)
2. Windows should have design and scale appropriate to the spaces behind them (see Figure 1).

Windows Types in Sacramento’s Building Stock



Figure 1. Sacramento’s downtown buildings feature a range of window types, including curtain wall / storefront systems within punched openings (top), glass block windows (above left), and monumental windows into special rooms (above right).



Figure 2. The windows in this brick wall are surrounded by both special brick courses and a continuous cast stone frame, whose depth makes the exterior wall appear thick, massive and carved.

3. Façades

d. Fenestration: Window & Facade Systems & Patterns cont.

3. Windows should be grouped to establish rhythms across the façade and hierarchies at important places on the façade (see Figure 3)
4. Curtain wall systems should be designed with projecting vertical and/or horizontal mullions (see Figure 6), or other modulating features (see Figure 7).
5. The location of the glass line should be varied across the façade, to create depth and shadow effects (see Figures 3, 4 & 5)



Figure 5. This building also combines curtain wall window systems with solid punched-opening walls. The wall is given a visual thickness by the varying placement of the glass line.



Figure 3. This university building in Cambridge, MA, designed by Koetter Kim has a repeating double window bay module which sets a rhythm across the façade, which is then interrupted by special conditions at the corner and above the entry.



Figure 6. This office building designed by Caesar Pelli, 560 Mission Street in San Francisco, has a sophisticated system of projecting mullions and framing members, establishing an intricate dialogue between structure, skin and appendage.



Figure 4. This project inserts a curtain wall system within a punched opening. The red brick wall turns to reveal the wall's thickness, and the curtain wall is placed at varying depths within the apparent thickness of the brick wall opening.



Figure 7. This curtain wall, on an apartment building in Portland, is modulated by the strong horizontal lines of the concrete floors and a rhythm of alternating metal panels which establish private and public zones within the building.

3. Façades

e. Entrances

PRINCIPLE: Entrances shall be well-designed, appropriately scaled, and easy to find. They shall be a special feature in the design of the building.

Background & Intent

It is important that entrances to buildings, both commercial and residential, be located in the best possible place. They need to be special features in the design of the building, with a size & scale appropriate to the amount of use. They should be easy to locate from the street, for both drivers and pedestrians. Entrances are an ideal location for the incorporation of public/private art, which can be integrated with the building.

Guidelines

1. Entrances should:

- A. Be given prominence on the street frontage.
- B. Be located to achieve the highest amount of visibility on the site.
- C. Be sized & scaled appropriately for the amount of use and/or prominence of function.
- D. Incorporate craftwork and/or public/private art.
- E. Have a change in material and/or wall plane.
- F. Be appropriately lit, for safety & legibility of signage/ inscriptions.
- G. Have double height lobbies for buildings with more than 30 dwelling units or 4 floors of commercial space
- H. Be individual, with steps, porches or stoops when facing streets, greenways or courts, for ground floor residential units.

2. Entrances should not:

- A. Employ excessive storefront systems.
- B. Employ projecting storefront cubicle pavilions.

Implementation Recommendations

- none

Entrances



Figure 1. Vertical elements and canopy mark the entrance to the Department of Transportation building, Sacramento

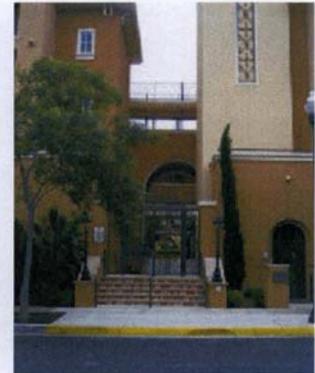


Figure 2. This building entrance is made prominent with wide steps marking the path to the entry from the street.



Figure 3. Entrances to individual units should orient to the street & be characterized by stoops, porches etc.

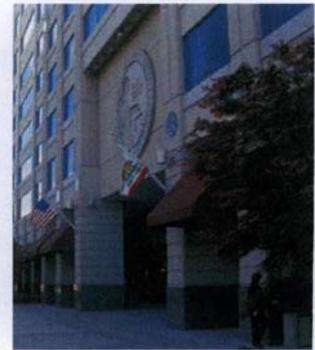


Figure 4. A monumental entrance to a California State office building marked by the official seal



Figure 5. Entrance to the city library, appropriately designed and decorated.



Figure 6. New library entrance, designed simply with a storefront glazing system.

3. Façades

f. Canopies, Awnings, Sunshades

PRINCIPLE: Canopies, awnings and sunshade shall be used to provide shade and cover for people and buildings, contributing to comfort and sustainability.

Background & Intent

Of the many elements of facade design, canopies, awnings and sunshades have a combined role of providing shade for both human activity and for the building itself. Entrance canopies provide cover from sun or rain. Awnings, likewise, provide similar protective cover for the retail activity at ground level. Sunshade, in the form of vertical or horizontal fins, operable louvers or other types of brise-soleil keep the direct sunlight from entering, or hitting the facade of a building, thereby keeping it cool and ensuring more comfortable interior environment.

Taken as a group, these elements play a significant role in the appearance and function of a building. And due to Sacramento’s climate, they are a welcome addition to any building in the city.

Guidelines

1. Canopies

Canopies should be generous in height. They may cantilever over the right of way, or rest on columns, like a portico projected over a sidewalk.

2. Awnings

In busy pedestrian areas, awnings may encroach the public right-of-way by up to 75% of its width, with 8’ min. clearance above the finished sidewalk level (see Figures 3 & 4).

3. Sunshades

The use of sunshading elements is recommended on all projects, especially on their south & west faces. They may be an integrated part of the facade system (as in Figure 5), or act as applied or detached elements (as in Figures 2 & 6).

4. Encroachments

With the exception of ground floor retail awnings and entrance canopies, all canopies, awnings, and sunshading should project beyond the property line by no more than three feet.

4. Quality of Materials

Designers should select durable materials for all shading elements, avoiding the use of vinyl, shiny & flimsy fabrics.

Canopies



Figure 1. Entrance canopy to a residential apartment building on a downtown street.



Figure 2. Giant canopy applied to a commercial office building, Chiswick Park, London, UK.

Awnings



Figure 3. Awnings projecting over right-of-way at ground-level retail.

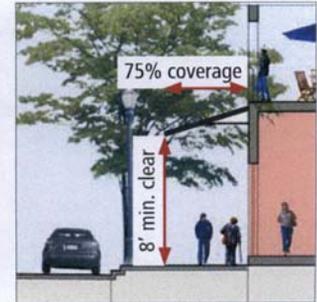


Figure 4. Awning section with minimum clear height above sidewalk & desired coverage.

Sunshades



Figure 5. The CalPERS building, with horizontal sunshades and light shelves.



Figure 6. Applied sunshading elements on a building designed by Norman Foster at Stanford University, Palo Alto, CA.

3. Façades

g. Projecting Elements & Encroachments

PRINCIPLE: Elements that project from a building façade shall serve to animate the building's elevations, by adding visual variety & interest while enhancing the connection between public & private realms.

