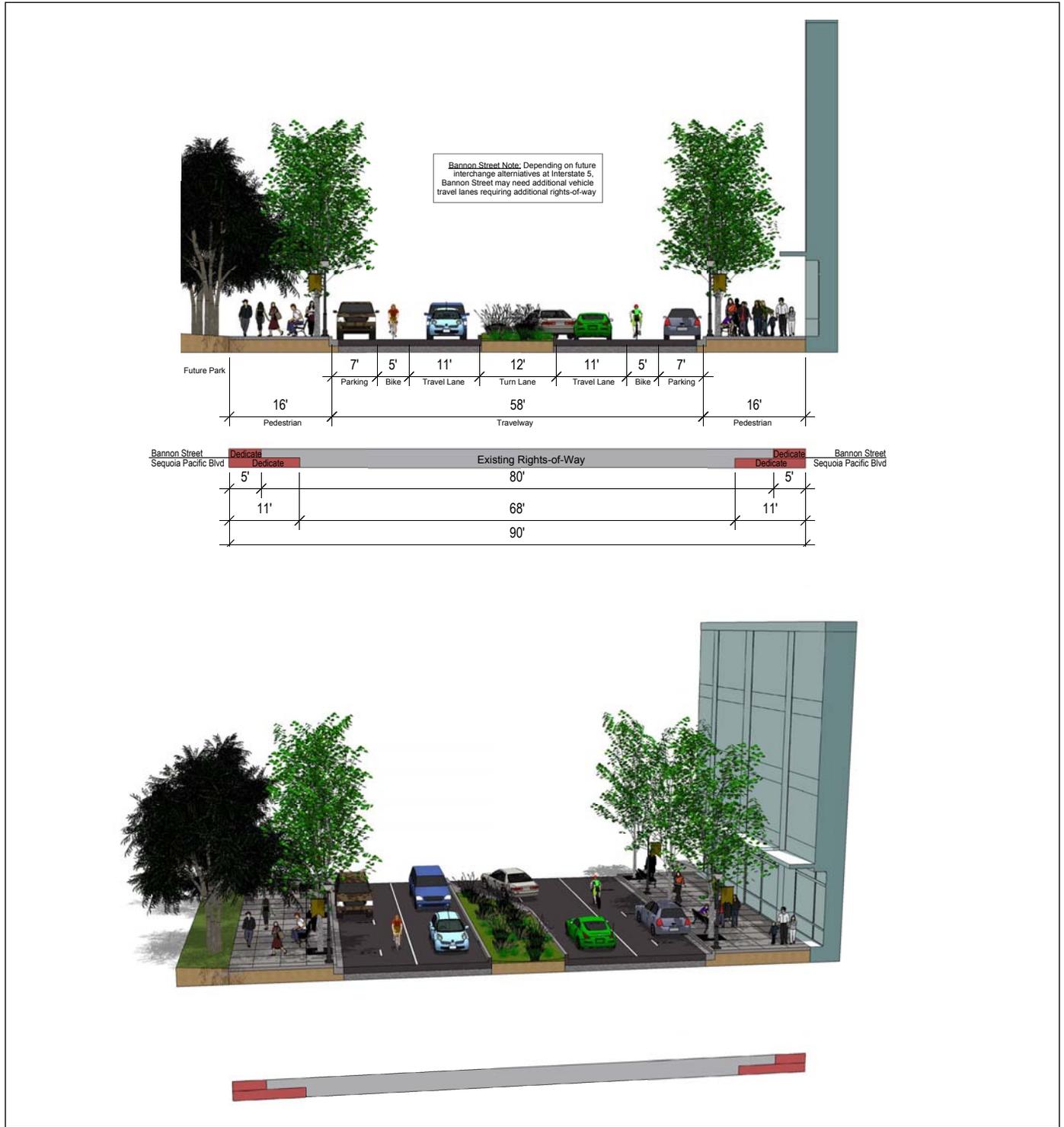


C. River District Streets



Section 16: Bannon Street (West of Sequoia Pacific) / Sequoia Pacific Blvd (North B Street to Bannon Street)
 Looking West / Looking North For large format drawings, refer to the River District Specific Plan

Greenway Street

Section 17: Street W & Richards Boulevard East of 16th Street (similar)

This street section is designed as a gateway promenade street exhibiting a greenway that filters runoff and provides a central path for joggers and power-walkers. The design of Street W, promenade will be from the future pedestrian/bicycle bridge crossing the American River to a future extension of Bannon Street. The future redevelopment of the Twin Rivers housing community to a more urban housing typology anticipates raised residential row-house units lining the street, set back from the sidewalk with front steps to individual units. This will encourage strong activation and visual presence to the street.

This street section is also planned for the eastern segment of Richards Boulevard and could be extended eastward with future development into the East Industrial Area.



Figure 3.43. The existing low-density Twin Rivers Community will see future redevelopment that replaces the single family and two story townhomes with aggregated units and additional common park space centered on a new promenade street.

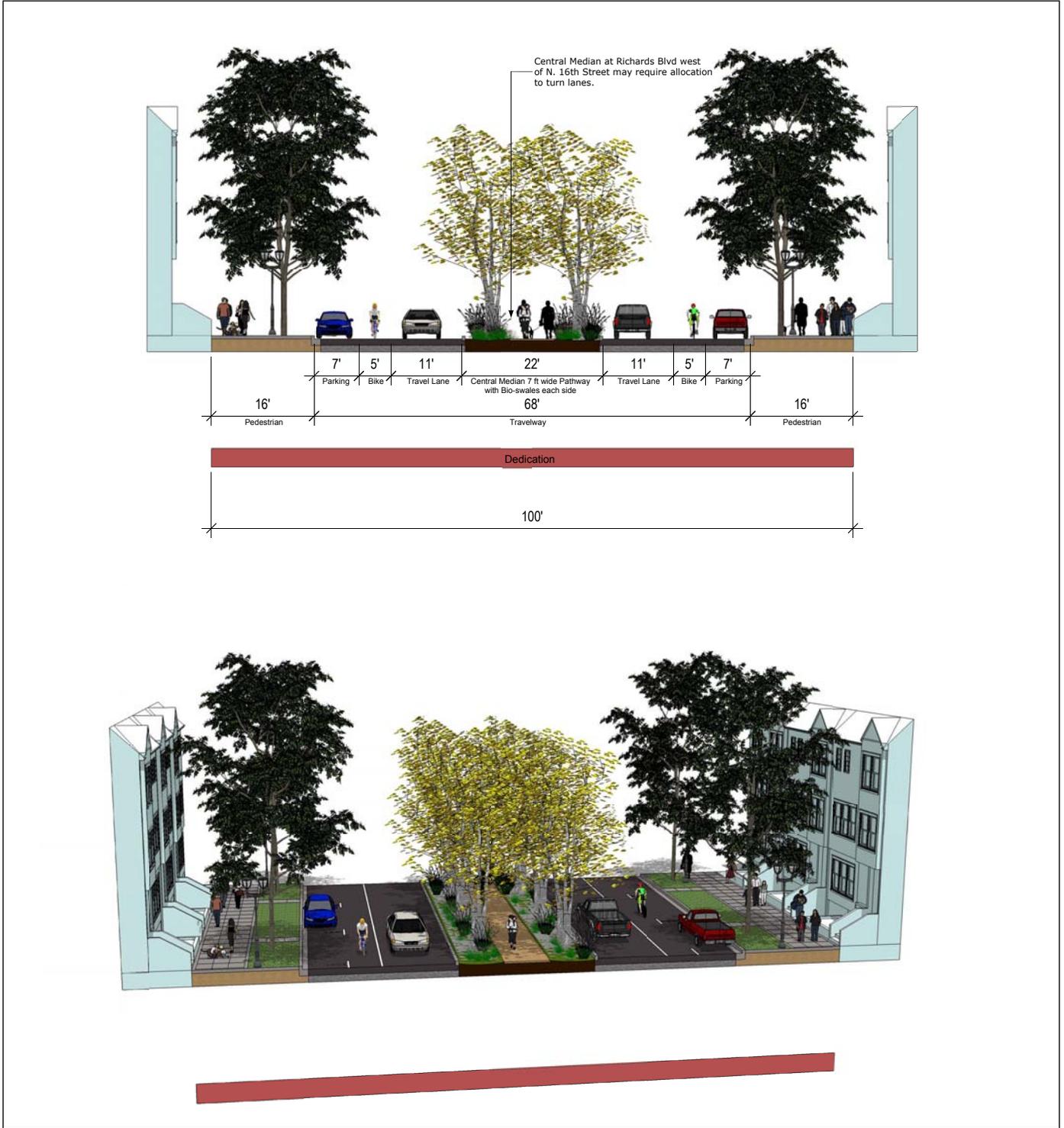


Figure 3.44. Bioswales provide valuable function to filter runoff and mitigate surges of runoff in peak rain events. They also provide aesthetic enhancement to the public way.



Figure 3.42. Top photos illustrate rowhouse type housing with front porches and steps fronting the street. Lower photo example of central median pedestrian promenade in Philadelphia, PA.

C. River District Streets



Section 17: Street W & Richards Boulevard East of 16th Street (similar)

Looking North

For large format drawings, refer to the River District Specific Plan

Transit Integrated Streets

This series of street sections are specific to Richards Boulevard and the segments of North 7th Street between North B Street and Richards Boulevard and Sequoia Pacific Boulevard at the proposed Sequoia Station on the Green Line. Richards Boulevard, as the main east-west conveyor of vehicular traffic through the District, will undergo a transformation from a predominantly single-use roadway to a more complete street for pedestrians, cyclists, and walk-in storefronts. With the future extension of Richards Boulevard east of 16th Street and close to the river, Richards Boulevard becomes a north cross link through the District. Additionally, Richards will see a future connecting line between the Blue Line on 12th Street to the Green Line at 7th and Richards.

Section 18: Richards Boulevard (12th - 16th)

This cross section of Richards Boulevard must accommodate large commute traffic volumes in the transition to Highway 160 between the two one-way couplets that connect Richards Boulevard. City Standard sidewalks of 16 feet for the Central City will provide sufficient width for pedestrian mobility in these segments, however, the intersection requirements will create wide street crossing distances and multiple dedicated turn lanes will be required to transition traffic.

Section 19: North 7th Street (North B Street to Richards Boulevard)

The segment of North 7th Street in this document has had travelway improvements put in place for light rail facilities and bike lanes; however, subsequent implementation of sidewalk improvements will require additional rights-of-way to accommodate adequate sidewalk widths. Where possible, central landscape medians are encouraged.

Section 20: Richards Boulevard (at Township 9 Transit Station)

Sited between North 5th Street and Judah Street, this street segment will comprise a multitude of transit modes and facilities. Flanking the north side of Richards Blvd, the Regional Transit Township 9 light rail station will reserve a



Figure 3.45. The Township 9 Station on the north side of Richards Boulevard will accommodate drop-off and pick-up in a turnout lane at the center of the station (Vrilakas Architects).

C. River District Streets

drop-off lane for passengers to the station along with bike lanes on both sides of the boulevard.

The south side of Richards Boulevard improvements will implement parallel parking and bike lanes with sidewalks scaled for pedestrian retail and support service pedestrian needs.

The central median shall be designed for water quality filtration media and planted with high-crown trees. Turn pockets will be kept to minimum lengths in order to maximize the median lengths.

Section 21: Richards Boulevard (Sequoia Pacific to Bercut Street)

The segment between Richards Boulevard interchange and Sequoia Pacific is subject to the anticipated roadway improvements for the interchange at Interstate 5 to accommodate future needs. The intention is to maximize pedestrian connectivity through the interchange to connect pedestrians and cyclists in the Jibboom Area with improved sidewalks and lighting and Class II bike lanes. A minimum of seven lanes are planned for this segment, requiring the consideration of a pedestrian refuge island in the central median when improvements are designed.

Section 22: Sequoia Pacific Boulevard (at transit station)

This segment of Sequoia Pacific Boulevard is designed in anticipation of a future multimodal bridge spanning the American River as modeled in the SACOG (Sacramento Area Council of Governments) Metropolitan Transportation Plan 2035, adopted in 2008. This street section contains a 400 foot long transit station situated between two flanking streets. The station is designed for outboard boarding where one platform is contiguous with the public sidewalk and the west platform is screened from the travelway with pedestrian connections at each end and from a midway axial alignment with the Sequoia Promenade (Section 6). Two-way Class I bike lanes are aligned and separated on the west side of the street segment. Section B.5 of this Chapter outlines the desirability of a large open plaza to be incorporated in future private development



Figure 3.46. Light rail curb-side stations in downtown Portland, Oregon provide passenger amenities with generous sidewalk widths for passenger waiting and pedestrian thoroughway. Note projecting awnings from buildings that provide additional shelter for passengers.

on the east side of the station to establish a strong retail and pedestrian environment serving as a destination space.

Section 23: Richards Boulevard (North 7th Street to North 12th Street)

The future light rail line connector from North 12th Street to the Township 9 Station will flank the north side of the Richards travelway, leaving a 14 foot sidewalk to access storefronts along this artery. Bike lanes and a single aisle of parking on the south side of the street will transform Richards to a multi-modal street and facilitate new infill development fronting the boulevard.

Section 24: Richards Boulevard (Sequoia Pacific to Judah Street)

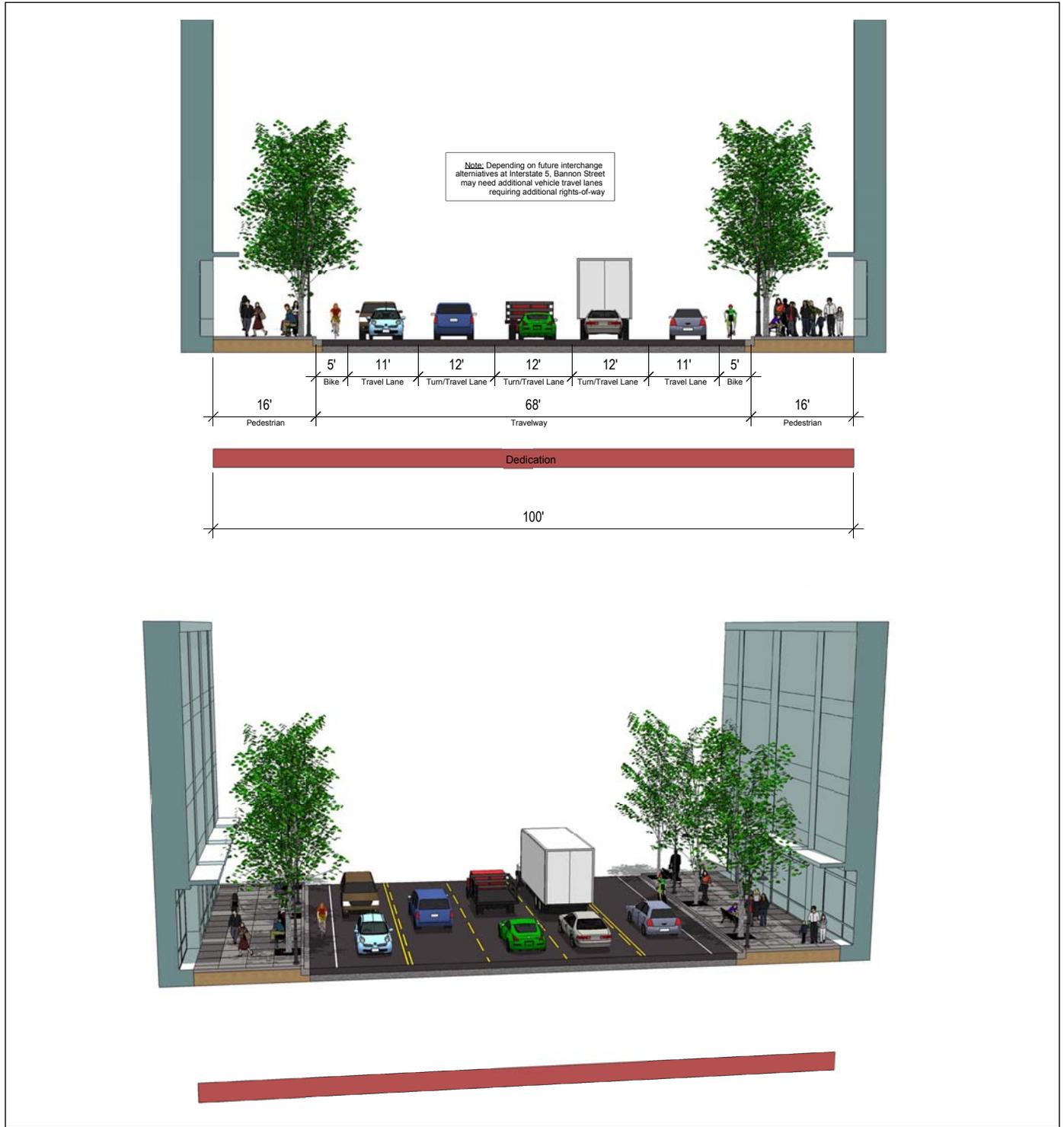
This segment is a transition from Section 20 at the Township 9 Light Rail Station. This section reserves additional rights-of-way for light rail facilities west of the station and implements storm runoff drainage area as required by the City Department of Utilities drainage model. This drainage area is design to also provide a pedestrian way for joggers and visually contains the scale of the overall street section with an alle` of redwood trees that are common in the Sequoia Boulevard Area.