Background & Intent

Façade projections, such as bay windows on residential buildings, are a desirable feature and are part of California's architectural vocabulary. They add visual variety and interest while enhancing the connection between public & private realms. Because they usually either encroach into the public right-of-way or beyond an established setback, regulating dimensions are required to maintain an appropriate limit on the amount of encroachment. For example, San Francisco permits bay windows a 3' encroachment with a maximum 9' length horizontally and either angled or squared-off returns.

Guidelines

1. Bay Windows

Bay Windows should be permitted a 3' encroachment with a maximum 8' length horizontally and either squared-off or angled returns. (The angled return is in addition to the 8' length.) At least 6' should separate bay windows horizontally. Projections should allow at least 12' clear from top of sidewalk to underside of projection (see Figures 1-3).

2. Balconies

- A. Facades may be articulated with balconies.
- B. Balconies should be permitted a 3' encroachment over the public r.o.w., or up to a 12' encroachment over a setback line, permitted that the balcony does not cross into the public r.o.w. Balconies should have a maximum 12' length horizontally. At least 10' should separate balconies horizontally. Grouped balconies should employ integrated screens or other privacy measures. Balconies should allow at least 12' clear from top of sidewalk to underside of balcony if projecting over sidewalk; otherwise, a balcony at the ground floor is considered a porch and requires no clearance above grade (see Figures 4 & 6).
- C. Some portion of the glazing behind a French Balcony must be operable. French Balconies are not permitted in front of solid wall surfaces.

Bay Windows

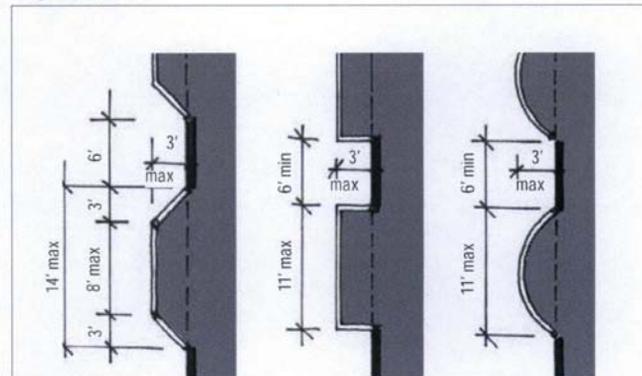


Figure 1. Bay Windows (plan views), left to right: segmented, square, and curved

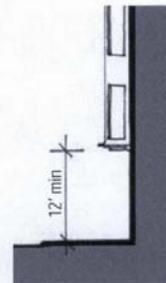


Figure 2. Bay Window - minimum clear height above finished sidewalk

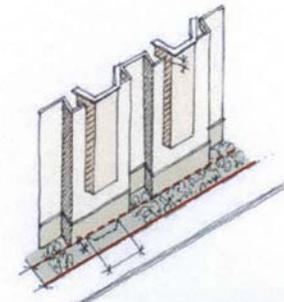


Figure 3. Bay Windows projecting over the setback line. They should be at least 6' apart.

Balconies



Figure 4. Stacked balconies on an apartment building



Figure 5. French balcony covering windows & operable doors

3. Façades

g. Projecting Elements & Encroachments (cont.)

4. Porches and Stoops

Elements such as porches and stoops should be permitted to encroach within the required setback from the public right-of-way/property line up to 12' (though they should not go beyond the parcel line) (see Figure 6).

5. Cornices

Projecting cornices are encouraged to help form a distinct profile to the building's top edge. They may project up to 5' over the right-of-way (see Figures 7 & 8).

6. Colonnades & Arcades

- A. Colonnades are encouraged, especially when facing south or west. They may project over the public right-of-way, and should have active uses in the ground floor space facing onto them. (see Figure 11).
- B. If placed in the private parcel, free access should be given throughout the colonnade to the adjoining sidewalk.
- C. Colonnades should be vertical in proportion, in both height & depth, at a ratio of at least 1.25:1.
- D. If projecting over the public right-of-way, they should not have occupied space above, except for restaurant dining terraces.
- E. Arcades, though an historic element in Old Sacramento and parts of Downtown, are not required to replicate their historic design and detailing.

Implementation Recommendations

- Review, and revise as appropriate, Chapter 17.60 (Height & Area Regulations) of the City's Zoning Code to allow for. Allow for 3' balcony/bay window encroachments; and for colonnades to be built out over the adjacent sidewalk / public r.o.w.

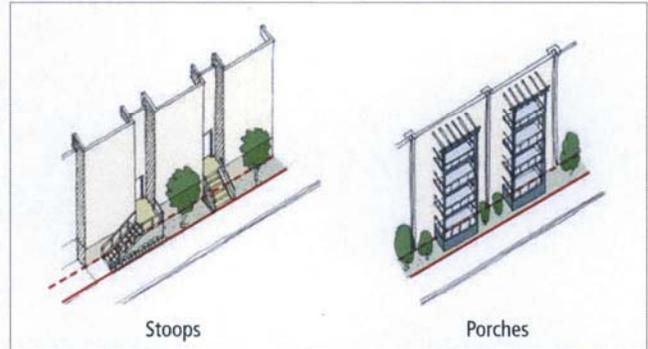


Figure 6. Stoops and porches are permitted to cross the setback line (red dotted) into the landscaped setback zone, permitted that they do not cross the property line (red).

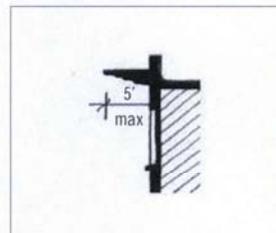


Figure 7. Projecting Cornices



Figure 8. Generous projecting cornice atop mixed-use loft development in Sacramento



Figure 9. Stoops projecting into the setback zone

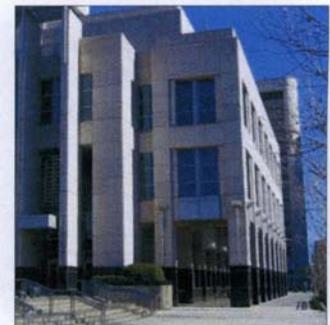


Figure 10. Projecting colonnade over sidewalk at Sacramento's Federal Courthouse.



Figures 11 and 12. Projecting colonnade over retail sidewalk with dining terrace above, Pike Place Market, Seattle, WA

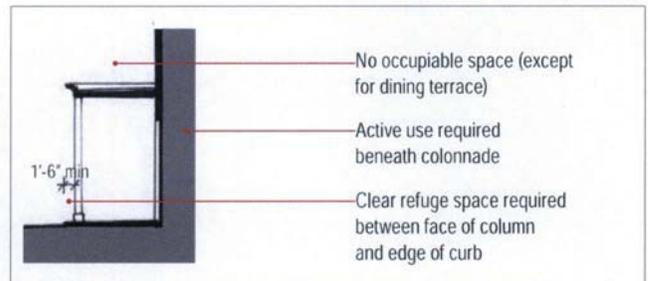


Figure 13. Projecting Colonnade Diagram

3. Façades

h. Materials

PRINCIPLE: Buildings shall be constructed with exterior materials of the highest quality. Exterior materials, textures & colors shall be selected to further articulate the building design.