On the south edge of Richards Boulevard, beginning with the first parcel east of the Greyhound site, the south face of the boulevard will be widened to implement parallel parking lanes and the Central City standard width sidewalks to activate the street frontage as far east as Dos Rios Street.



Figure 3.47. Downtown San Jose integrates light rail directly along the pedestrian way, separated with trees and light standards. This condition is similar to the Richards Boulevard section between North 7th Street and North 12th Street.

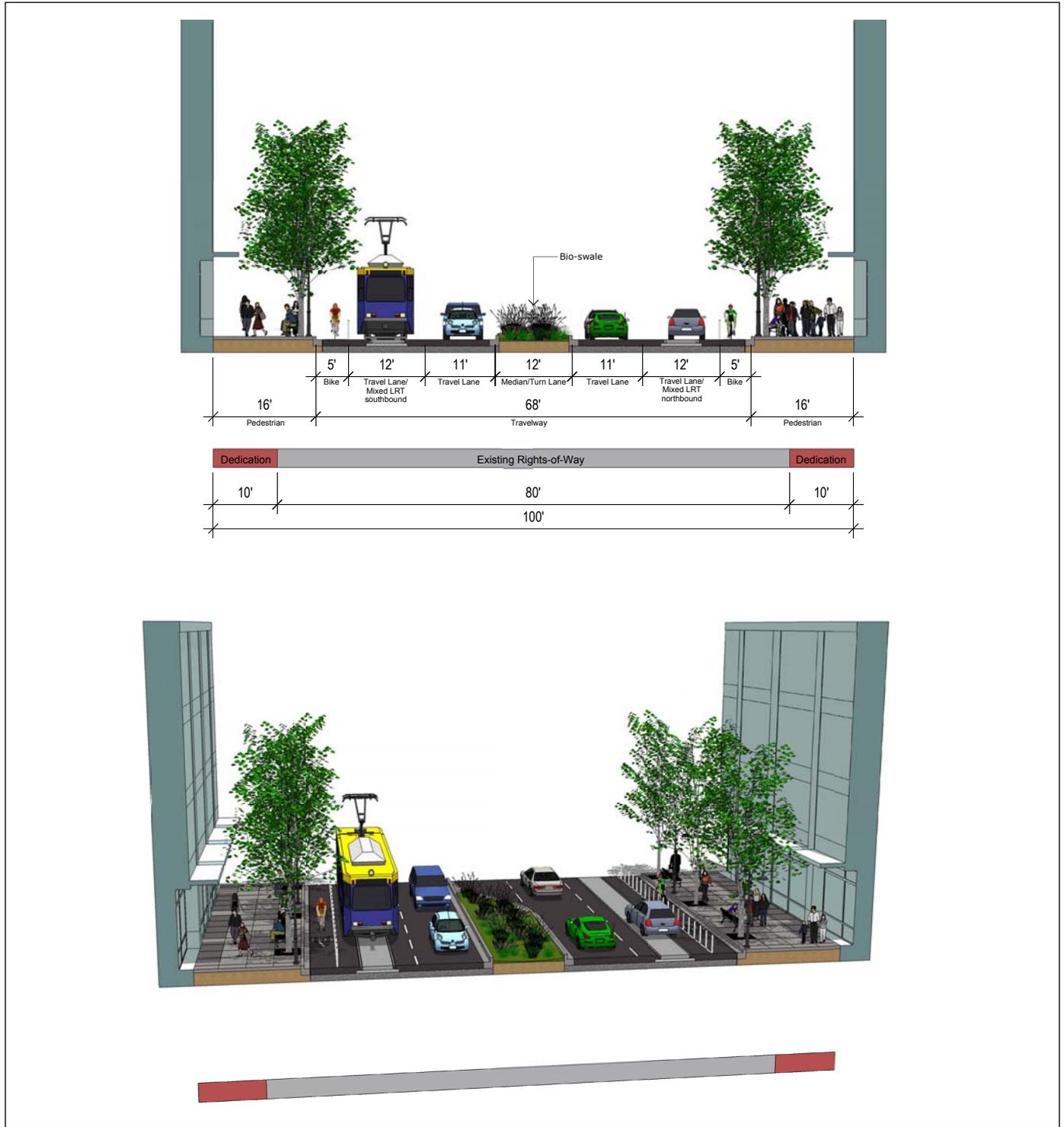
C. River District Streets



Section 18: Richards Boulevard (12th - 16th)
Non-Directional

For large format drawings, refer to the River District Specific Plan

C. River District Streets

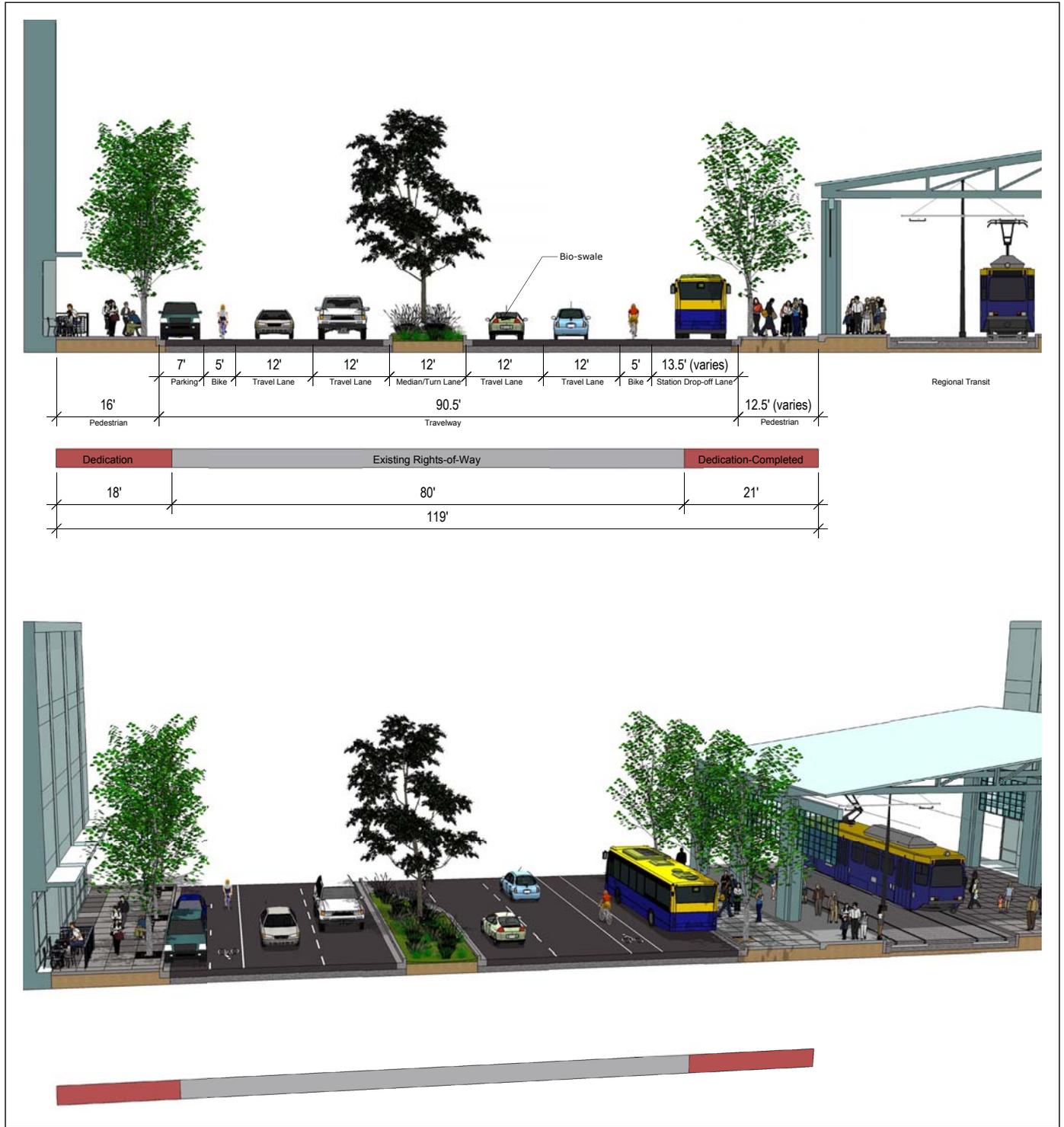


Section 19: North 7th Street (North B Street to Richards Boulevard)

Looking North

For large format drawings, refer to the River District Specific Plan

C. River District Streets

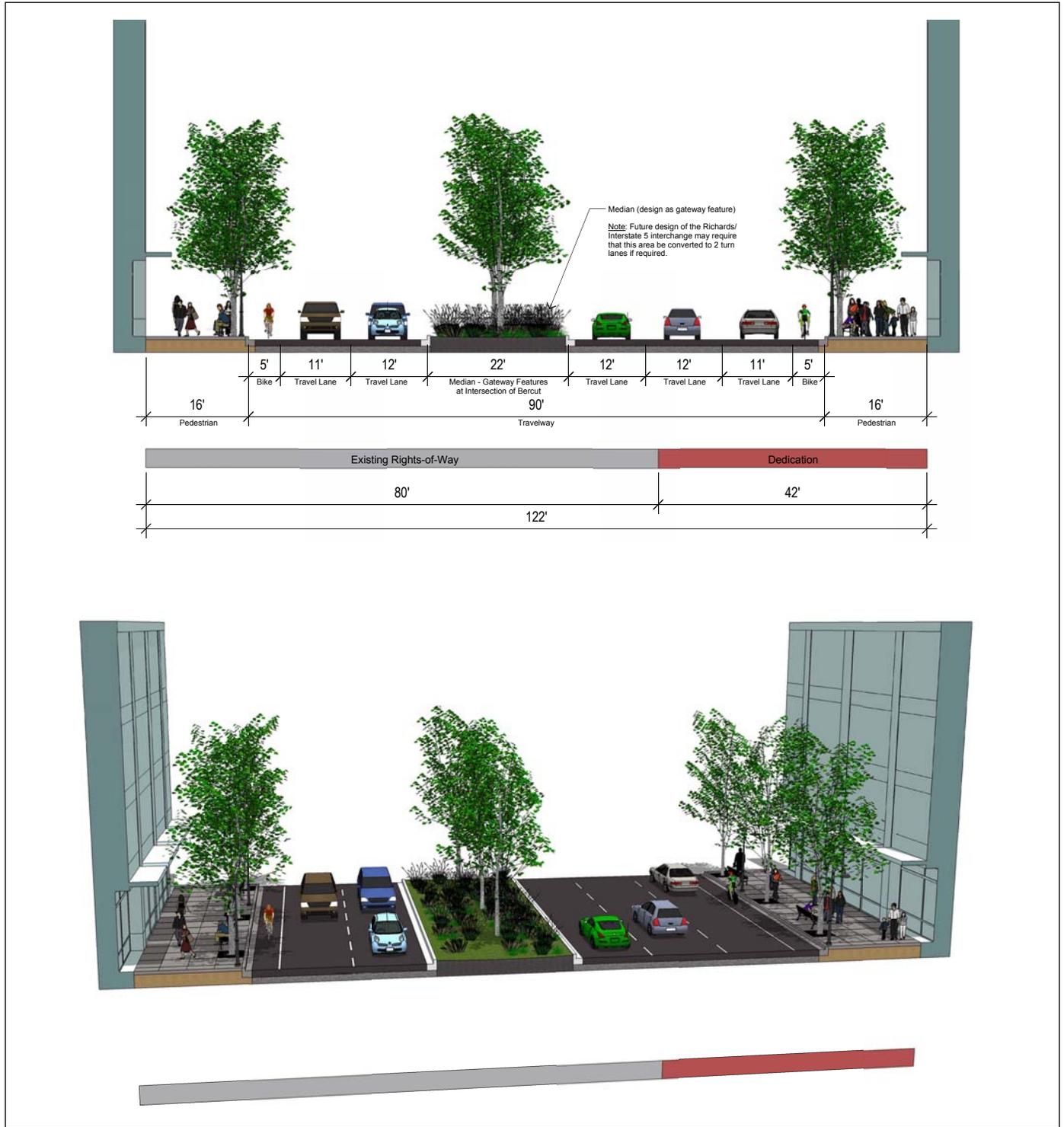


Section 20: Richards Boulevard (at Township 9 Transit Station)

Looking West

For large format drawings, refer to the River District Specific Plan

C. River District Streets

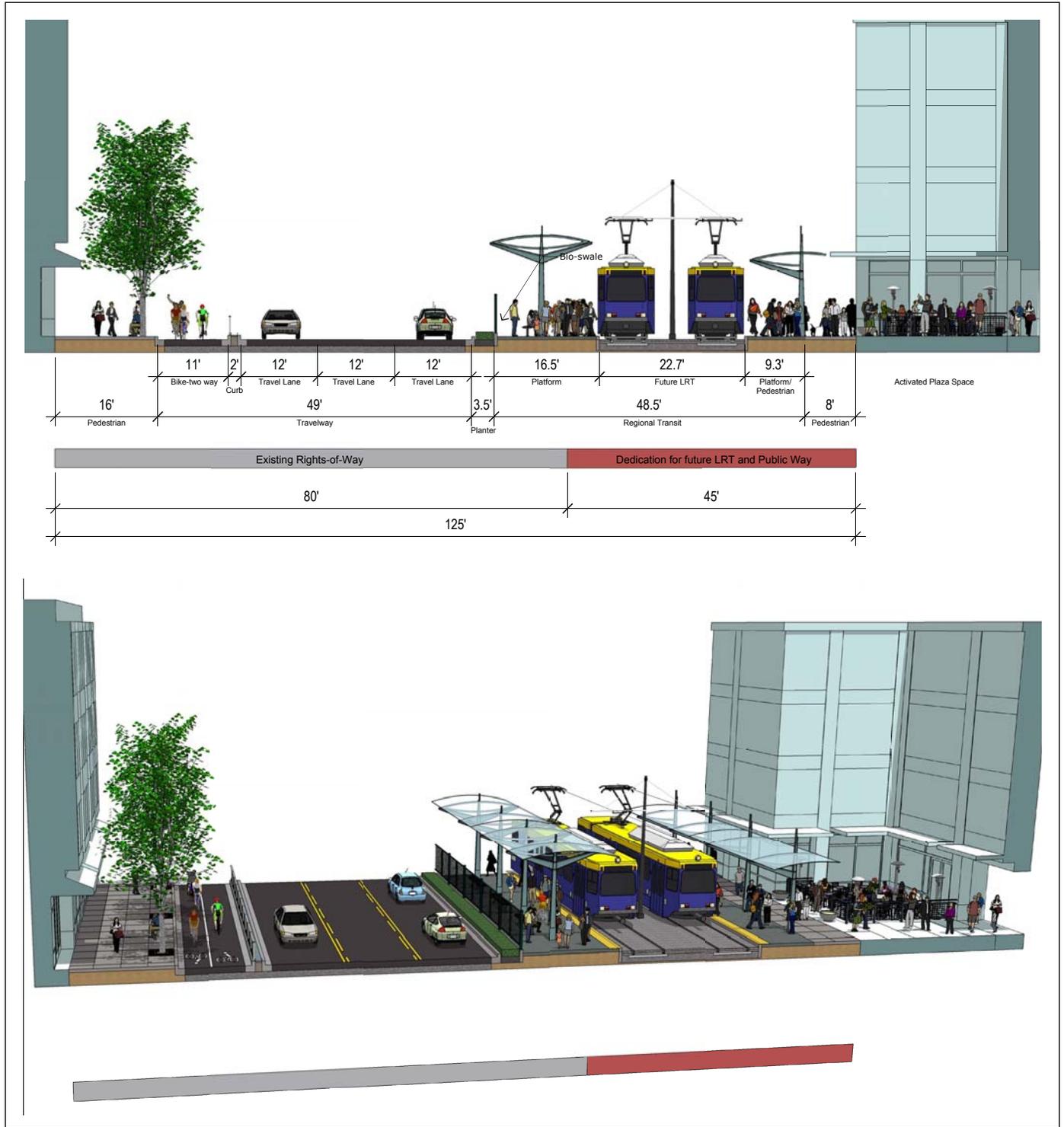


Section 21: Richards Boulevard (Sequoia Pacific to Bercut Street)