Background / Intent

Sacramento has a significant historic building stock which is constructed from a wide variety of building materials. The city's tree-lined residential areas and Old Sacramento are built primarily out of timber. The Central City has fine quality urban buildings of local stone, stucco, and numerous brick colors. And the recent generations of buildings in the Central Business District include well-designed wall surfaces of imported stone, glass and metal. Although Sacramento has a growing handful of signature buildings – the Elks Club, 900 J Street, Park Plaza Tower - it is clear that there is no single or particular material which signifies a building as being of Sacramento, and therefore no specific building material should be required on new developments. However some recent trends in construction practice have produced built environments with awkward and unusual situations related to the selection and configuration of finish materials, and two needs clearly arise: to regulate how materials are used, and to restrict the location and use of certain materials which detract from the urban environment.

Guidelines

Buildings should be built out of quality, natural materials, as they tend to last longer, be more durable, look better, and age better than fake and simulated materials. Materials and colors should be related to masses and volumes, with changes in material/color following changes in mass (see Figures 1 & 2).

1. Material Uses

- A. New developments should respond in a compatible manner to the existing color, texture and materials used on surrounding significant buildings.
- B. All Major Projects should utilize compatible materials on all four sides of the building.
- C. Durable, quality natural materials should be used on the street level portion - at least the bottom 20', from finished grade - of all new developments. Examples of these materials include stone (e.g. granite, marble), terra

Material Variety in Sacramento's Central City



Painted stucco



Orange brick and terracotta

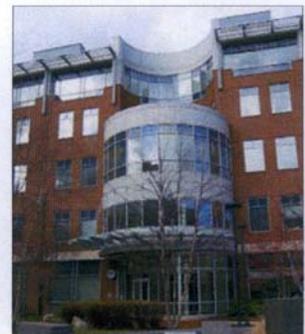


Stone



Glazed Masonry

Change in wall-plane / volume at change in material



Figures 1 & 2. Different materials and colors should be separated with a change in plane.

3. Façades

h. Materials cont.

cotta or tile, brick, transparent glass, metal (e.g. bronze, brass, chrome, baked enamel) when used judiciously, etc.

- D. More than two colors and materials should be incorporated in a design. Intense colors, if used, should be accents. Mono-chromatic schemes are discouraged.
- E. On a wall surface, a change in material or color should be designed with a change in wall-plane of at least 4 inches. Thus, a reveal channel would not be an acceptable way to transition from one material/color to another.
- F. Materials should wrap corners and continue for at least 12 inches before a material change.
- G. Graffiti resistant coating should be applied on the lower portions of alley elevations.
- D. The use of exposed concrete at ground level should be minimized.
- E. The use of vinyl as an exterior building material shall be avoided.
- F. No material should simulate another material.
- G. If plaster is used, it should have a smooth finish.
- H. Imitation plaster should not be used on the bottom 30' of any building.
- I. Material Restrictions do not apply to building surfaces fronting onto alleys.
- J. Fiber cement board should not have imitation textures.
- K. In walls finished in concrete block, the mortar color should not be darker than the block color.

2. Material Restrictions

- A. Extensive use of non-durable materials should be avoided on all projects, but especially on buildings over three stories.
- B. The uses of reflective glass, mirrored glass and dark colored glass should be avoided.
- C. The use of metal should be minimized on buildings which are primarily residential.

3. Sustainable Practices

Projects should be deigned & developed using the best green practices, and seek to use materials that are mined/grown/harvested/assembled locally.

Implementation Recommendations

- none

3. Façades

i. Lighting

PRINCIPLE: Building façades shall have illumination appropriate to their use and location, with light fixture design selected to best complement the architectural design of the project.

Background & Intent

Façade lighting should be designed to enhance the massing and vertical surfaces of the project. Building façades should have illumination levels appropriate to their use and location. The design needs to carefully balance the need to provide appropriate, often robust, lighting levels while both avoiding light-trespass and facilitating night-sky access.

Guidelines

Levels, Direction, and Quality of Illumination

1. Levels of illumination should be responsive to the type and level of anticipated activity, without under- or over-illuminating.
2. Higher lighting levels should be provided on buildings or in areas with high levels of nighttime activity. Thus, commercial shopping buildings should have higher levels of illumination than residential buildings with lower levels of nighttime activity.
3. Façade lighting should focus on illuminating the building's surfaces. Light fixtures should include internal reflector caps, refractors, or shields that provide an efficient and focused distribution of light and avoid glare or reflection across property edges, onto adjacent buildings.
4. Illumination should avoid all unnecessary lighting of the night sky.
5. For the lighting of open spaces within the private realm, refer to the Pedestrian Realm: Street Lighting guidelines.
6. Provide lighting at appropriate scales for the component being illuminated, including accent lighting where appropriate.
7. Fixture design should complement the architecture, and be integrated into the whole of the building design.
8. Comply with both Title 24 and IES/ILDA recommendations.

Lighting



Lighting needs to be appropriate to a building's use & location. It should be integrated into the façade design, as seen here in the Fine Arts building along Shattuck Avenue in Berkeley.

Implementation Recommendations

- none

4. Rooftops & Mechanical Penthouse Enclosures

PRINCIPLE: Rooftop design shall be integrated into the overall design scheme of the building, including mechanical penthouse enclosures and energy performance measures.

Background & Intent

The roof levels of a building need to accommodate servicing and life-safety requirements, while retaining a form that will be a distinctive & memorable contribution to the city skyline. The key issues in rooftop design are integrating into the design of mechanical penthouses and, where required, a helicopter landing platforms; and designing the rooftop to reduce heat-island effect and facilitate stormwater management.

Guidelines

1. Mechanical Penthouses

Mechanical penthouses should be screened and integrated into the formal design of the building. (See Figures 1-3)

2. Helicopter Landing Platforms

Sacramento, unlike many cities requires a helicopter landing platform on the roof for emergency evacuation purposes. This tends to create flat topped profiles. Consideration should be given to various ways of handling this design element without compromising safety or creating a monotonous skyline.

3. Roof Surfaces

To reduce heat island effects, follow one of these strategies:

- A. Specify roofing materials that have high solar reflectivity and high emissivity of the life of the material. Materials should achieve a solar reflectance index (as per LBNL Cool Roofing Materials database) of at least 78 for low-sloped roofs and 29 for high sloped roofs.
- B. Use green roofs, planted with any of the following: vegetated surfaces, plants, shrubs, small trees, etc. Green roofs should be installed on at least 75% of the roof area, not including helicopter landing pads and occupiable roof terraces (in residential buildings only).
- C. Install PV arrays on at least 50% of roof areas.

Rooftops



Figure 1



Figure 2



Figure 3

Figures 1, 2 & 3 Mechanical penthouses at roof level integrated into the overall design of the building's massing

Implementation Recommendations

- Consider relaxing the requirement for a rooftop helicopter landing platform (as it is not required in most US cities).

5. Development along Alleys

PRINCIPLE: Protect and enhance existing alleys by utilizing them as frontage for housing, parking, commercial activity and open space.