Looking West

For large format drawings, refer to the River District Specific Plan

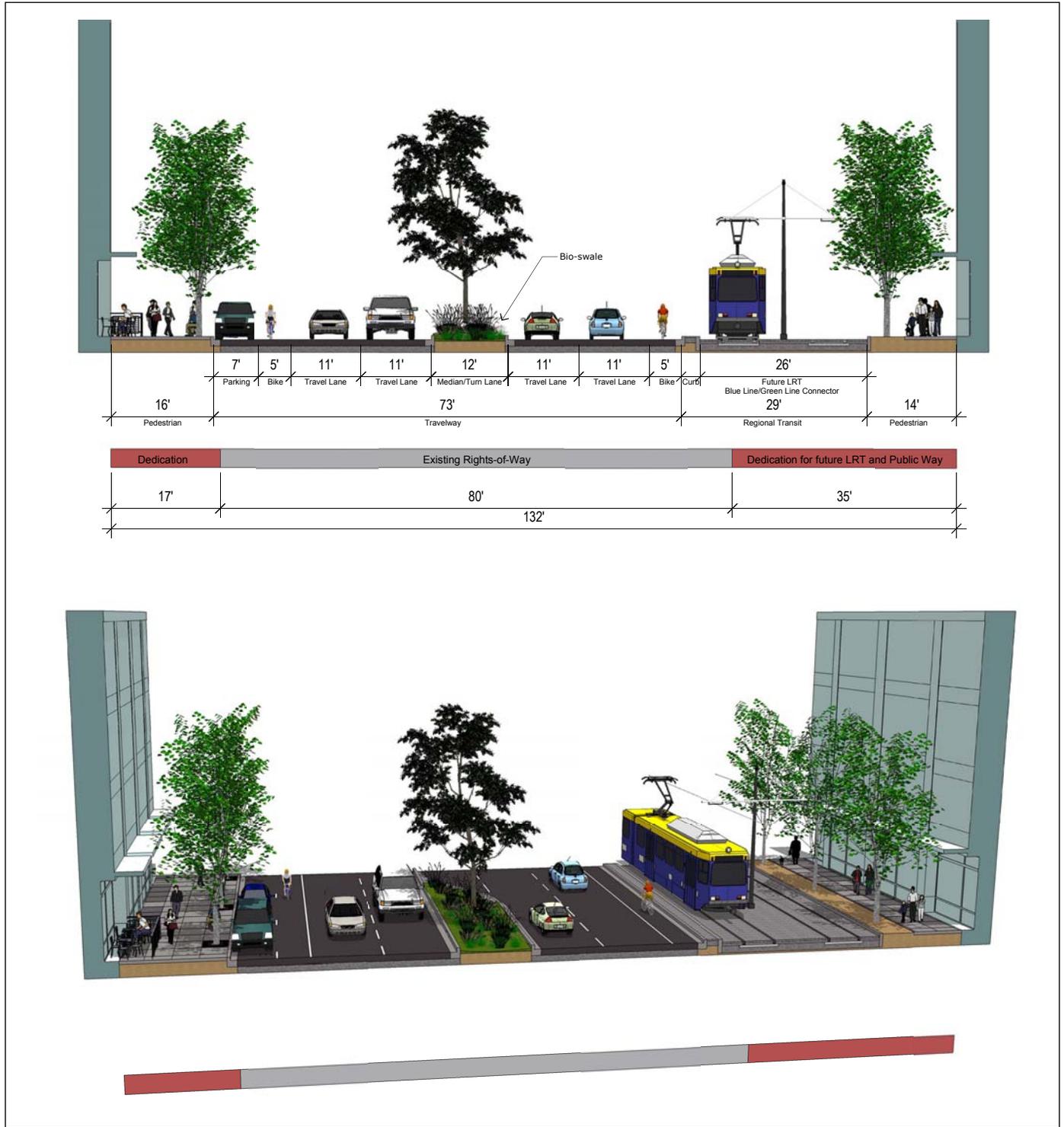
C. River District Streets



Section 22: Sequoia Pacific Boulevard (at transit station)
Looking North

For large format drawings, refer to the River District Specific Plan

C. River District Streets

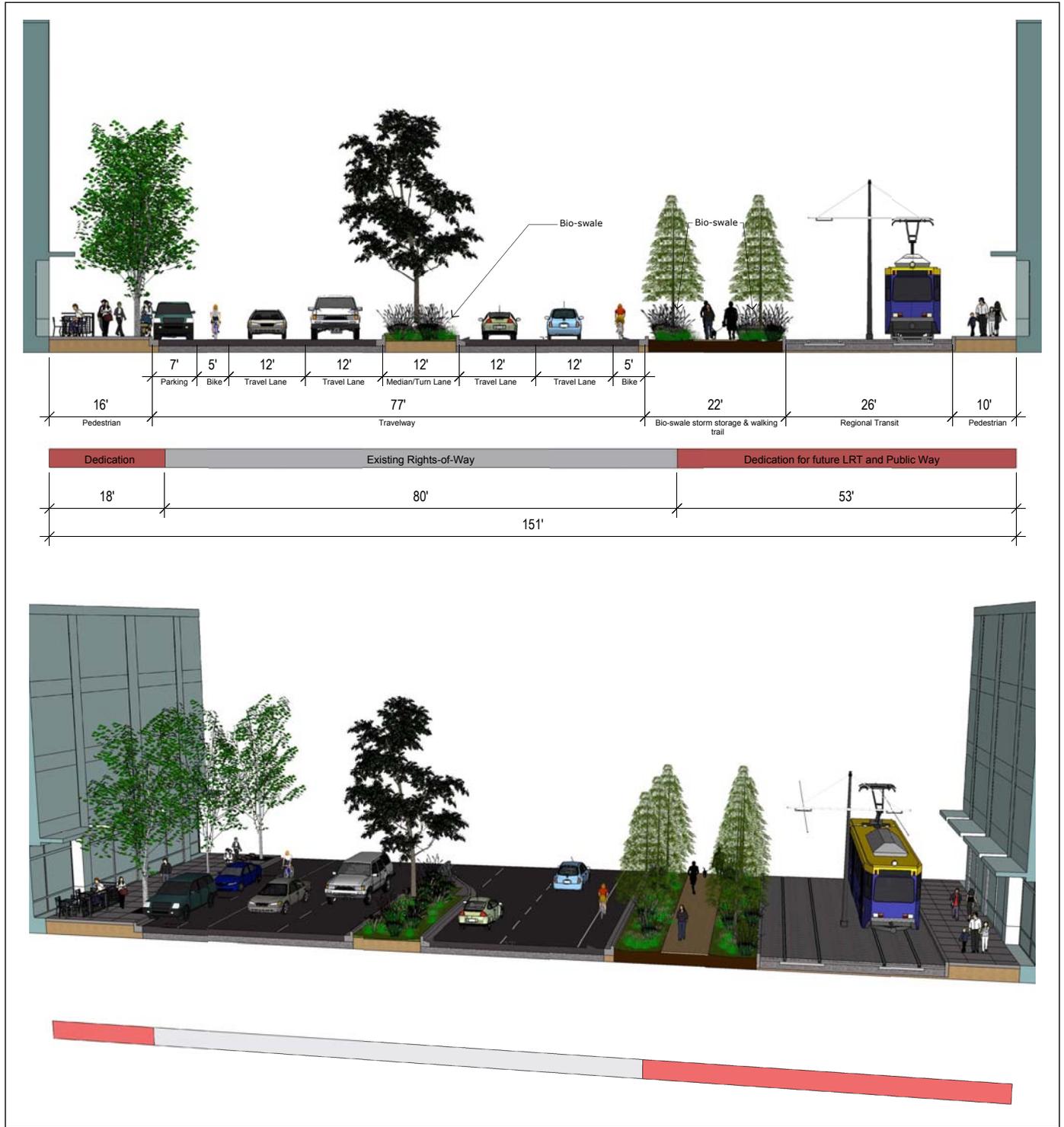


Section 23: Richards Boulevard (North 7th Street to North 12th Street)

Looking West

For large format drawings, refer to the River District Specific Plan

C. River District Streets



Section 24: Richards Boulevard (Sequoia Pacific to Judah Street)

Looking West

For large format drawings, refer to the River District Specific Plan

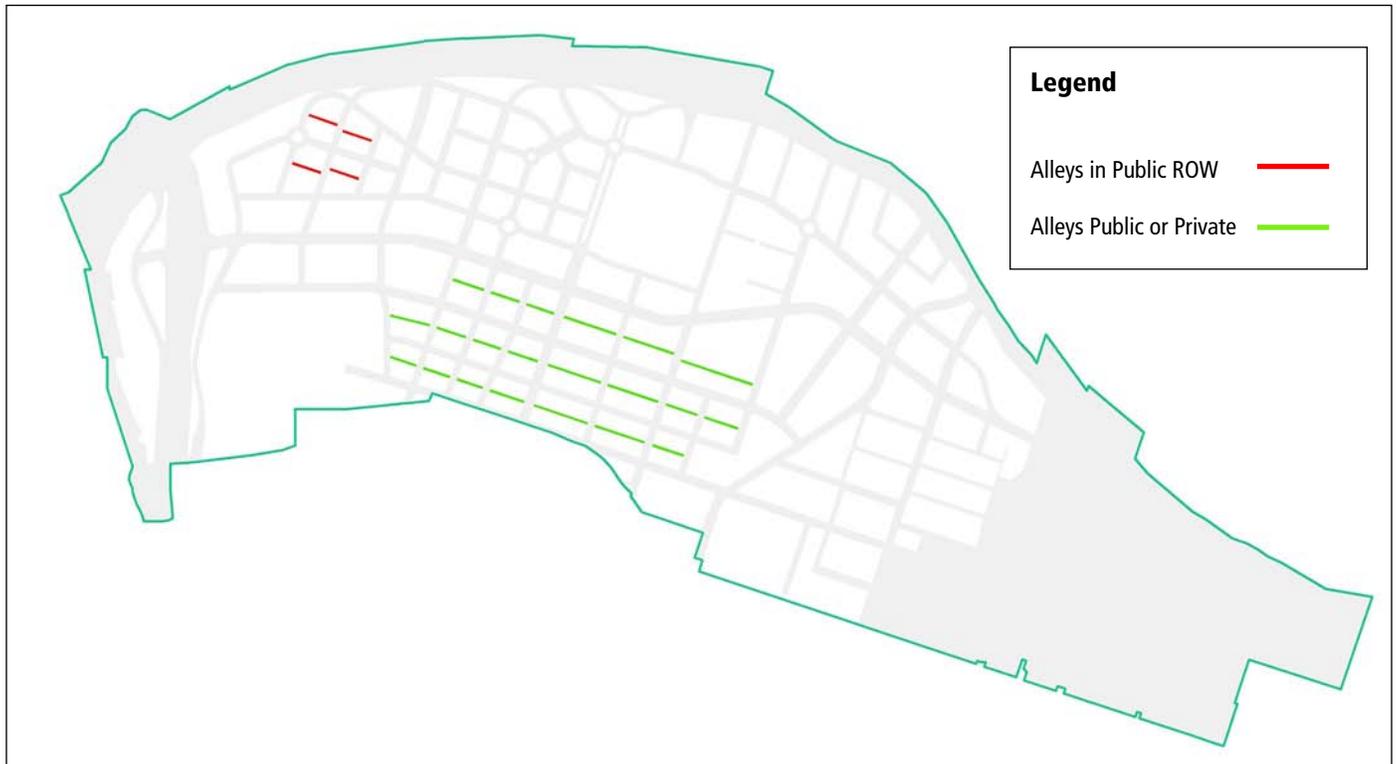
C. River District Streets

Alleys

Sacramento’s Central City has experienced an awakening to the economic and social value for multi-functioning alleys. The urban design plan for the River District holds the first opportunity to construct new alleys which can be designed for multiple functions, both as the needed commercial vehicular service ways and pedestrian public access accommodations to make these new alleys social and economic resources for the District.

Other areas in the Central City are constrained with existing buildout to the 20 foot rear alley easement and little accommodation for waste disposal onsite of the private realm, resulting in noxious trash dumpsters in the public way.

The River District has the opportunity with new constructed alleys to allow more flexibility in the use and requirements for multi-modal access. The ability to construct alleys with new development areas allows the ability to underground all electrical and communication utilities, thereby eliminating the need for setbacks for utility clearances along transmission lines and new development can accommodate waste and recycling facilities on-site.



C. River District Streets

Alleys: Commerical Service Alleys

PRINCIPLE: Commercial service alleys in the River District shall be designed for shared use as building service and vehicular access with accomodation for pedestrian-oriented uses.

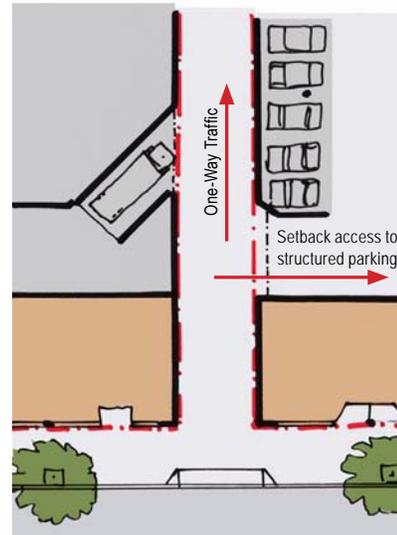
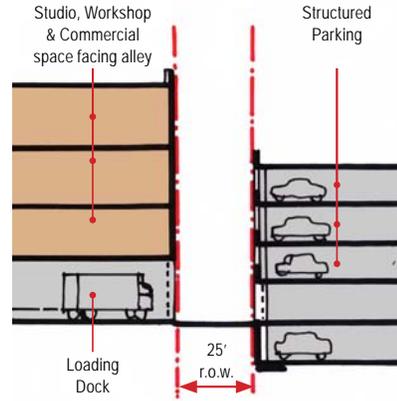
Alleys in commercial districts should be used to provide access to parking and service areas for commercial buildings, reducing the need for garage entrances and curb cuts along street frontages.

The accompanying drawings show two potential conditions for a commercial alley. The left side is an example of a loading dock and on the right a structured parking garage.

Recommendations

1. All loading and service areas must be screened and gated for security, and should be on-parcel, keeping the right-of-way (r.o.w.) clear.
2. Trash bins and skips shall be screened from view at all times and may not intrude into the alley rights-of-way (r.o.w.).
3. Angled loading docks are recommended for large vehicle turning.
4. Alleys should have one-way vehicle circulation.
5. Sidewalks are not required in alleys.
6. Pedestrian oriented uses should wrap from the street frontage onto the alley whenever feasible.

Street Type: Alley



Alley in Central Core provides multi-use opportunities

C. River District Streets

Alleys: Shared-Use Alleys

PRINCIPLE: Alleys can function as shared-use environments that are primarily pedestrian in character, but where cars are tolerated.

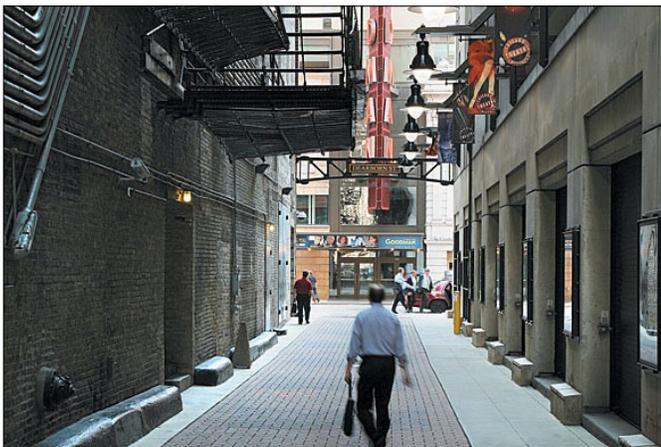
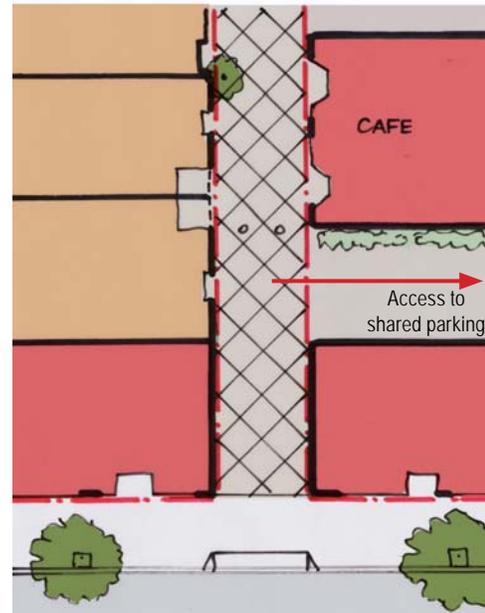
At locations in the River District where urban life and intensity are high, alleys can function as shared-use environments that are more pedestrian than vehicular in character. Similar to Dutch “woonerfs,” these alleys are designed as shared environments—primarily for pedestrian activity and children’s play areas, but also accommodating limited car use and access. The detailing and materials used in the alley right-of-way should clearly signify the space as more “paseo” than “street.” These shared-use alleys can accommodate outdoor cafés and vendors.

The accompanying drawings show a mid-block alley with cafes and studio spaces on either side. Removable bollards define the end of the vehicle access zone. Garage access would need to be from the rear of any buildings facing the alley.

Recommendations

1. Trash bins and skips must be screened from view at all times and may not intrude into the alley right of way.
2. Alleys should have one-way vehicle circulation.
3. Alleys should have paving materials that are conducive for both vehicular and pedestrian activity. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.

Street Type: Alley



Alleys provide a unique scale and visual interest to the street network



Dutch “woonerf”

C. River District Streets

Alleys: Commercial District Pedestrian Alleys

PRINCIPLE: Some alleys in the commercial district shall be redesigned as retail-lined passage areas of intense pedestrian use and activity—with only limited service and emergency vehicle use.

In the River District, there is an opportunity for some alleys in the commercial district to be developed as pedestrian passages, suitable for retail activity. They should support mid-block pedestrian paths and the potential for small-scale retail activity such as cafes, bars and coffee shops with outdoor seating. Limited vehicle and service activities would be allowed during off-peak hours. These alleys must provide access for emergency vehicles and not exceed ADA cross slope maximums.

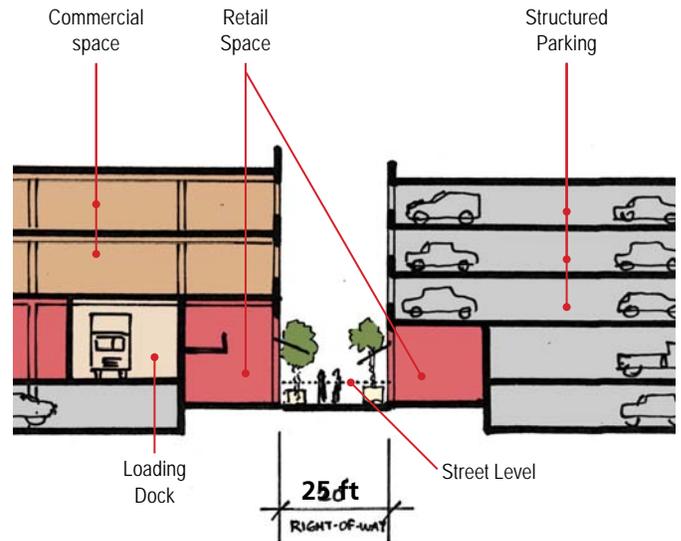
The accompanying drawings at right shows two potential conditions for a commercial district pedestrian alley:

The left side of the drawings illustrate a commercial building, with ground floor retail at the corner and a service/loading area facing the adjoining numbered-street.

The right side of the drawings illustrate commercial buildings with upper level and basement parking and the potential of a ground level retail/bar or café space facing the alley. Unlike commercial service alleys, garage access would need to be from the north-south streets only in order to avoid conflict with pedestrian activities on the alley. In some instances where strong north/south vehicular movement occurs, garage access from the east-west streets may be allowed.

In both cases, in order to minimize the impact of loading and service areas and garage entrances facing the street, the maximum width of opening would be limited to 24 feet. Three curb cuts would be the maximum allowed per

Street Type: Alley



Chicago's commercial district alley with permeable paving.



Hardware Lane, Melbourne. Retail uses front onto this narrow pedestrian lane, a model for the redevelopment of Sacramento's central city alleys.

C. River District Streets

Alleys: Commercial District Pedestrian Alleys (continued)

side of block.

The alley should be paved as a pedestrian space with structural load-bearing unit pavers from building face to building face without curbs. Area drains should be located in the center of the alley.

Recommendations

1. All loading and service areas must be screened and gated for security, and should be on-parcel, keeping the right-of-way (r.o.w.) clear.
2. Sidewalks and curbs are not recommended, unless verified per current regulations.
3. Alleys should have paving materials that are conducive to both pedestrian and vehicular activity, e.g. unit pavers, from building face to building face. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.
4. Area drains should be located in the center of the alley.
5. The maximum width of opening of loading/service areas and garage entrances facing the alley/street should be limited to 24 feet, with a maximum of three curb cuts per side of block.
6. The alley should have retractable bollards to prevent service vehicle access during hours of retail/restaurant use.
7. Cross-slopes of paving should be ADA compliant
8. Garbage locations and collection should be coordinated to eliminate nuisances of smell and unsightliness.
9. Trash bins must be screened from view at all times and may not intrude into the alley thoroughway.



San Francisco's Beldon Place. Alley that is restricted to pedestrian activity during peak / business hours.



Residential and commercial office enjoy alley access with pedestrian amenities. Note light bridge connection to parking in background.



Shallow depth cafe can be incorporated into parking garage.

C. River District Streets

Alleys: Residential District Alleys

PRINCIPLE: Alleys in residential districts should perform as minor streets, providing a traffic-calmed, pedestrian scaled environment providing frontage access to residential units and/or vehicle access to garages and service areas.

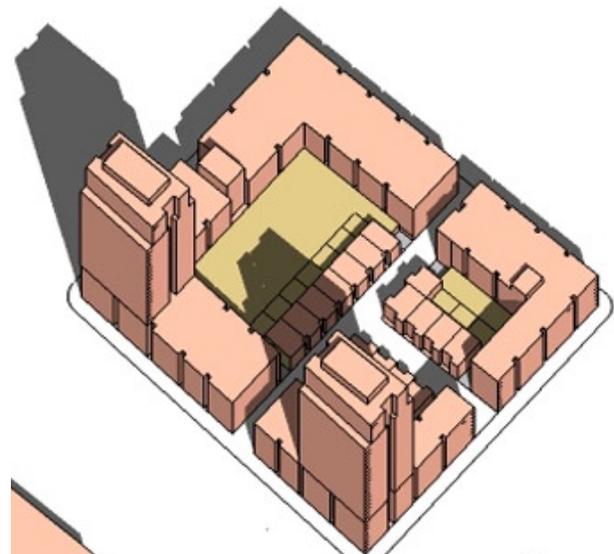
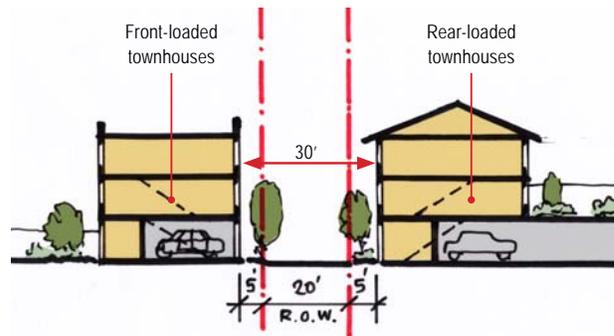
In residential districts, alleys can perform the functions of a minor street, providing a pedestrian scaled environment for both secondary residential units and mid-block facing units. In addition, alleys can provide a traffic-calmed environment for vehicle access to garages and service areas.

The accompanying drawings show two potential conditions for a residential alley:

The left side of the drawings illustrate front-loaded townhouses with their garages facing the alley. The townhouses are required to be set back 5 feet from the alley right-of-way in order to permit adequate maneuvering space for vehicles entering individual garages.

The right side of the drawings illustrate rear-loaded townhouses with their garages accessed from a shared alley. Townhouses may also face the alley with their open space on the second level above the podium level. They require a 5 foot setback in order to allow adequate daylighting to both sides of the alley and to allow a planting zone in the setback.

Street Type: Alley



Urban blocks with variety and scale of residential development conducive to shared use alleys.

C. River District Streets

Alleys: Residential District Alleys (continued)

Recommendations

1. Residential development along alleys should be set back 5' from the r.o.w., to facilitate the provision of adequate daylighting, landscaping, and privacy.
2. Alleys should have paving materials that are conducive for both vehicular and pedestrian activity. Rougher paving texture should be used to slow vehicle speeds. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.
3. Trash bins must be screened from view and may not intrude into the alley right of way.
4. Sidewalks are not necessary. However, a 4-inch curb can be used to delineate the pedestrian realm.
5. Cross-slopes of paving and surface finishes should be ADA compliant.
6. Irrigated landscape elements should be encouraged within private property adjacent to alley right-of-way.
7. Parcels with units extending from street to alley should have their vehicular access from the alley, in order to minimize the number of curb-cuts along the street and reduce conflicts in the pedestrian zone.



Townhouses front alley near 10th and T Streets



Japanese "shared street"



As a component of residential alleys, retractable bollards can limit vehicular access to alleys with electronic coding

C. River District Streets

2. On-Street Parking

PRINCIPLE: Provide on-street parking as a means of enhancing access to adjacent uses, buffering pedestrians from moving traffic, and increasing activity on the street.

Rationale:

On-street parking is an important component of a successful River District that offers benefits to visitors, merchants, and residents, because it:

- A. Supports local economic activity of merchants by providing convenient customer access to storefronts;
- B. Supports residential neighborhoods by providing convenient guest parking;
- C. Accommodates on-street loading and unloading of delivery trucks to local commercial retail uses and residential uses;
- D. Reduces development costs for small businesses by decreasing demand for onsite parking;
- E. Enhances pedestrian comfort by providing a physical buffer between public sidewalks and moving vehicular traffic;
- F. Calms (i.e., slows) traffic by alerting motorists that driving speeds should be reduced, in response to increased street-side activity related to on-street parking (e.g., vehicle turning movements, opening car doors, etc.);
- G. Enhances pedestrian activity on the street by creating foot traffic between parked cars and commercial destinations.

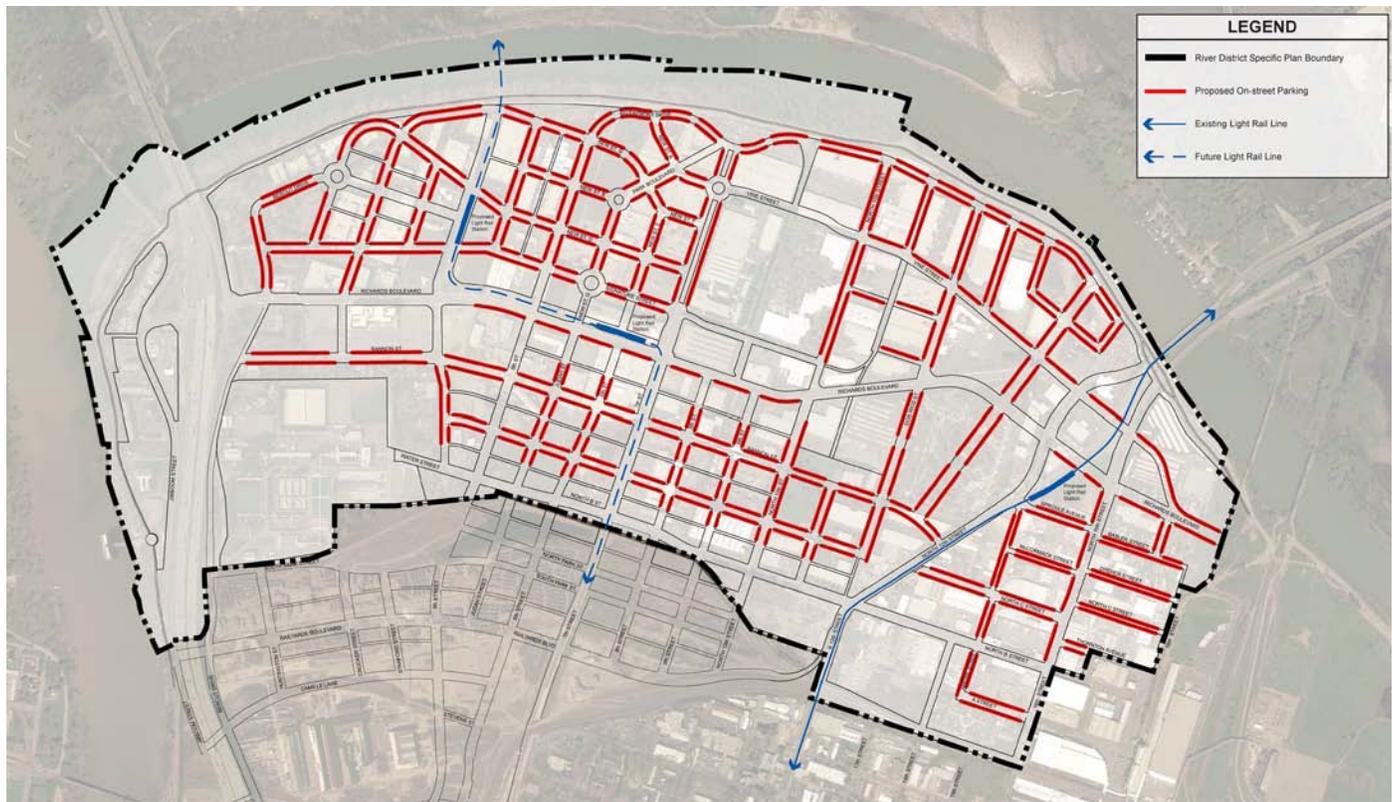


Diagram of anticipated street parking within the River District Specific Plan.

C. River District Streets

2. On-Street Parking (continued)

Guidelines

1. On-street Parking. To the extent feasible, on-street parking should be provided on streets to support adjacent uses and enhance pedestrian safety and activity.
2. Curb Cuts. Curb cuts should be avoided to the extent possible. The use of alleys to access on-site parking should be promoted where not in conflict with activated pedestrian alleys, in order to maximize the curb side available for on-street parking, For options, see Chapter 3. B. Travelway Realm, Alleys: Commercial District pedestrian Alleys.
3. Intermittent Parking Zones. Where traffic capacity needs to be balanced with on-street parking, consider using the curb lane for parking during off-peak periods and for traffic during peak periods. This strategy may allow for the narrowing of some arterial and collector street cross-sections (i.e., lane removal) where it is desirable to provide wider pedestrian zones and off-peak traffic volumes do not require three travel lanes.
4. Parking Orientation. On-street parking should be primarily parallel parking on high-volume arterial and collector streets. Angled parking may be used on lower-speed and lower-volume commercially-oriented collector and local streets, particularly on retail main streets.
5. Back-in Angled Parking. Back-in angled parking is generally more favorable for bicyclists, easier for loading of packages, and can provide a traffic-calming effect. Reverse (back-in) angled parking requires a wider edge zone in the roadside due to the longer overhang at the rear of most vehicles. This extra width can be compensated by the narrow travel lane needed adjacent to parking for maneuvering.
6. Bicycles and Angled Parking. Avoid marking bicycle lanes in conjunction with front-in angled parking. Rather, provide a striped area, without bike lane markings, six feet in width between angled parking and the travel lane on streets heavily used by bicyclists. Bicycle lane markings may be used in conjunc-



Back-in angled parking provides for convenient loading and unloading and is safer for bicyclists (28th St. between R St. and U St.)



Parallel parking works better on narrower streets.

- tion with back-in angled parking
7. Metered Parking. Use metered parking to provide reasonable short-term parking for retail customers and visitors while discouraging long-term resident and employee parking.
8. Parking Space Widths. Parking space widths should be dependent on the land use context and thoroughfare type, and the anticipated frequency of parking turnover. The preferred width of a parallel on-street parking lane is 7 feet.
9. Taxi-Cab Stands. Locate taxi-cab curb space in strategic high-use areas (e.g. hotels, convention center, Greyhound Station). Taxi queue areas should have

C. River District Streets

.....

synergy with transit services, wherever possible.

10. Motorcycle and Scooter Parking. Convenient on-street motorcycle parking should be provided to encourage motorcycle and scooter use. Ample on-street motorcycle and scooter parking should be provided within the River District in prominent, well-lit locations as close as possible to main entrances of buildings, Motorcycle parking bays should be striped perpendicular to the sidewalk in the on-street vehicular parking zone.

C. River District Streets

3. Intersections

PRINCIPLE: Design streets to accommodate safe and convenient pedestrian crossings.

Rationale

Street intersections are the places in the River District where the Travelway and Pedestrian Realms overlap. As these areas are shared by pedestrian, vehicular and in many areas, bicycle traffic, intersections have the potential for conflict. In order to reduce potential conflict and ensure pedestrian safety, it is important that pedestrian crossings be designed as an integral and critical component of the street system that accommodates vehicular, bicycle and pedestrian circulation.

The design of pedestrian crossings should announce to motorists the potential presence of pedestrians in the travelway. Free movement of pedestrians from block to block is an essential element of all successful urban areas and should be supported by the design of safe and attractive pedestrian crossings. Pedestrian crossings are sectors of the public right-of-way that are intended to be shared by vehicles and pedestrians, and need to be designed as such.

Refer also to Central City Urban Design Guidelines, Section 3, Central Core, and the Sacramento Pedestrian Master Plan (2006) and its appendices for further guidance. Any crosswalk application should comply with the City's Pedestrian Safety Guidelines.



Provide curb ramps at all intersections.



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



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



Traffic calming measures, such as crosswalk refuges, make streets more pedestrian friendly.

C. River District Streets

3. Protected View Corridors

PRINCIPLE: View corridors and spatial continuity of streets should be protected by avoiding obstructions over the public rights-of-way.

Rationale

Sacramento, with its beautiful landscaping and landmark buildings, offers a variety of views and vistas. Protecting views of landmarks and the spatial continuity of streets is essential. Second level walkways, construction over streets, and lowering of roadways damage streets in a variety of ways. Besides disturbing retail continuity by not supporting street-level activities, they block views that make Sacramento unique among California cities.

Guidelines

1. Second level pedestrian bridges across public streets should not be allowed unless for special circumstances where high pedestrian use can be demonstrated to be in conflict with the traffic flow patterns that would endanger public safety.
2. With the exception of public alleys, construction or intrusion of private or public development over public streets and rights-of-way should not be permitted.
3. Development over public alleys shall be limited to 15 percent of the length of the alley.



When necessitated, pedestrian bridgeways that are open with light covering allow through views and help maintain openness of the public realm are preferable solutions for overhead crossings.



An example of an enclosed pedestrian bridge over a public plaza that has a high ratio of glass and fits into the architectural compositions of adjacent buildings.

D. Pedestrian Realm

The Pedestrian Realm guidelines are intended to promote more walkability 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.” These guidelines implement the recommendations of these two pedestrian documents.

The guidelines focus on improving the attractiveness and effectiveness of pedestrian networks 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.