Background / Intent

Sacramento's alleys are a city-wide resource which should be fully utilized and enhanced, rather than remain as primarily service ways, especially in the CBD, because of their narrow 20' width. There are, however, locations where small scale residential buildings and courts open onto the alleys, creating a contrast with the width and scale of the regular 80' wide streets and providing a respite from the repetitive urban framework of identically sized blocks. Beyond the CBD, alleys typically provide primary or secondary vehicular access to residential properties, and occasionally support residential, commercial or industrial uses.

The 20' alley right-of-way width is just wide enough for one-way vehicular traffic without either sidewalks or curbs. This width, with structures built at zero-lot line, is insufficient for proper head-in turning into a garage.

Guidelines

1. For new development fronting the alley a minimum 5' setback is recommended for turn-in garage access.
2. New buildings facing the alley should be scaled appropriately, to permit light and air relative to the width of the alley itself and the uses it supports. Height limit guidelines are as follows:
 - a. D1 (Residential): Maximum height of 35' to plateline.
 - b. D2 (Commercial / CBD): Maximum height determined by Height Restriction plan.
 - c. D3 (Retail/Transit Corridors): Maximum height of 55' to plateline.
3. Refer to the discussion of alleys and their development potential in Chapter 3, Section B of this document, including commercial District Alleys, Shared Use Alleys, Residential District Alleys, and Commercial District Pedestrian Alleys.

Implementation Recommendations

- none



Fulton Grove, San Francisco, is an example of a residential alley with dwellings fronting the right-of-way. Unit pavers, front doors and no curbs make this a pedestrian friendly environment.



Redevelopment along both sides of Natoma Street, on of the narrow alley-like streets that subdivides the giant blocks South-of-Market in San Francisco., The right of way is just 35', but still wide enough for sidewalks, one-way traffic and on-street parking.

6. Sustainability

PRINCIPLE: New buildings shall be designed for optimum sustainability, especially with respect to energy performance and resource conservation.

Background / Intent

New buildings and renovations should be designed to be sustainable, especially with respect to energy performance. This is important for a city like Sacramento, located in a predominantly warm and dry climate. With the imminent dangers of global warming, building design, construction and operation should clearly attempt to reduce CO₂ emissions, and achieve high energy performance.

Guidelines

1. Rating Systems

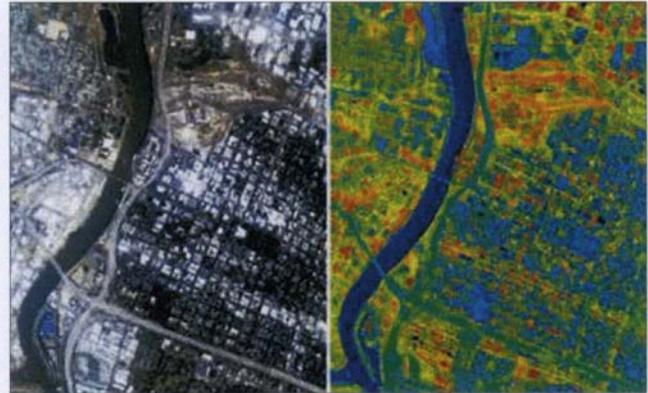
Rather than including specific green design features - like planted roofs, wind turbines, solar collectors and PV panels - new development should take a more comprehensive and measurable approach. All development should meet the criteria listed below for each project type:

- A. Retail & Commercial Buildings and Hotels
 - LEED certification.
- B. Multifamily
 - Enterprise Green Communities criteria, or according to the Green Multi-family Design Guidelines by the California Integrated Waste Management Board.
- C. Single-family houses
 - LEED for Homes certification, or an Ecohomes Very Good rating.
- D. All other development types
 - LEED certification.

2. Alternate Measures

If a project team feels that the above rating systems are not appropriate for their development project, they are welcome to propose an alternate rating system, or clearly illustrate how their project is wholistically either equally or more sustainable than if using one of the above strategies. Acceptance of this strategy would be at the discretion of the planning reviewer, and should not be presumed.

Access



NASA flyover photograph of Sacramento, July 1998

Thermally sensed image of Sacramento



Joe Serna J. California EPA Headquarters Building, Sacramento, completed in 2000, and awarded a LEED Platinum certification in 2004.



Inland Revenue Center, UK. The building passively regulates temperature and natural air ventilation whilst conserving energy.

Implementation Recommendations

- Adopt as policy the requirement that all new construction projects meet the measured sustainability levels listed above.

7. Public Art

PRINCIPLE: Public Art shall be used to enhance the public realm, and is best incorporated into the building's design, in a way that complements the architecture of the building.

Background / Intent

Many public art projects, in Sacramento and across the county, have the lasting effect of an afterthought, a project which is singular and detached from the development project that paid for it. Recent decades have seen public art pieces transform from the scaleless abstract sculptures of the 60's and 70's to unobtrusive, marginal pieces of indistinction resulting from community driven processes. The desire for maintenance-free, politically correct pieces has driven projects to follow a path of least resistance towards paving patterns and in-lieu fees.

An alternate path in this process would be to locate the public-art component within the private realm; on the building, which was the case historically, prior to the conception of public art as a required byproduct of the development process. A good local example of integrated public art is the US Bank tower on Cesar Chavez plaza. Here, the public art component consisted of four specially commission allegorical paintings depicting the history of Sacramento, and a pair of sculptures framing the building's main entrance forecourt.

Guidelines

The public art component of a project should be incorporated into the architecture of the building, in a complimentary way. Suggested strategies include sculptural relief panels, integrated architectural ornaments, signage, entablatures, wall paintings or mosaics, ornamental ironwork and artistic floorwork.

1. Paving patterns - unless they are pictorially representing an image, map, etc.- should not fulfill the art component
2. Source content for the artwork should be the history of the state or city, notable local historical figures, etc.
3. Artwork may be stand-alone, with appropriate scale & placement

Implementation Recommendations

Review of the city's Public Art Master Plan to allow for public art to be integrated with the building, and that artists and craftspeople who are competent in this type of work are pre-qualified for the process.



US Bank tower lobby paintings



Entrance to the Jesse H. Jones Graduate School of Management, Rice University (2002)



Ornamental window screen at Reagan national airport, Washington, DC (1997)



Entrance to Clinton School, New Haven, CT (2003-5)



Foliated Scroll Decorative Panels, Nashville public library, 1998

E. Parking and Vehicle Access

Like many other American urban center's, the CBD has more than its share of parking structures and surface parking lots. And like in those other cities, Sacramento has begun a process of land reclamation, realizing that its downtown land is too valuable to save for the housing of cars.

Creative parking solutions are essential for allowing Sacramento to continue to foster residential and commercial redevelopment in its downtown and transition zones.

New development must balance the need for automobile parking with the requirements of an active urban environment, which is often at odds with generous vehicular provisions.

The design of commercial and residential buildings can sufficiently accommodate required parking while still contributing good urban design to the city. Adequate parking provision need not produce a dead public realm of sidewalks lined with parking garages.

Accommodating all of the cars



VS.