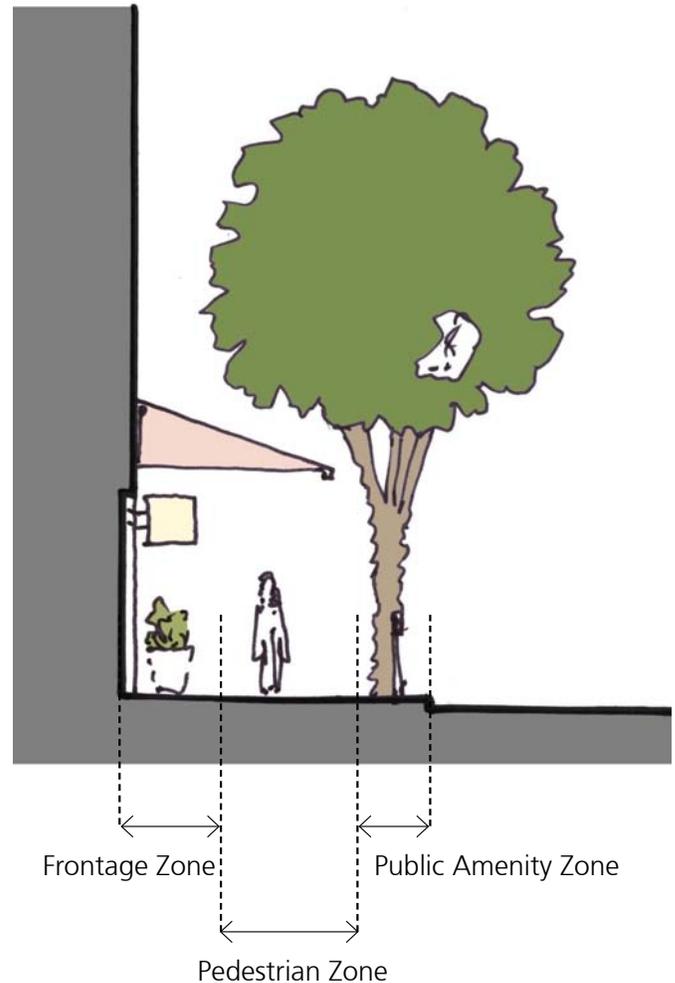
The pedestrian realm serves several functions—circulation facility, social space, and amenity zone—and must accommodate numerous features and facilities to support these functions. For purposes of these guidelines, the pedestrian realm has been subdivided into three zones: the pedestrian zone, the amenity 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.

The three zones generally occur on both sides of the street and consist of the following:

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

Pedestrian Realm



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

D. Pedestrian Realm - (continued)

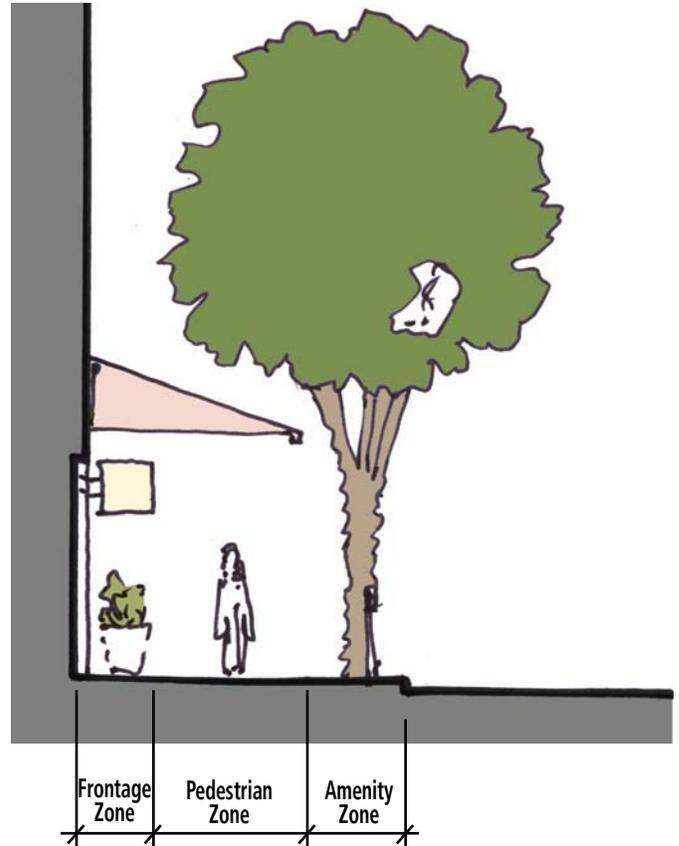
elements such as light poles, fire hydrants and transit facilities, and be wide enough to accommodate projected volumes of pedestrian traffic.

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.



Sidewalks with adequate width accommodate vendors and maintain clear pedestrian zone for unimpeded pedestrian mobility.



Functional Zones are clearly delineated in this new sidewalk installation.

C. Pedestrian Realm

D.1. Sidewalks

PRINCIPLE: Dedicate adequate space within the public street right-of-way to allow the sidewalk to 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).

Rationale

Sidewalks are the primary areas within the public street right-of-way reserved specifically for pedestrian use. They also serve as the interface between 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 River District as a successful commercial and cultural center and vibrant residential neighborhood.

Guidelines

General Functional Requirements

1. Sidewalk Widths. Sidewalk widths shall 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 Central City, high activity areas (such as transit stops) should have sidewalk widths of 20 feet or more. Sidewalk widths in the River District should not be less than 8 feet unless existing right-of-way preclude them.
2. 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.
3. 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.

Pedestrian Zone

1. 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.
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.
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.

Frontage Zone

1. Private Furnishings. Private furnishings permitted in the frontage zone may include seating and tables,



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

D.1. Sidewalks (continued)

- merchandise displays, planters, art, and portable signage as allowed under the City's Sign Ordinance (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, 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.
 7. **Permitting.** All private use of the frontage zone should be required to obtain an encroachment permit and be maintained to established standards.
 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. In all cases, a direct path should be provided for pedestrians and the disabled.
10. **Plumbing and Mechanical Utilities of Buildings.** Buildings should be designed to minimize the occurrence and mitigate the visual impact of plumbing and



A well-used Frontage Zone brings shop wares onto the sidewalk. Dan Burden photo.

mechanical utilities within the Public Realm.

Amenity Zone

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

D.1. Sidewalks (continued)

- 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 and News Racks. In order to reduce clutter within the amenity zone, facilitate on-street parking, the City may install multi-space and pay-and-display parking meters.
 6. Setback from Curb. To the degree feasible, elements within the Public Amenity Zone 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, and should have a standardized color where possible.
 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. Undergrounding projects should maximize space available for street tree planting.
 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 and utility boxes contrib-

ute to a sense of community identity, and reflect and strengthen the local character.

10. Stormwater Management. The use of permeable or porous pavement and landscape designed to treat and attenuate stormwater flow in the amenity zone is encouraged whenever feasible as a means of reducing stormwater runoff rates and volumes.
11. ADA Clearance at Bus Stops. Maintain 5 foot. x 8 foot. clear areas at bus stops for boarding of wheelchair users.
12. Tree Planting. See City tree planting guidelines for additional information and guidance on street tree planting.



Amenities such as comfortable benches, trees and planting compliment the shopping experience. Dan Burden photo.



Urban stormwater management, in Amenity Zone, such as these planters and permeable pavement attenuate and treat stormwater flow.

C. Pedestrian Realm

D.2. Sidewalk 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.

Rationale

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 appears as 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 River District 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, as highlighted herein.



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, salt etched or light sand-blasted, finish.
2. **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. The Pedestrian Street in the Sequoia Area is an exception.
3. **Decorative Paving -- Allowances.** Limited decorative paving or elements will be allowed within the frontage and walkway zones as long as such improvements:
 - » Are less than 16 square feet in area (i.e., less than one 4' x 4' pavement module);
 - » 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
 - » Have design review approval.
4. **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 2-foot grid.
5. **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).
6. **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.
7. **Sustainable Materials.** Using quality materials and installation to ensure long use and avoid fre-

C. Pedestrian Realm

D.2. Sidewalk Paving (continued)

quent replacement is the most sustainable practice. 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.

- 8. 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 and increasing water volume to the root zone of street trees.
- 9. Park Circute Streets. The River District Specific Plan designates particular streets which form a circuit of park linkages connecting parks in the River District and the Railyards. These streets should be denoted with graphic indicators which indicate a particular pathway. (See examples on this page).
- 10. River Streets. Similar to the Park Loop Streets, directional indicators for streets which lead directly to the river should be incorporated into the sidewalk patterning. See diagram in B. - River District Streets.



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



Sometimes the sidewalk zones are clearly and formally defined.



Sidewalk graphic form along West El Camino in South Natomas.



The Freedom Trail in Boston is demarcated in the paving with a line of brick pavers. A similar paving system can be implemented to denote routes for Park Links and River Streets

C. Pedestrian Realm

D.3.a Street Furnishings and Amenities - General Guidelines

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

Rationale

As the “living room” for community life in the River District, 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, rest rooms, 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 River District.

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 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 River District.
- 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 River District.
- 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 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.

C. Pedestrian Realm

D.3.b - Street Furnishings and Amenities - Bicycle Racks

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

Rationale

Bicycle use is a convenient, non-polluting means of transportation that can play a significant role in creating a less automobile-dependent River District. 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 aisle of the street, in most instances bicycle parking should be located within the public amenity zone of the sidewalk.

Bicycles racks, 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 24' to 30' 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 (e.g. light rail stations). 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



Expanded sidewalk with bicycle parking.

C. Pedestrian Realm

D.3.b- Street Furnishings and Amenities - Bicycle Racks (continued)

are clearly visible to cyclists from the street and from adjoining buildings and public spaces. Placement in view of doors 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.
9. Bicycle Cargo. At destinations where people may anticipate carrying more items, such as public libraries, grocery stores and train stations, consider space needs for recumbent bicycles and bikes with trailers.



Prominently located bicycle racks on sidewalk bulb-out.



Bicycle racks can serve as an attractive design feature.



Bicycle racks as sculptural element.

C. Pedestrian Realm

D.3.c Street Furnishings and Amenities - Transit Stops

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

Rationale

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 River District and the City's Smart Growth and Sustainability goals. In general, people will only leave their cars for transit if the experience is a pleasant and rewarding one.

Transit facilities, including shelters, trash receptacles, maps and schedules, etc. should convey a high quality character. 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 and shade.
3. Shade. Adequate shade must be provided to protect transit user from the sun. This can be achieved with either trees or a shelter, or at heavily used stops, both.
4. 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.
5. Amenities. Amenities such as Global Positioning System (GPS)-based real-time arrival information, ticket machines, nighttime lighting, and trash receptacles should be provided.
6. Sustainability. Transit shelters should be designed to promote transit and energy efficiency by incorporating features such as solar panels, LED lights, etc.



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

C. Pedestrian Realm

D.3.d Street Furnishings and Amenities - Street Lighting

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

Rationale

Frequently, street lighting is designed with the sole purpose to prevent certain adverse situations (e.g., crime, accidents, etc.) from occurring, rather than also 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 "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 should be coordinated with other
- 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. In lower activity areas where lower lighting levels are acceptable, closer spacing may not be necessary.
- E. Location in the Amenity Zone. Light standards should



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

street furniture and amenities to establish an attractive and unified design character.

C. Pedestrian Realm

D.3.d Street Furnishings and Amenities - Street Lighting (continued)

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, transit stops), rather than the vehicular zone (i.e., the street). Provisions for festive tree lighting should be available in retail districts and other suitable areas.
- 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.



Light standards with banners add visual interest to the streetscape.

C. Pedestrian Realm

D.3.e Street Furnishings and Amenities - Other

1. Drinking Water Fountains

- A. Drinking water fountains should be “high-low” type to provide comfort and accessibility for tall people or those who have difficulty bending, as well as for children, short people, or those in wheelchairs.
- B. Consider the need to provide bollards or other detectable barriers for the blind as the ends of protruding drinking fountain arms.

2. News Racks

- 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.



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

3. Wayfinding Signage

- A. The City’s existing wayfinding system should be expanded and enhanced to serve the needs of out-of-town visitors as well as citizens of Sacramento who circulate in the District.
- B. A River District 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 incorporated to cover the entire River District with constant, yet distinct and defined graphics.



Kiosk



Wayfinding Signage



Downtown Map



Convention Center Map

C. Pedestrian Realm

D.3.e Street Furnishings and Amenities - Other (continued)

4. Kiosks and Rest Rooms

- A. Kiosks and rest rooms 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 rest rooms and kiosks into a single structure.



Public Restroom

5. Seating

- A. Benches and other forms of seating (e.g., low walls, planter edges, wide steps, etc.) should be provided throughout the River District, 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, parks and other high pedestrian use areas to further promote pedestrian use. These benches should be fixed in place and constructed of durable and low-maintenance materials. Benches at bus stops should be incorporated into the design of the bus shelter, where appropriate.
- 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 provid-



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

C. Pedestrian Realm

D.3.e Street Furnishings and Amenities - Other (continued)

ing diverse opportunities for social interaction.

6. Trash and Recycling Receptacles

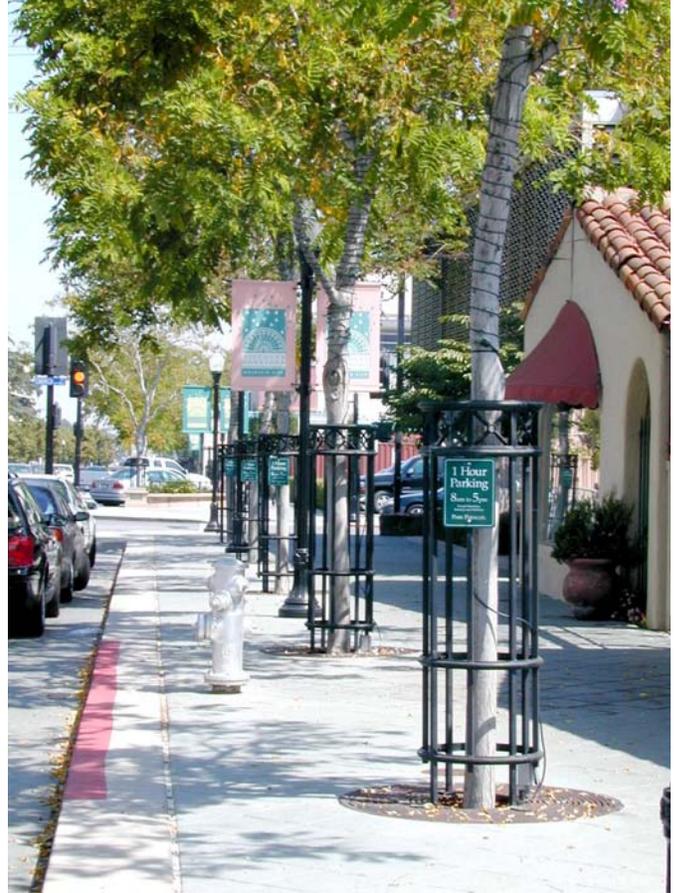
- A. Separate trash and recycling receptacles should be located regularly at intersections, near major building entrances, near bus stops and light rail stations, and adjacent to outdoor seating areas.
- B. Each receptacle should accommodate recycling, prevent wind and rain from entering the container, 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 the District or the Central City.

7. Bollards

- A. Where necessary, bollards can 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.

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.



Tree grate with integrated tree guards in areas with high pedestrian use.

- 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 River District. These meters are well-designed, reduce clutter in the pedestrian realm, conserve energy, increase revenues, and are customer friendly.

D.4 Riverfront Promenades, Trails and Bikeways

PRINCIPLE: Pedestrian and bike facilities should be a source of creative inspiration for accessing the riverfronts of the District and shall maximize the opportunities for public access to the rivers.

Rationale

The River District is bounded by over 2.7 miles of riverfront that is a part of two trail systems. However, despite this impressive length of shoreline, few opportunities exist to access the the levee trails or the riparian environment.

Recommendations

1. Extend the Sacramento River Promenade north from Old Sacramento to the entrance of Tiscornia Park.
2. Provide well defined trails to selected areas of the river's edge, discouraging off-trail use in areas of sensitive habitat.
3. In context with the view opportunities provided by the public viewing platform of the City Water Intake Facility, delicate platform structures should be considered for access into sensitive areas along the American River Parkway. Such structures provide accessible access from the trail and provide an unique vantage point to the immediate flora of the riparian area, as well as special views to the city and parkway.



Sacramento River Promenade south of Old Sacramento. Planned southward xtensions should be complimented with similar facilities to the River District.



Examples of lightweight structures for pedestrian access into sensitive habitat areas.

E. Landscape

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

Rationale

Traditionally, as core centers 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 River District 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. Coordinated selection and spacing of tree species and other plantings 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 urban area. Landscaping also contributes to creating a healthier and more sustainable environment. 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,



Street trees supplemented with additional landscaping create an inviting streetscape.



Landscaped median adds visual interest.

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

The combination of foliage cover, pervious surfaces, and evapotranspiration 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

D. Landscape

also slows stormwater runoff and increases groundwater infiltration. By reducing peak storm flows that periodically contribute to exceeding capacity of the City’s combined sewer system. The City’s Stormwater Quality Design Manual should be consulted for planning, design guidance and requirements.

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 city streets and parks leaves an indelible impression on those who visit Sacramento and engenders great pride for Sacramentans. Maintaining and expanding that urban forest represents an ongoing challenge. There has been increasing concern about the potential implications for the health of the urban forest as taller buildings with sub-surface garages are built to right-of-way lines, occupying space previously available for tree canopies and roots. With redevelopment, there is an opportunity to ensure that future development reserves the space needed for a healthy urban forest.

The 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. As the City embarks on an agenda to become more sustainable, comprehensive strategy for landscaping the urban environment is needed that 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. Concrete and masonry materials store heat during the day and re-radiate it at night.

A. Comfort and Interest. Landscaping shall be introduced to the public realm to contribute to the quality



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



Permeable pavement and rain gardens provide stormwater management benefits (Portland, OR).