Places to live, work and park

1. Location and Configuration

PRINCIPLE: New development shall balance the need for automobile parking with the requirements of an active urban environment, employing creative parking solutions

Background / Intent

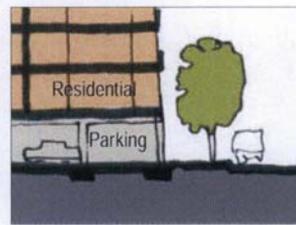
The design of commercial and residential buildings can sufficiently accommodate required parking demands while still contributing a well-designed public realm to the city.

Guidelines

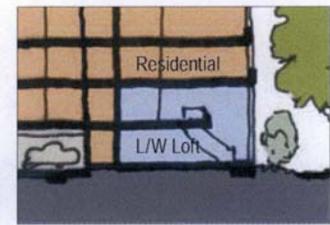
Parking location & Access

1. Ground floor parking should not be exposed to the street. It should always be wrapped with an active street front use. (See figures 1, 2, 5 & 6)
2. Avoiding exposed parking levels above street level, as in Figures 3 & 4. Any parking above street level should be wrapped with other uses (unless constrained by parcel). Since Sacramento has a high water-table level, basements beyond one level are inadvisable and can be financially prohibitive. The relatively high required parking ratios typically produce the need for multiple parking levels above grade. When wrapped with residential or other uses, such as in the 800 J Street Loft building, this is both an attractive and a practical solution. It is significantly less desirable when parking levels are exposed to the street, such as occurs on multiple office buildings in downtown.
3. Residential parking requirements should be accommodated on-site.
4. Surface parking lots should be avoided as a land use in the CBD. (See Figure 7)
5. If the site conditions are so restricted that exposed parking is unavoidable:
 - a. The parking structure shall be designed with articulation and fenestration patterns consistent with the overall project (see Figure 8).
 - b. It is preferable to have parking levels exposed on the east or west elevations of the 'numbered streets', as is the current pattern with several large commercial buildings, and to avoid this condition on the north or south facades of the 'lettered streets'.

Frontage to Street



Figures 1 & 2



Figures 3 & 4: Exposed parking above street level

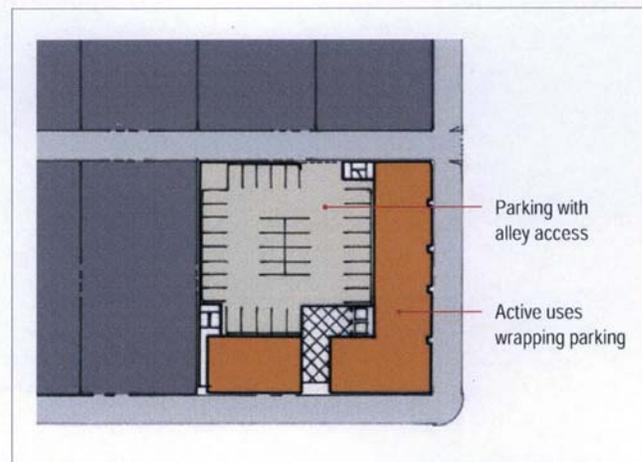


Figure 5. Parking not exposed to street, but wrapped with active uses

1. Location and Configuration (cont.)

- 6. Garage night lighting should not be directly visible from the street.

Implementation Recommendations

- 1. Review, and revise as appropriate, Chapter 17.64 (Parking Regulations) of the City's Zoning Code to allow for no visitor parking for residential uses in the CBD.
- 2. Commercial and retail parking requirements may be accommodated off-site, in public garages.



Figure 6: Narrow entry to podium parking, between ground floor liner retail uses with residential above, San Francisco



Figures 7: Surface parking lost should be avoided as a land use in the downtown.



Figure 8. Parking structure in downtown Denver, where the facades are designed with articulation and fenestration patterns consistent with the overall project.

1. Location and Configuration

a. Structured Parking

PRINCIPLE: Creative parking solutions include structured parking, provided to achieve parking requirements on site while maintaining active-use development along the edge of a parcel.

Structured Parking

Following are a series of parking solutions for medium to high density urban development. These solutions are based on the key design parameters of new development in downtown Sacramento: a limited amount of below grade parking; a typical parcel depth of 160'; available vehicular access from a rear alley; and the desire to park a large number of cars on the parcel, rather than in remote garages.

Figure 1. One-Level Podium Parking (Corner Parcel)

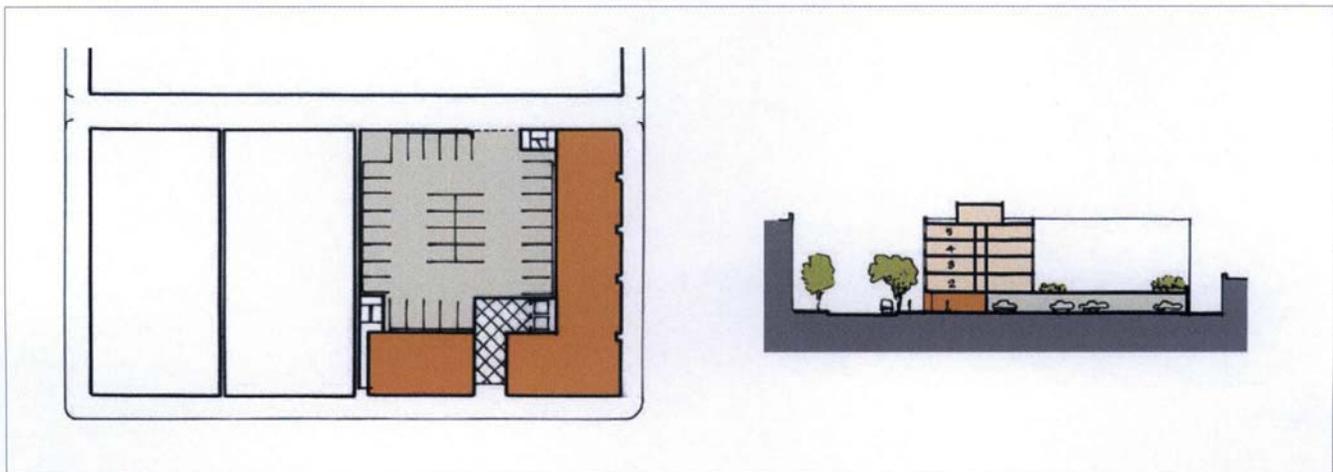
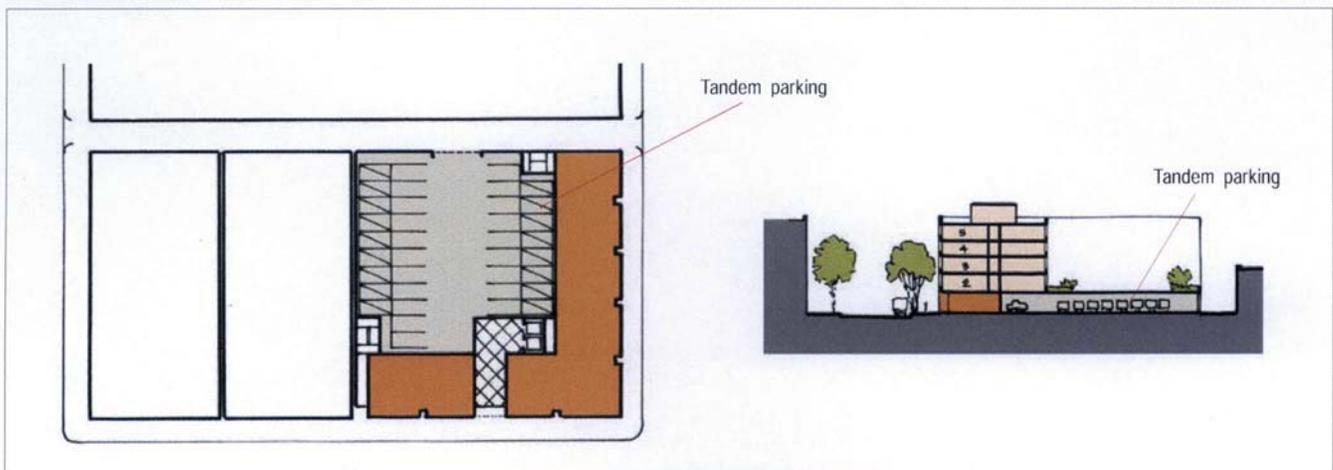