D. Landscape

E.1. General Landscaping Guidelines

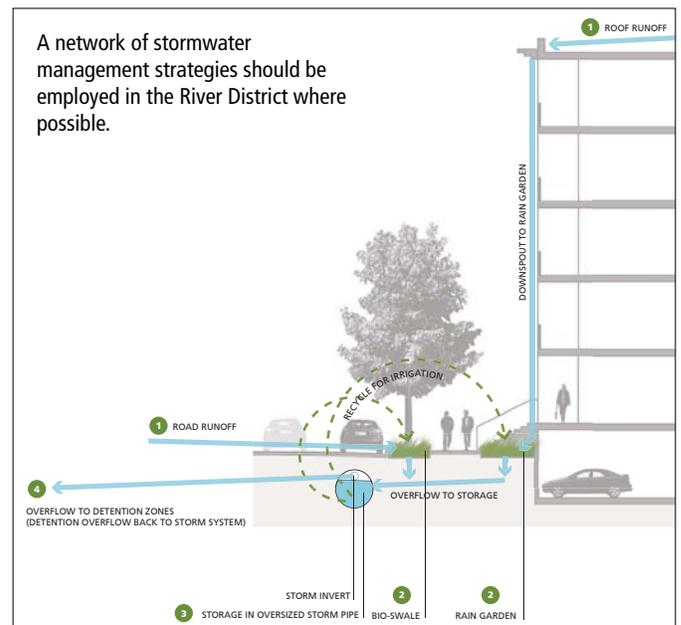
- of the pedestrian experience by adding color, texture, and form that add visual interest, and providing scale, shade, and buffering that contribute to the sense of comfort.
- B. Planters. In order to provide variety and visual interest, public realm landscaping may include permanent above-grade planters, 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 rain-water 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 zone, heat build up, increased urban pollution, and compatibility with adjacent uses.



Raised planters create informal seating opportunities.



Landscaping can be accommodated in a combination of planting strips and pots. Native drought-tolerant plants are recommended.



D. Landscape

E.1. General Landscaping Guidelines (continued)

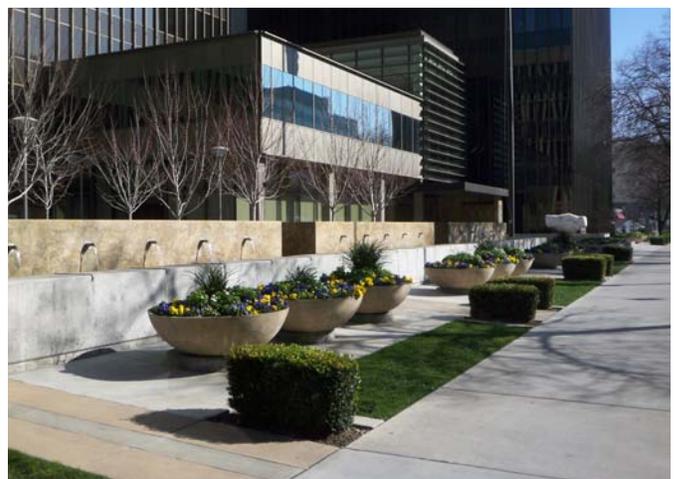
- I. Plant Selection. Plant species should be responsive to climate, existing species and planting patterns, although planting diversity is allowed where it complements and does not detract from a prevailing planting theme or pattern.
- J. Plant Selection for District/Corridor Identity. Species selection should include one or two species that are repeated regularly over the length of a block or throughout a district, to provide visual continuity.
- K. Maintenance. Landscaped areas should be properly maintained, which includes watering, removing debris, weeds and litter, modifying tree grates, 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:
 - Shrubs should be trimmed to three (3) feet or less in height above the grade of the sidewalk
 - Tree canopies should be trimmed up to at least eight (8) feet over the sidewalk and fourteen (14) feet above the street.
- M. 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.
- N. Stormwater Management. Wherever feasible, landscaped areas should incorporate permeable or unpaved surfaces to reduce the “heat island effect,” aid in stormwater management, and supply water to the root system of adjacent plants. The Stormwater Quality Design manual for Sacramento and South Placer county should be referenced for further guidance.
- O. Applicable city standards for sightlines should be consulted.



Landscaping can contribute significantly to the identity of an area.



Movable landscape elements provided by businesses



Fountain and landscape elements

D. Landscape**E.2. Street Tree Guidelines**

- A. **General.** In addition to playing important aesthetic and pedestrian comfort functions, the urban forest is also a vital component of the city's sustainability strategy. Street tree issues should be coordinated with the Urban Forest Manager.
- B. **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).
- C. **New Tree Plantings.** New and/or replacement street trees should conform to the predominant existing planting pattern with respect to species, spacing, and alignment. Species may need to be changed to reflect current horticultural best practices and site conditions.
- D. **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.
- E. **Horizontal Clearance.** Appropriate horizontal clearance is dependant upon species and subject to approval. Chapter 12 of the Municipal Code and the DOT Design and Procedures Manual should be referenced. Generally, to maintain proper clearance and sight lines, street tree centerlines should be located no closer than:
- I. 10-20 feet from a building façade, depending upon tree form,
 - 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.
- F. **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 River District suggest that the following guidelines should be used:
- I. 35% coverage in commercial streets,
 - II. 50% coverage in neighborhood streets.
- G. **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.
- H. **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 River District become more urban, alternative tree planting configurations



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

D. Landscape

E.2. Street Tree Guidelines (continued)

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. Corner sightlines should be taken into consideration. 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).

- I. **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.
- J. **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 can be appropriate for street trees in the River District. This should be done intermittently on a block basis to alleviate host-specific diseases. Accent species that highlight special features or uses should be interspersed with the primary species, rather than replacing it.
- K. **Pruning.** To maintain health of tree (e.g. safety, longevity) and provide a pleasing form, existing street trees should be pruned per ANSI standards, and not be topped.
- L. **Vertical Tree Clearance.** Street trees should be selected that have a branching pattern and bottom 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.

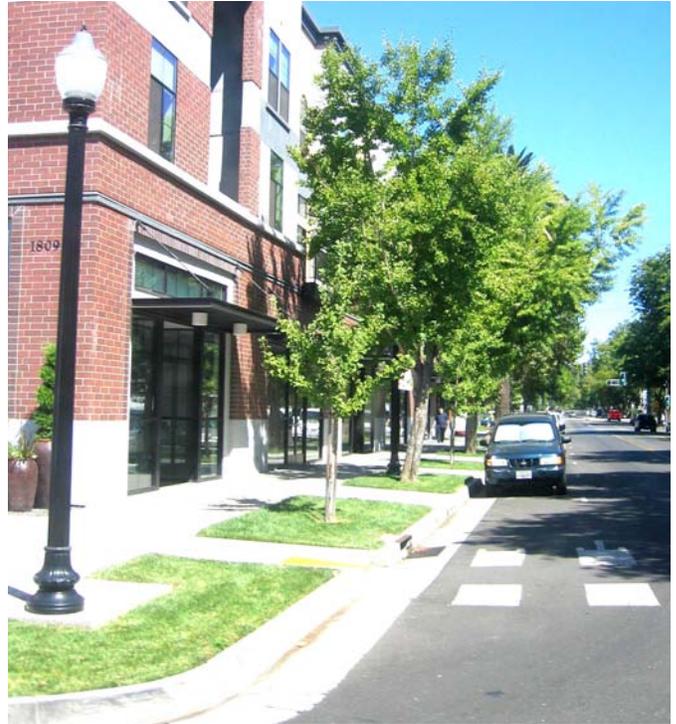


Continuous planting trenches covered with permeable pavers provide for healthier trees.

D. Landcape

E.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, but 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. In areas with high pedestrian activity, metal tree grates and tree guards may be used on all tree wells to protect trees, and allow for aeration and surface water collection. In areas with lower pedestrian traffic, decomposed granite in addition to park strips may be used. See expanded tree grate guidelines in Street Furnishings and Amenities section.
- 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 hard-scape plaza. The sections of trench between tree



Park strips for street trees are appropriate on residential streets within the River District.

- 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.
- G. Parkway Planting Strips. Where appropriate, 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. Protecting Tree Roots. In order to avoid damage to pavement, appropriate, deep-rooted trees should be selected, and root barriers should be installed as necessary.

F. Small Public Places

PRINCIPLE: Small Public Places shall be provided throughout the River District, supplementing the main civic-scaled park system.

Rationale

Small Public Places can provide needed open space for surrounding residences, offices, and commercial buildings, especially when larger land parcels are not available. Small Public Places will help fill any park deficiency gaps and help to create public gathering places that will foster a sense of community. The scale and features of these small public places should be consistent with its context.

The inclusion of small parks and plazas is also intended to provide needed relief from the hardscape and intensity of the denser land use patterns within the River District. Small Public Places will serve as visible and positive places to gather and recreate for persons living, working or visiting nearby. The intent is that Small Public Places will help create a sense of community and provide both passive and recreational facilities and experiences. 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.

Their smaller size generally limits their use to casual and passive recreation (i.e. no ball-games), dog walking, etc. Their layout may include 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 small public space that fits on a single 40’ x 80’ lot. Small Public Places 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.

Small Public Places can contribute to local stormwater management strategies, serving as a storage area for run-off, with swales that may connect to larger systems, and through the provision of permeable areas.

Small Public Places may be public, private, or any form of partnership. They are often created on abandoned inner-

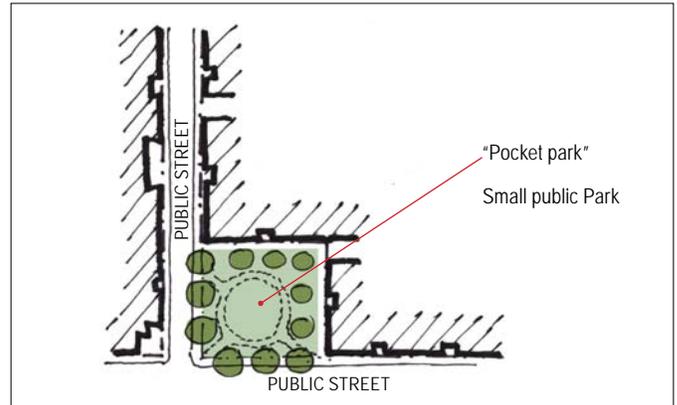


Figure 1. Small public places should be accessible from the public sidewalk.



Figure 2. Paley Park in New York City is a small, cobble urban room of just 4,200 sf (1/10 acre).



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

E. Small Public Places

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.

Figure 3 is a project 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.”

Guidelines

1. The Parks and Recreation Master Plan should be referenced for policies and further guidelines for Small Public Places.
2. Design all new Small Public Places parks around a “purpose.” Applicants or Property Owners should identify an appropriate purpose for each of their proposed parks, preferably by meeting with the neighborhood and/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.
3. Small Public Places shall be designed to be accessible to the highest possible number of users. They should be accessible from a public sidewalk and be inviting to the public.
4. Layout should include seating areas and central design features. The design should combine hard and soft landscape.
5. There is no minimum size for a Small Public Place, although established guidelines should be followed for a minimum size dependent upon the purpose of the park.
6. Encourage Small Public Places to contribute to local stormwater management strategies.



Figure 4. Aerial View & Plan of South Park, San Francisco (75' x 500'; 0.86 Ac)



Figure 5. Aerial View & Plan of Precita Park, San Francisco (120' x 800'; 2.2 Ac)



Figure 6. Panoramic view of the mini-park at 24th street in the Potrero Hill neighborhood of San Francisco

G. 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.

Rationale

Public art enhances the environment and encourages pedestrian travel by adding visual interest to the public streetscape. 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. 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.

The Sacramento Metropolitan Arts Commission (SMAC) is the coordinating body for public art in the Sacramento region, and should be consulted in coordinating public art at the beginning stages of projects.

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.



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

F. Public Art

3. Enhance Challenging Pedestrian Areas. Public art should be incorporated into difficult pedestrian transition zones, such as the connections over and under the freeway to the Railyards and below the freeway to the River, to facilitate pedestrian use by enhancing and animating these spaces.
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.



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



Sculptural elements can double as seating.



Water fountains provide relief during Sacramento summers



Prominently located public sculpture by R. Arneson is enjoyed by many.

Chapter 4: Private Realm Guidelines



Section 6 - Chapter 4: Table of Contents

A. Introduction	4-1
B. Site Planning.....	4-4
1. Setbacks and Build-to-Lines	4-5
1. Build-to-Lines & Setbacks (cont.)	4-6
2. Lot Coverage-Building Footprint.....	4-7
3. Open Space	4-8
4. Open Space - Small Public Places.....	4-9
5. Landscaping	4-10
6. Project Size and Building Type	4-11
7. Site Access, Service Areas and Utilities	4-12
7. Site Access, Service Areas and Utilities (cont.).....	4-13
C. Building Types	4-14
1.a - Residential Low-Rise	4-15
1.b - Residential Mid-Rise	4-17
1.c - Residential High Rise.....	4-19
2.a - Commercial Low/Mid Rise.....	4-21
2.b - Commercial High-Rise.....	4-23
D. Massing and Building Configuration.....	4-25
1. Building Component and Term Illustrations.....	4-27
2. Street Wall and Building Base Height	4-28
3. Bulk Controls	4-29
3.a - Bulk Controls - Residential & Residential/ Mixed-Use Buildings	4-32
3.b - Bulk Controls - Commercial Office and Commercial Office / Mixed-Use Buildings, and Hotels	4-33
3.c - Bulk Controls - Tower Separation and Height Differentiation ..	4-34
3.d - Bulk Controls - A Distinctive Top.....	4-35
3.e - Bulk Controls - Rooftops and Mechanical Penthouse Enclosures.....	4-36
4.a - Façades - Ground Level Uses.....	4-37
4.b - Façades - Transparency	4-38

Section 6 - Chapter 4: Table of Contents (continued)

4.c - Façades - Articulation of Street-Wall	4-39
4.d - Façades - Corners.....	4-40
4.e - Façades - Fenestration: Window and Facade	
Systems and Patterns.....	4-41
4.f - Façades - Entrances	4-43
4.g - Façades - Canopies, Awnings, Sunshades.....	4-44
4.h - Façades - Projecting Elements and Encroachments	4-45
4.i - Façade Materials	4-47
4.i - Façade Materials	4-48
4.j - Façades - Lighting	4-49
4.k - Façades - Signage	4-51
4.l - Façades - Temporary Construction Screening	4-54
5. Development along Alleys	4-55
6. Bridges and Portals	4-56
7. Sustainability.....	4-57
8. Public Art in the Private Realm	4-61
E. Parking and Vehicle Access	4-63
1. Location and Configuration	4-64
1.a - Parking Location and Configuration - Structured Parking	4-66
1.b. - Location and Configuration - Surface Parking	4-69
2. Bicycle Parking	4-70
F. River District Infill With Respect To	
Historic Resources.....	4-71

A. Introduction

Chapter 4 - The Private Realm

The River District Design Guidelines provide policy guidance to the Design Commission, Sacramento Housing and Redevelopment Commission, Planning Commission, Preservation Commission, and the City Council. Used in concert with the City of Sacramento Zoning and Preservation Ordinances 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 and Preservation Commissions 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.

These Guidelines incorporate both mandates and recommendations. Where the word “shall” or “must” is used it is intended to be a mandate; and where the word “should” or “encouraged” is used, it is intended to be a recommended guideline. The mandates are treated as standards with little room for variation whereas the recommendations are subject to some interpretation and have room for minor variances.

Some key building components referred to repeatedly in this section are identified and pictured at the beginning of *Part D - Massing & Building Configuration*.

Review of Alternative Designs

The River District Design Guidelines are intended to be a framework and basis for the review of projects in a fair, consistent, transparent, and seamless fashion by the City of Sacramento. Although not all Design Principles will be met on any given project, staff will review projects for overall compliance to ensure project meet the intent of the design criteria set forth in this document.

As such, alternative designs that can be demonstrated to achieve key design principles in some form will also be considered by City Staff. The Preferred Design will always be the recommended approach for proposed projects; however, when an Alternate Design can be proven to be appropriate, staff will be flexible and use reasonable judgment when reviewing projects.

Alternative Designs can be proven to be appropriate when the proposed design provides equal or greater amenities

and benefits to compensate for areas of the project design not in compliance. Alternative Design projects should always strive to uphold the Urban Design Policies set forth in this document related to context, architectural character, project scale, pedestrian experience, exterior material quality, integration of building services, and sustainable design.

1. River District Urban Design Policies

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 through emulation, interpretation, or contrast in character.*
- 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

Design guidelines in the chapter are grouped into these categories:

- A. Introduction (this page)
- B. Site Planning
- C. Building Types
- D. Massing & Building Configuration, including Sustainability at the Building Scale

A. Introduction

- E. Parking & Vehicle Access
- F. River District Infill with Respect to Historic Resources

Alternative Designs can be proven to be appropriate when the proposed design provides equal or greater amenities and benefits to compensate for areas of the project design not in compliance. Alternative Design projects should always strive to uphold the Urban Design Policies set forth in this document related to context, architectural character, project scale, pedestrian experience, exterior material quality, integration of building services, and sustainable design.

1. River District Urban Design Policies

The guidelines that form the criteria for Private Realm architectural review are based on the following policies:

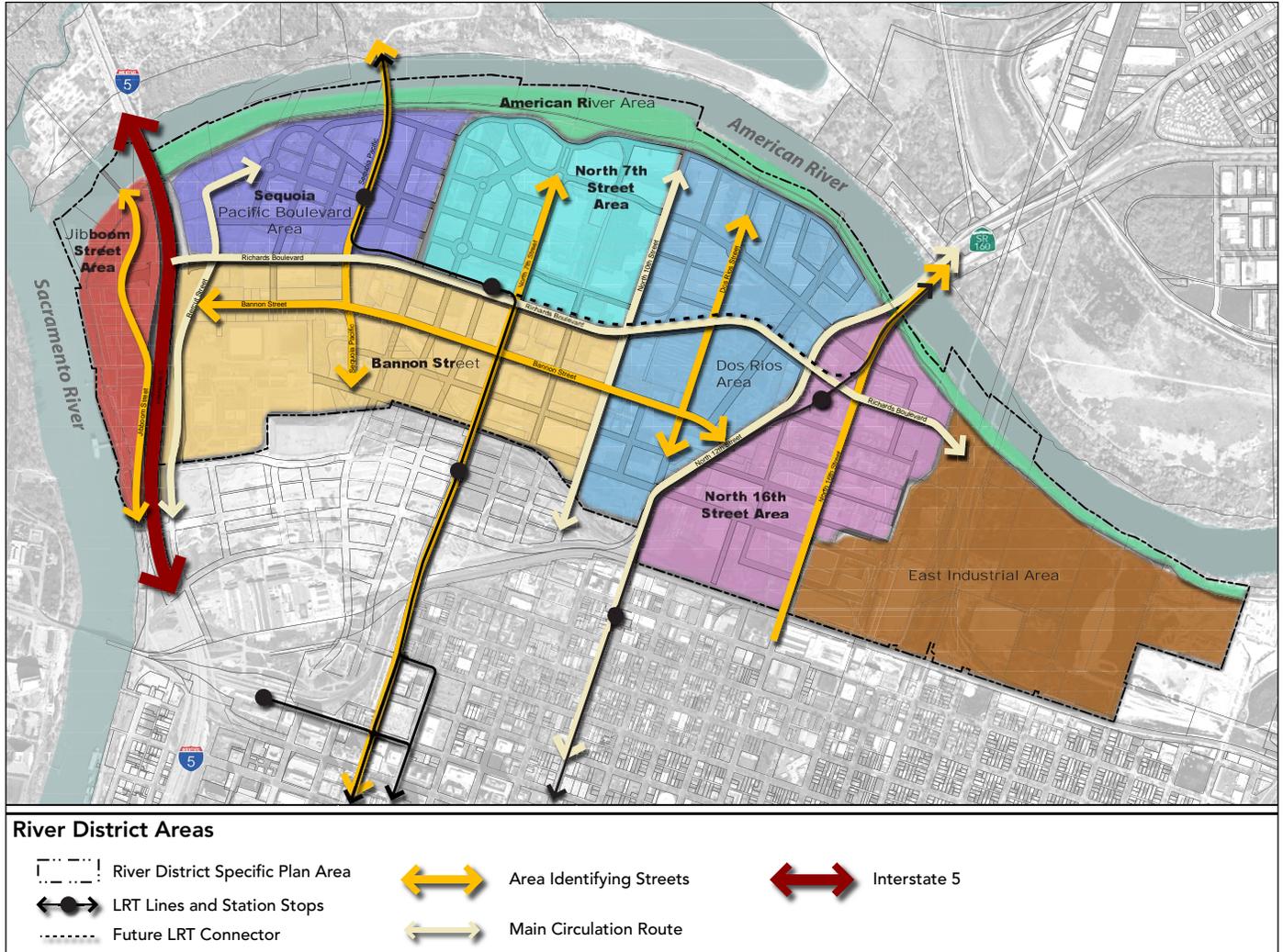
- A. Context: Allow for creative architectural solutions that acknowledge contextual design through emulation, interpretation, or contrast in character.*
- B. Character: Complement the architectural character of existing historic building enclaves and promote harmony in the visual relationships and transitions 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

Design guidelines in the chapter are grouped into these categories:

- G. Introduction (this page)
- H. Site Planning
- I. Building Types
- J. Massing & Building Configuration, including Sustainability at the Building Scale
- K. Parking & Vehicle Access
- L. River District Infill with Respect to Historic Resources

A. Introduction



Seven Areas of the River District that have distinctive urban design character.

B. Site Planning

The Site Planning Guidelines are intended to guide the layout and site design of a parcel. These guidelines account for the physical, regulatory and programmatic forces that help to determine the optimum building footprint and envelope on a site, given that parcel's constraints and opportunities.

The site planning needs to balance forces from outside the site, e.g. traffic volumes on adjacent roads and existing trees in the public right-of-way, with internal site constraints, e.g. required setbacks, existing trees, and parking demand.

These guidelines introduce some key site planning concepts. Categories of guidelines, which are keyed in at the diagram at right, include:

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

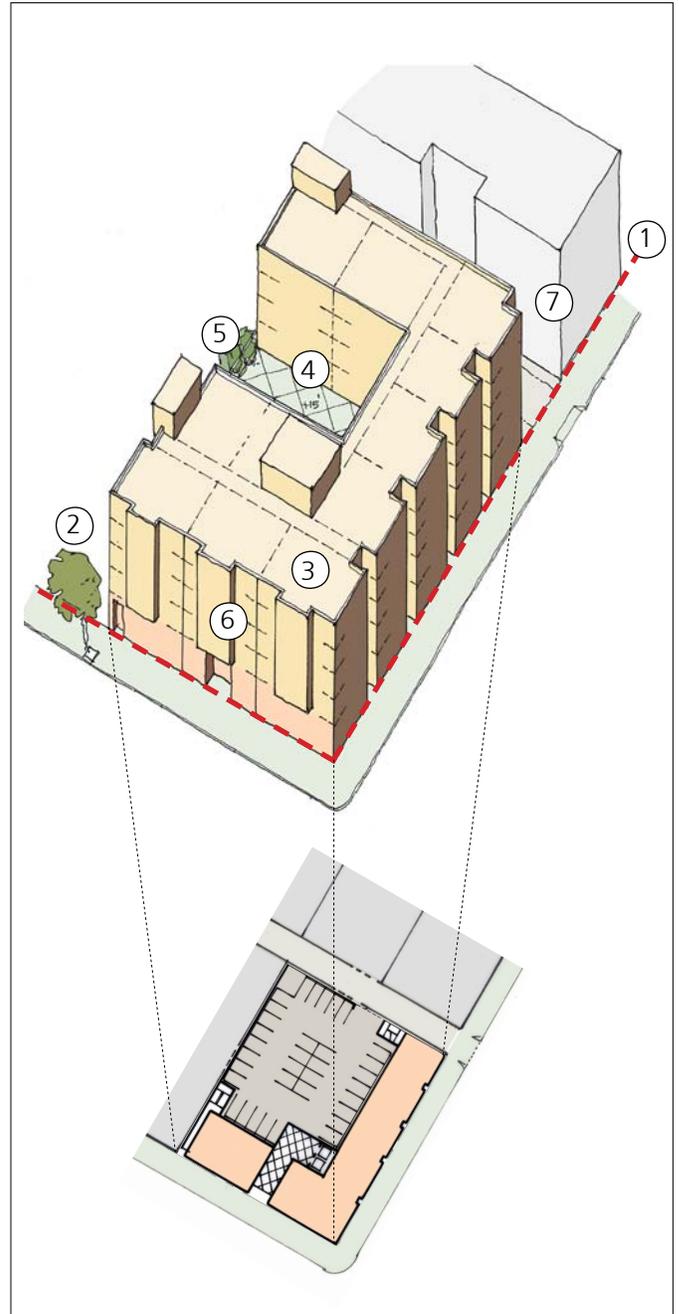


Figure 1

B. Site Planning

1. Setbacks and Build-to-Lines

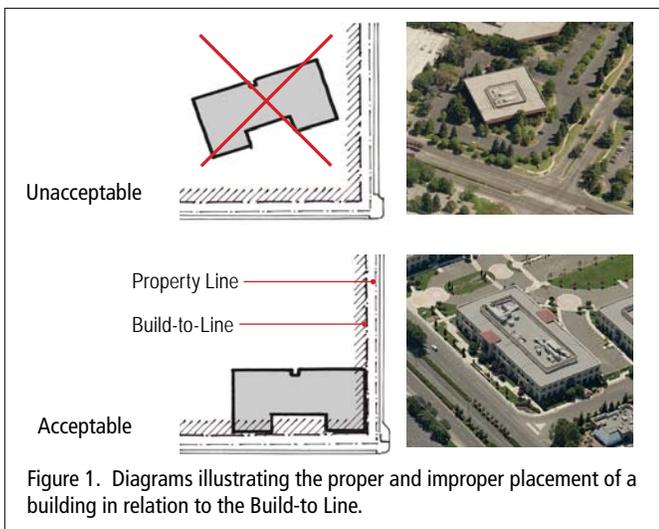
PRINCIPLE: New buildings shall have a setback appropriate to the district, typically similar to immediately adjacent existing buildings.

Rationale

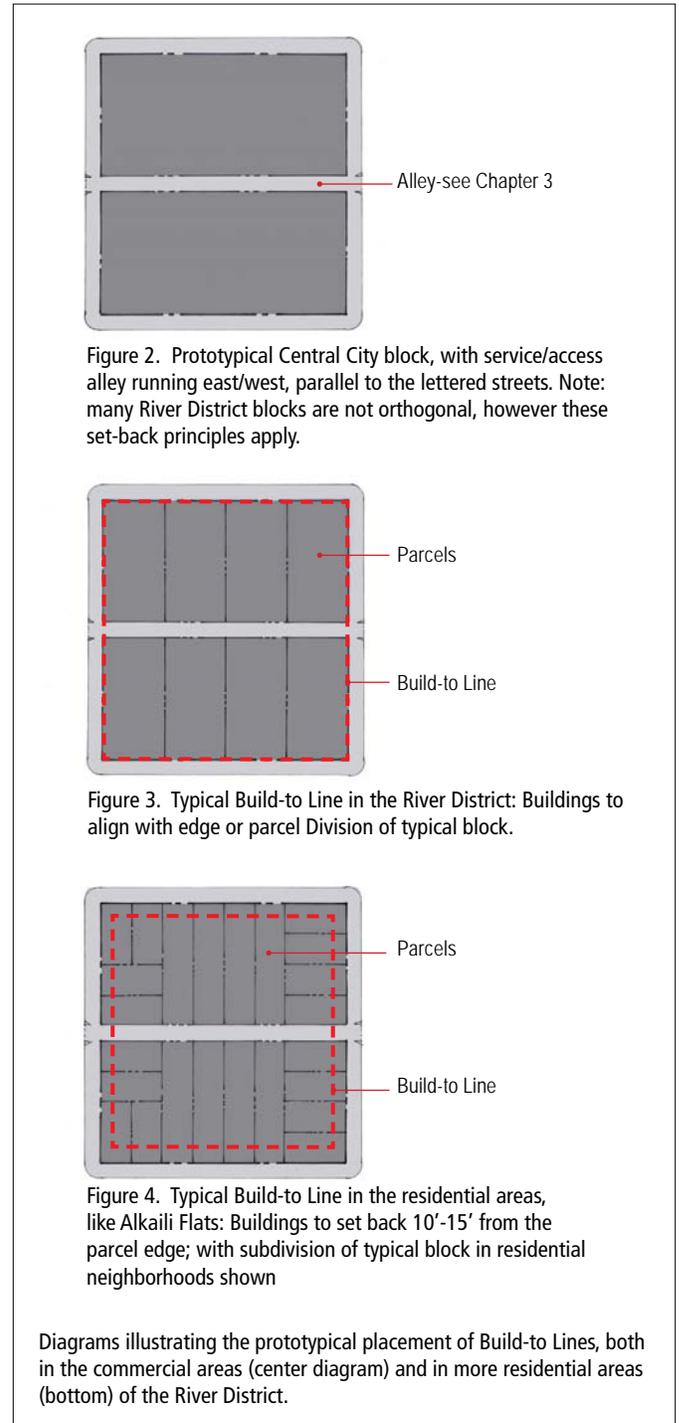
In order to transform the public realm throughout the River District, the edge of the private realm should be established with consistently aligned building frontages. The amount of setback should be appropriate for the individual district areas. For example, buildings would have little or no setback in the commercial areas of the District, 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 provides a privacy buffer. Build-to-Lines are established to ensure that the setback is a specific required distance rather than a minimum. The main massing of the building should be established along the Built-to-Line. In the River District commercial areas, this will hold the consistent line of the street-wall. 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 River District locations, or a minimum percentage in other locations, where a public plaza, for example might be a desirable feature, such as at North 7th Street and Richards Boulevard (see Chapter 3).

Required setbacks can permit the tree canopy of the existing mature street trees to remain unobstructed.

Guidelines
Build-to Line Examples



Block Pattern Diagrams



B. Site Planning

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

1. Setbacks

A building's setback should be appropriate for its building type, its adjacent buildings, and its location in the city. The edge of the private realm is thus established with consistently aligned building frontages. For example, buildings would have little or no setback in the Sequoia and Bannan Street Areas, where the highest level of public activity occurs. In more residential areas, a wider setback is appropriate for a landscaped zone between the building and the back edge of the sidewalk is desirable.

- A. Residential buildings should be setback generally 0'-15'; or be consistent with existing buildings.
- B. Commercial buildings should have zero setback; or be consistent with existing buildings.
- C. Retail, Mixed-Use, and buildings along transit corridors should not be setback unless accommodating seating which in such instance a portion of the building should be set back 5' to 10'.

Appropriate setbacks are listed with each building type in Chapter 4, Part C, and the River District Special Planning District (SPD) provides precise setback requirements.

2. Open Space Provision

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

Build-to Line Examples

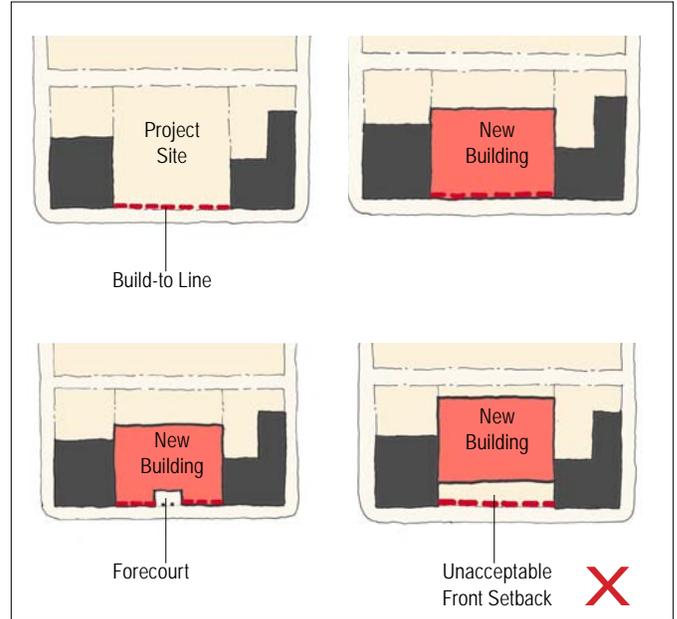
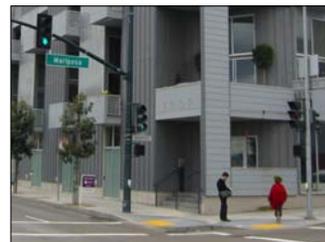


Figure 1. Diagrams illustrating the placement of a building in relation to the Build-to Line.

Setback Examples



0' Setback
Stacked loft apartment building



3' Setback
Multifamily residential development



12' Setback
Duplex residential development

B. Site Planning

2. Lot Coverage-Building Footprint

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

Rationale

A building which completely fills up its lot and repeats that floorplate to maximum height, allowing no air or light access to its occupants, can seem overbearing to its neighbors. Limiting the amount of lot coverage can remedy this problem. Lot Coverage Guidelines are often combined with requirements to address holding the street-wall and defining the street frontage. Penetration of air and light into the interior of the lot is also a prime concern.

Typically lot coverage may be maximized on the ground floor, where retail, common, and garage spaces are likely to occur, and be 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. Consult the Zoning Code for allowable lot coverage for the parcel.
2. On lower levels (no more than 25% of the total number of floor levels): Coverage by the building footprint may be up to 100%.
3. On upper levels: Coverage by the building footprint should not exceed 75% of the overall lot area. See Figure 1.
4. Where the principal outlook for a living room is oriented to the open space, e.g. a light court, that open space should have a minimum width (W) to height (H) ratio of at least 1:1, (i.e. W greater than or equal to H). See Figure 2.

Lot Coverage Diagrams

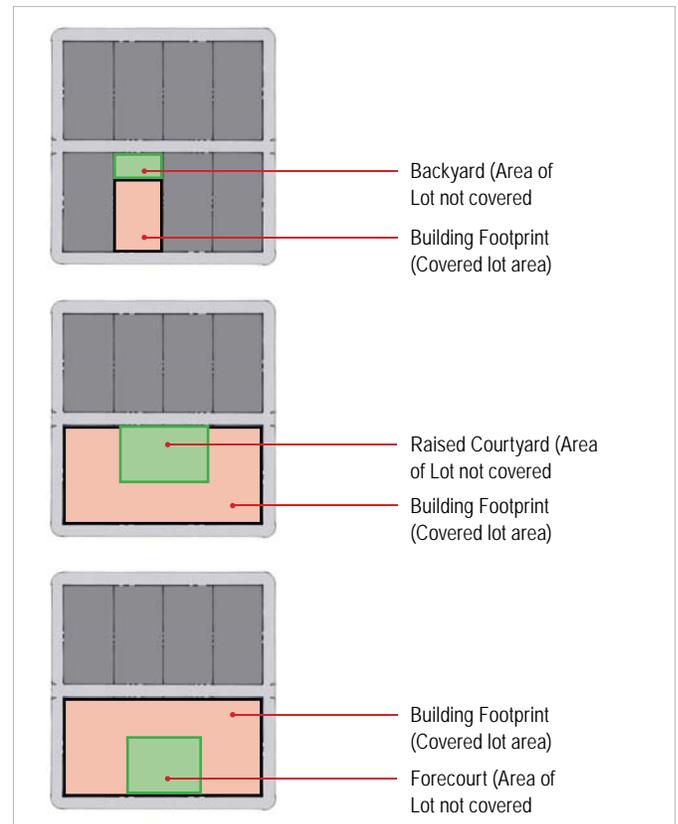


Figure 1. These site diagrams illustrate building footprint options which do not exceed 75% of the parcel area. The remaining open area on the parcel can be designed as a private, semi-public, or public open space.