Figure 2. Tandem/Valet Parking (Corner Parcel)



1. Location and Configuration

a. Structured Parking (cont.)

Figure 3. Two-Level Podium Parking with Ramp (Mid-Block Parcel)

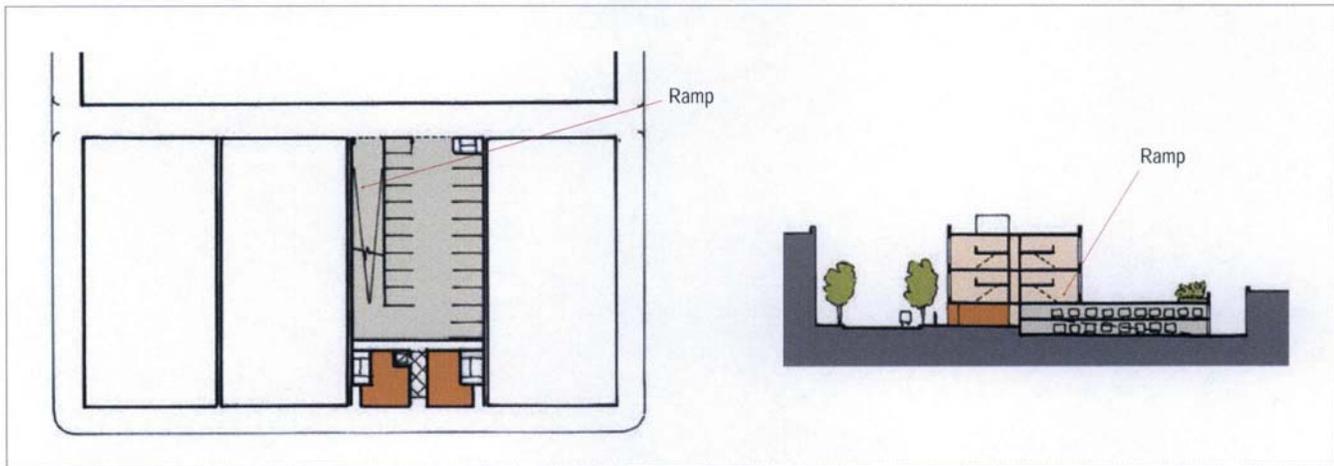
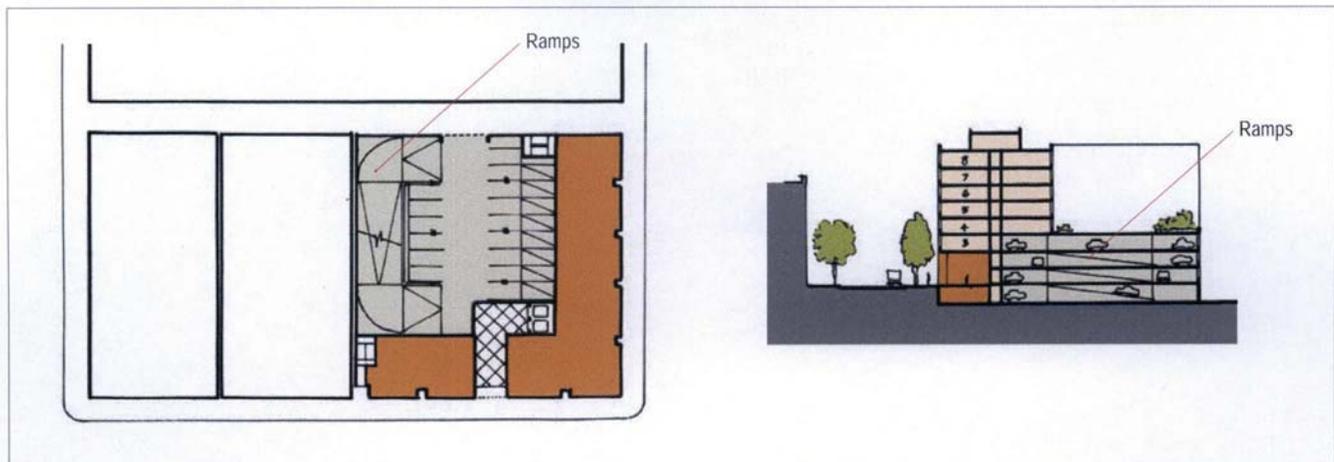


Figure 4. Four-Level Podium Parking with Ramped Decks (Corner Parcel)



1. Location and Configuration

a. Structured Parking (cont.)

Figure 5. Multi Level Podium Parking with Ramps (Half-Block Parcel)

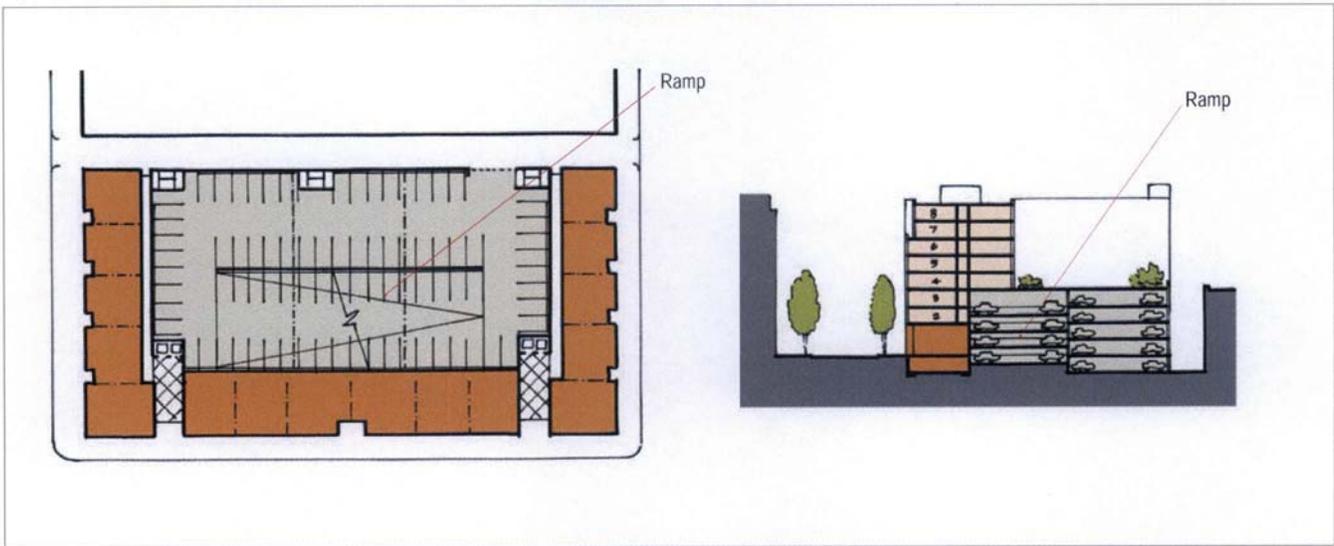
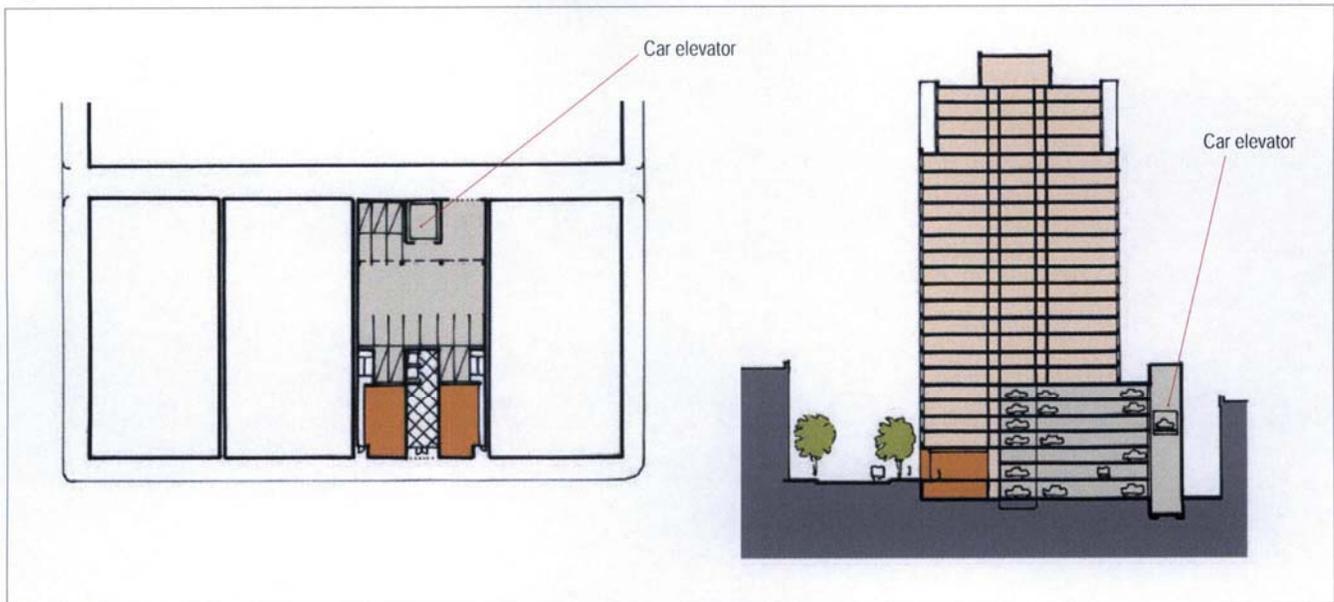


Figure 6. Multi Level Garage with Parking Elevator (Eighth-Block Parcel)



1. Location and Configuration

b. Surface Parking

PRINCIPLE: Surface parking shall be located on the side of, or behind, any use, and should be designed with sustainability measures to mitigate its environmental impacts.

Background / Intent:

Surface parking, on private parcels, is not an efficient land use in the central city, and inherently accelerates stormwater runoff and raises temperatures in the city. In the rare occasion that surface parking may be deemed an acceptable and appropriate parking solution - such as in very low-intensity use areas of the city, measures should be taken to minimize its environmental impact.

Guidelines

1. Surface parking areas should be landscaped with trees, shrubs and planting. In the rare locations where parking areas are exposed to the sidewalk they should be separated from the public right-of-way by a landscaped strip or hedge. (See Figure 1)
2. Chain link fencing is not permitted as boundary screens for parking or secure areas.
3. Parking areas should be designed with sustainable storm water management practice. This can include draining to bio-swales and rain-gardens (see Figure 2); or permeable paving materials allowing rainwater to filter directly into the ground. On-site retention and filtering strategies are encouraged. Retention ponds are discouraged in urban areas.
4. Service areas should be screened from view with landscaping or screen walls.

Implementation Recommendations

- Consider disallowing surface parking as an as-of-right land use in the central city.



Figure 1. Parking area should be screened with low wall and landscaping



Figure 2. Sustainable stormwater management: parking area drains to rain-garden

2. Bicycle Parking

PRINCIPLE: Development projects shall foster Sacramento's long term sustainability strategy by providing ample well-designed bicycle parking on-site.

Background / Intent:

Sacramento is an ideal city and region for bicycle ridership. The climate and topography provide excellent commuting and recreational opportunities for cyclists. On-site bicycle parking ensures that cycling is a viable alternative to driving.

Guidelines

1. Bicycle Parking: Amount

All new development projects should provide adequate bicycle parking, storage and shower/changing rooms as part of the development, as follows:

A. For non-residential uses

- I. Parking for 7.5% or more of all building users, measured at peak periods.
- II. Shower/changing facilities for 0.5% full-time equivalent occupants.

B. For residential uses

- I. Covered bicycle storage facilities for 15% or more of building occupants.
- II. No shower/changing facilities required.

2. Bicycle Parking: Location

- A. Avoid locating bicycle parking in hidden areas, dark locations, or garage recesses.
- B. Include bicycle lockers in all parking garages. Lockers should be located in areas visible to the parking attendants and/or providing easy access to bicycle uses. Monthly key lockers may be preferable to the coin operated varieties in some locations since they discourage vandalism.
- C. Separate bicycle **parking from vehicle** access areas to reduce the ability of vehicles to be used in theft. Provide bicycle lockers in areas where theft may become a problem. (VTA).



Bicycle parking area in public open space of parcel

Projects should be consistent with and supportive of the policies of the SACOG Regional Bicycle, Pedestrian, and Trails Master Plan (May 2007 Amendment)

Implementation Recommendations

- cont.

F. In-fill Development in Historic Neighborhoods

In-fill development in historic districts shall be a viable strategy to enhance the value, vibrancy and character of those districts, keeping them functioning and relevant for future generations.

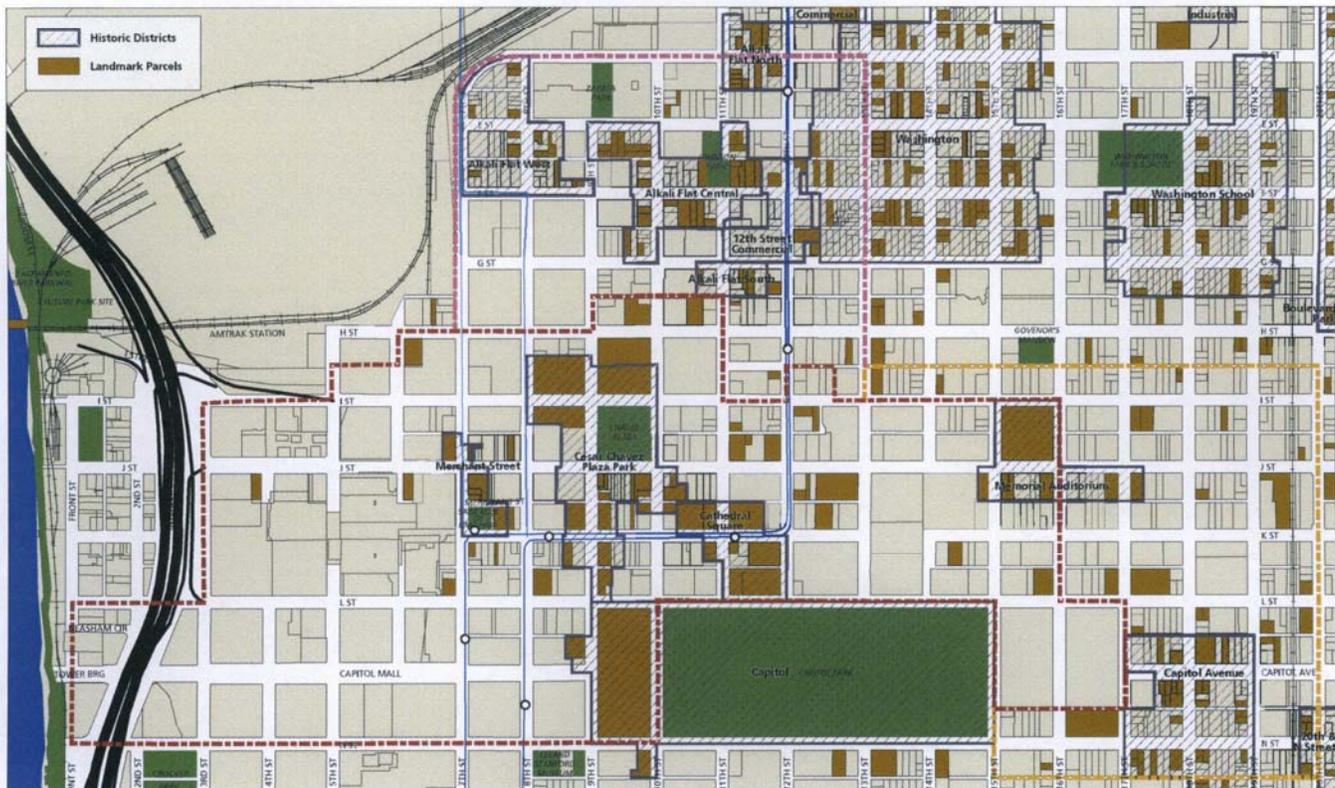
Sacramento's historic heritage of listed and contributory buildings, historic districts, and the preservation of historic features such as hollow sidewalks is an important part of the city's identity and character. The contribution of buildings such as Old City Hall, Memorial Auditorium, Cathedral of the Blessed Sacrament, the Elks Building, the Hall of Justice, the Sacramento Bank Building, the train station, and districts such as Old Sacramento, cannot be over stated. The distribution of these resources throughout the Central City provides a rich resource around which to build. They add texture and character to the urban fabric that cannot easily

be replicated by new development. The design of future development should not be required to imitate or mimic these resources - although this would be an acceptable design strategy - but take special care to ensure that the materials, form and scale of new development relate to adjacent historic buildings and structures.

Historic Neighborhoods

New buildings in Historic Districts should be designed in a manner consistent with the dominant characteristics of the surrounding Historic District. This requires an extensive amount of field research, architectural literacy, and coordination with Historic Preservation staff. While mimicry is not promoted, an exact copy may be preferable to an uninformed contemporary interpretation.

Sacramento's Historic Resources



A partial map of the center city with historic districts shown in the hatched areas. Most parcels within the central city are either within an historic district, or less than two blocks from one.

Building Types

Most kinds of development, including residential, mixed use, and commercial have the potential to contribute to an historic district, or be an urbane and civil neighbor to and landmark building. As long as the use is permitted by zoning, the acceptability of the project should be dependent on the design of the scheme (form, massing, scale, character, etc.) rather than on the density or building type. If well-designed, building types ranging from mid-rise commercial to high-rise residential buildings can be complimentary to the character of the neighborhood, although may be significantly taller than many or most of the surroundings. Many historic neighborhoods in the city have historic buildings which exceed 100', yet still clearly contribute to the character of the district. Height alone should not be cause for refusal of a project, but rather design quality.

The City of Sacramento's Historic Preservation director or staff should be consulted on acceptable solutions where a building's height or program may at first seem incongruent with its context.

Context

In-fill projects in historic districts, and adjacent to landmark parcels are always unique cases. No single solution will be appropriate for all occurrences. Thus, the key guidance is that new development should be responsive to context, ensuring that the scale, form and materials used relate positively to adjacent historic buildings and characteristics of the neighborhood. Shown here are such examples.



Figure 2. On Cesar Chavez Plaza, newer buildings mix with Sacramento's landmark civic buildings.



Figure 3. View looking north on 9th Street in the Sacramento CBD showing an historic brick building next to more contemporary developments of dissimilar height, the J Street Lofts and the US Bank Tower.



Figure 1. On Sacramento's J Street, the Sheraton Grand hotel is designed with a similar rhythm and transparency at ground level as its historic neighbor.

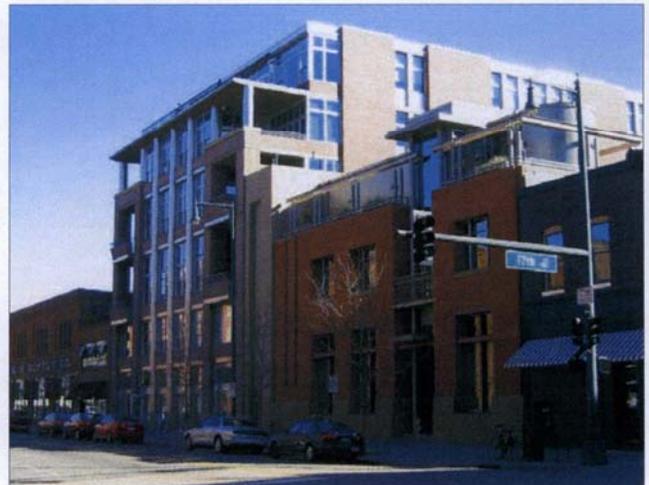


Figure 4. Two redevelopment projects in Denver's Lower Downtown District (LoDo), inserted between existing brick buildings

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