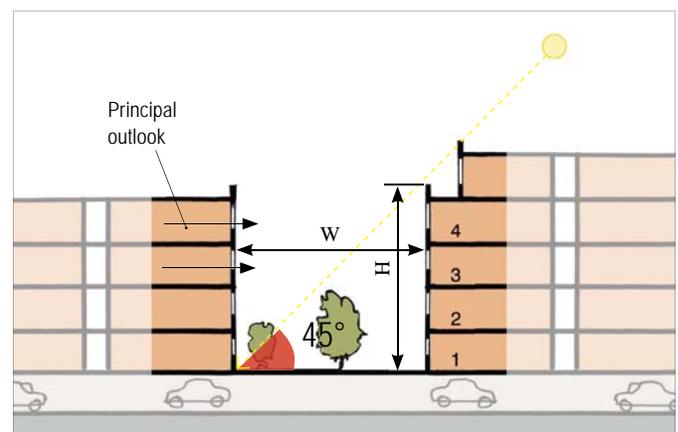


Figure 2. Open space separation between residential buildings.

B. Site Planning

3. Open Space

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

Rationale

Open space which is well-designed, local and accessible is a key component of any livable city, and a public benefit to the residents of the River District. In accordance with the City's Parks Masterplan and Small Public Spaces guidance, 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 all citizens.
- 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. Public Open Space must be accessible and meet ADA requirements.
- E. See also *Chapter 4, Part B.4. - Open Space - Small Public Places.*

2. Common/Private Open Space

Private and common open space belongs to the residents and is either in the form of a secure shared 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 area quantities should comply with City of Sacramento Parks Department's Quimby requirements.

4. Area Specific Requirements: Jibboom Area

- A. Development fronting onto the river levee shall provide 15'-0" wide open space connections for access to the river.

B. Access to the rivers shall be provide at a minimum interval of 400 feet, where public street parallel the river.

Open Space Types



Figures 1 and 2. Private open space- balconies outside apartments, Amsterdam (left), Sacramento. (right)



Figures 3 and 4. Examples of common or shared open space. Public: San Francisco Mint Plaza (left); Semi-public San Jose (right).



Figures 5. Example of public access to public facilities. (Federation Square, Melbourne, Au)

B. Site Planning

4. Open Space - Small Public Places

PRINCIPLE: Encourage the provision of new Small Public Open Spaces

Rationale

Small public spaces will be a key component of the open space network in the River District. Small Public Places may be public, private, or any combined form.

Small Public Places can provide needed open space for surrounding residences, offices, and commercial buildings, and serve as places to gather and recreate for persons living, working or visiting nearby. The inclusion of publicly accessible small parks and plazas is intended to provide a complement to taller buildings and needed relief from the hardscape and intensity of the denser land use patterns within the River District. Small Public Places help create a more liveable city.

Guidelines

1. Purpose. Design Small Public Places parks around a "purpose." Applicants or property owners should identify an appropriate purpose for each proposed park before it is designed, preferably by meeting with the neighborhood and/or community to determine the most appropriate purpose of the future park. Categories of purposes could include education; socializing; exercise; and relaxation. They should not be limited to addressing only the needs of office workers and patrons of commercial buildings, but should permit other kinds of space that meet other demonstrable need, such as children's playgrounds, workout space for tai chi or active sports facilities.
2. Site design. Layout should include seating areas and central design features. Flexible seating arrangements are encouraged. The design should have adequate access to sunlight, and combine hard and soft landscape.
3. Size. There is no minimum size for a Small Public Place, although established guidelines should be followed for a minimum size dependent upon the purpose of the park. (See Table 19 Guidelines for Small Public Spaces, Parks and Recreation Master Plan 2005-2010)
4. Ecological Design. Privately owned public open spaces shall provide enhanced landscaping and ecological functionality, and contribute to local stormwater management strategies. Plazas, particularly because they are open expanses of paved material, shall be designed to capture, filter and recycle rainwater from adjacent buildings and streets.
5. Accessibility. Small Public Places shall be designed to be accessible to the highest possible number of users. They should be accessible from a public sidewalk and be inviting to the public.
6. Signage. Provide signage of adequate size and location. The sign should include the name of the owner of the building; the name, address and phone number of the person designated to maintain the open space; and a statement that complaints regarding the open space may be addressed to named city agencies.
7. The Parks and Recreation Master Plan should be referenced for policies and further guidelines for Small Public Places.



Figures 1 and 2. Examples of Small public spaces: The plaza of the CalEPA building, an example of a corner plaza appropriate for public spaces at 7th Street and Richards Boulevard. Below: Raised plaza and green space along public sidewalk, Swanston Street, Melbourne Australia.

B. Site Planning

5. Landscaping

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

Rationale

The quality of an open space is only as good as its design and landscaping. Quality 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 seasonal lack of precipitation, naturalized and low-water tolerant 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. Plazas and courtyards should be well-defined by buildings and landscaping, comfortably scaled, with shade and ornament, furnished with areas for sitting, and lighted for evening use.
5. Planting and finishes selected should be appropriate to the type and volume of use. Durability of the landscaping is a key component to how the space will be used and maintained long after implementation.
6. Landscaping along "River Walk" streets shall incorporate indigenous riparian plant materials into the landscape.
7. On-site landscaping shall incorporate Low-Impact-development measures such as bioswales for water quality treatment. See Sustainability section.

Landscaping



Figure 1. Appropriately scaled planting defines mid-block pedestrian alley



Figure 2. Color and water elements create a soothing environment in commercial districts.

Hardscape Paving

- Decorative paving treatment, texture and color of surfaces under arcades, colonnades, or within courtyards and plazas should complement the architectural character and materials of the project.
- Well designed utility grills or vents in conjunction with decorative surface materials are encouraged.
- On-site paving material should have non-slippery surface when wet.
- Paving treatment and material may extend into the public sidewalk ROW. Public realm paving alterations to sidewalks and streets are discussed in the Public Realm chapter of these guidelines. See Chapter 3.

B. Site Planning

6. Project Size and Building Type

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

Rationale

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. Projects that approach the size of an entire block or more can often be repetitive and monotonous, inserting potentially homogenous design, land uses and their related monocultures into a city neighborhood.

It is desirable to encourage a rich mix of both land uses and architectural variety in the city. Each urban block should include a mix of uses, building types, heights and styles. Design concepts for large scale projects more than one-half block in size should achieve a refreshing variety of style and avoid monotonous repetition of architectural form and details on multiple buildings. This 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. New blocks shall be maintained at the size allotment of the River District Specific Plan unless a civic program use requires an increase in block size. Where large blocks exist, new development shall seek to subdivide the large block into smaller block sizes.
2. Projects that propose the elimination of any city street or alley should be discouraged. If the elimination of a street or alley is proposed, the publicly-accessible right-of-way or easement should be kept in its place.
3. If a project is more than 2.5 acres, it should be subdivided with an appropriate number of public streets.
4. Any development site greater than one quarter of a city block should include at least two distinct building mass articulation and roof heights which include at least a 15' variance across the project. See Figure 3.

A Variety of Parcel Sizes

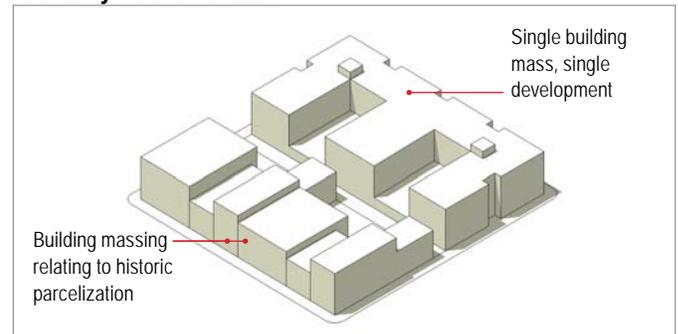


Figure 1: This diagram shows two scenarios. To the left, buildings relating to the historic block parcelization. To the right, a single building mass which occupies numerous lots developed in aggregate.

Non-Orthogonal Blocks



Figure 2: Irregular block shapes produce interesting juxtapositions and architectural solutions such as this loft housing in the Protrero Hill District of San Francisco.

A Variety of Building Types & Scale



Figure 3: A variety of scale and form in a single block, as seen here at 18th and Capitol Streets, provides diversity of retail and living opportunities while retaining original historic resources.

B. Site Planning

7. Site Access, Service Areas and Utilities

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

Rationale

Vehicular access areas, service areas and utilities connections 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). If there is no alley adjacency, access is preferred to come from the north-south streets (secondary access). Only if there is no other alternative available should vehicular access be given from the east-west street (tertiary access).

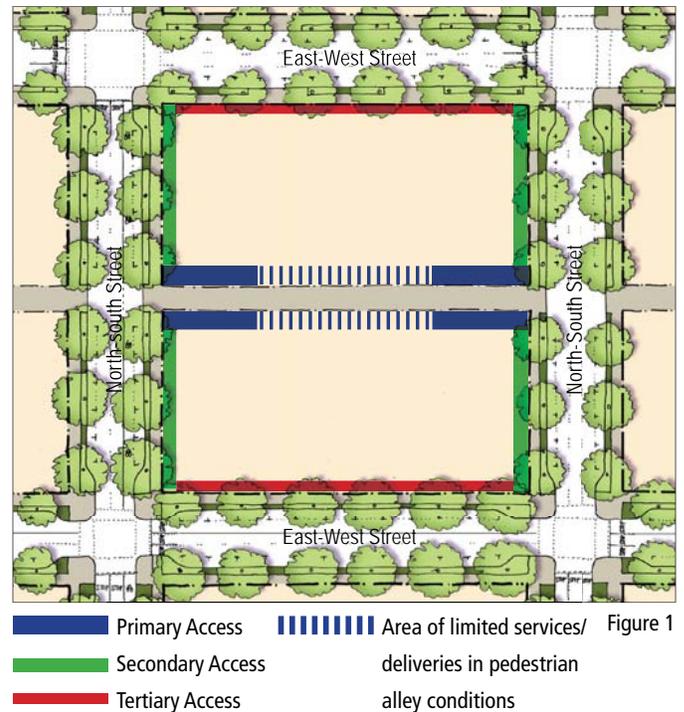
2. Servicing

- For major projects, trash storage facilities, loading docks, mail rooms and other service related functions should be located within the interior space.
- For major projects, truck parking for pick-up and deliveries should be located on-parcel
- Access into service facility should be located on the alley not on a public street. For multi-use alleys, vehicle access should be limited to 100 ft from back of sidewalk (see diagram).
- The facade around the service opening should be treated in a decorative manner, consistent with the character of the main building.

3. Curb Cuts: Maximum allowable curb cuts:

- Single-family residential: One curb cut, up to 10' wide
- Attached residential and multifamily residential (up to 20 units): One curb cut, up to 12' wide
- Multifamily residential (more than 20 units): One curb cut, up to 24' wide
- Commercial up to 75,000 gross floor area: One curb cut, up to 24' wide

Access



- Commercial greater than 75,000 gross floor area: Two curb cuts, up to 24' wide each

4. Maximum Parking Garage Opening

- single lane access: 12' wide
- double lane access: 24' wide

5. Trash & Trash Removal

- The trash pickup route should be located along alleys, where possible. Where alleys are designated as pedestrian routes, additional requirements may apply.
- Retractable bollards on shared-use alleys and pedestrian alleys shall limit trash pick-up times to off-peak hours.
- Trash storage areas shall not be in the 20' public right-of-way of the alley, but rather be recessed into the private parcel. The trash area should be protected from rain, and secured behind a lockage door or gate.

B. Site Planning

7. Site Access, Service Areas and Utilities (cont.)

D. Where it is physically infeasible to provide a waste storage facility within the interior space of the development, the outdoor trash storage facility should be designed as follows:

1. The walls of the trash enclosure shall be constructed of solid masonry material with decorative exterior surface finish compatible to the main building.
2. The structure shall have lockable, decorative, heavy gauge, solid metal gates and be designed with cane bolts to secure the gates when in open position.
3. The height of wall shall be minimum six feet and contain a decorative roof to screen bin from view. (See Zoning ordinance for additional requirements).
4. The perimeter of the facility shall be landscaped with climbing vines and/or shrubs.

6. Utility Connections

- A. Utilities connections to buildings should be designed to minimize their occurrence and mitigate their visual impact.
- B. Where possible, connections should be made on the private parcel, in a manner that is integrated with the building design. See Figure 2.
- C. Utilities connections should be screened with plantings (see Figure 1), not be left floating and exposed in setback zones (see Figures 3 and 4).



Figure 1: Utilities connections should be accessible but screened with plantings.



Figure 2: Utilities connections should be carefully located and integrated into the rhythm of the design.



Figure 3: Utilities connections should NOT be left floating and exposed in a sidewalk's park strip.

C. Building Types

Background & Introduction

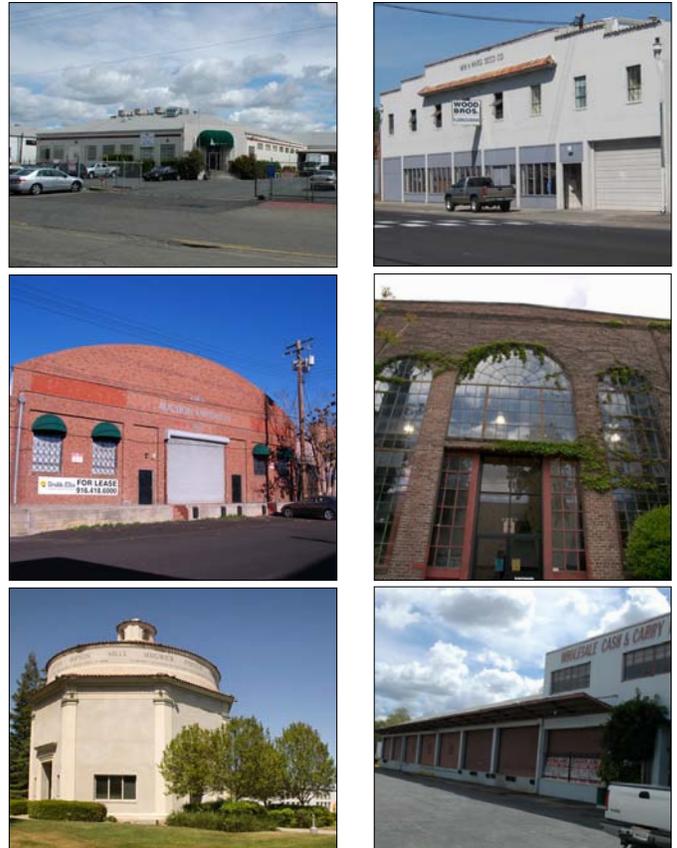
An understanding of building types is essential for all parties who are involved with developing, designing, reviewing and approving projects which are located in urban and transitional areas of the River District. Understanding building types allows for the informed assessment of a projects ability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

The River District is fairly uniform in the range of building types. The first building developed with large floor-plate canneries and packing warehouses. Other were low-rise and masonry buildings with wood truss framework for large span floor areas. Smaller commercial masonry buildings were located near the old highway between 12th and 16th Streets. After Interstate 5 opened regional access on the western end of the district, tilt-up concrete warehouses began to spring up with close proximity to downtown and the regional transportation system.

With the loss of the canning industry, several large cannery sites have undergone recent transformation. The Continental Canning Company has been redeveloped as the headquarters campus for the California Highway Patrol. The site of the former Richards-Bercut Cannery is undergoing a complete transformation to a mixed-use village with a variety of housing types and mixed-use office.

This section discusses a variety of building appropriate types for the River District, including general urban design guideline recommendations for each type.

Existing Building types in the River District



Figures 1-6, clockwise from top left: 1940's warehouse; two-story office retail, typical of 16th Street; masonry entry, 16th Street; loading dock warehouse, Vine Street; Beaux-Arts water treatment facilities; brick warehouse North C Street.

Township 9 sets a new precedent future building typology



Figures 7. The River District circa 1966. New tilt-up warehouse construction just east of the Jibboom Street bridge in anticipation of the construction of the new Interstate. Bercut-Richards and Continental Cannery in the upper left middle of the photo.



Figures 8. The former Bercut-Richards Cannery site renamed Township 9, consists of a variety of housing typologies and mid-height urban office.

C. Building Types

1.a - Residential Low-Rise

PRINCIPLE: Low-rise residential development shall be included as a viable building type in the River District for infill housing in established residential and transition zones.

Rationale

This section 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 (typically wood frame) construction.

For single family parcels within the River District Design Review District, refer also to the Central City Neighborhood Design Guidelines for further guidance.

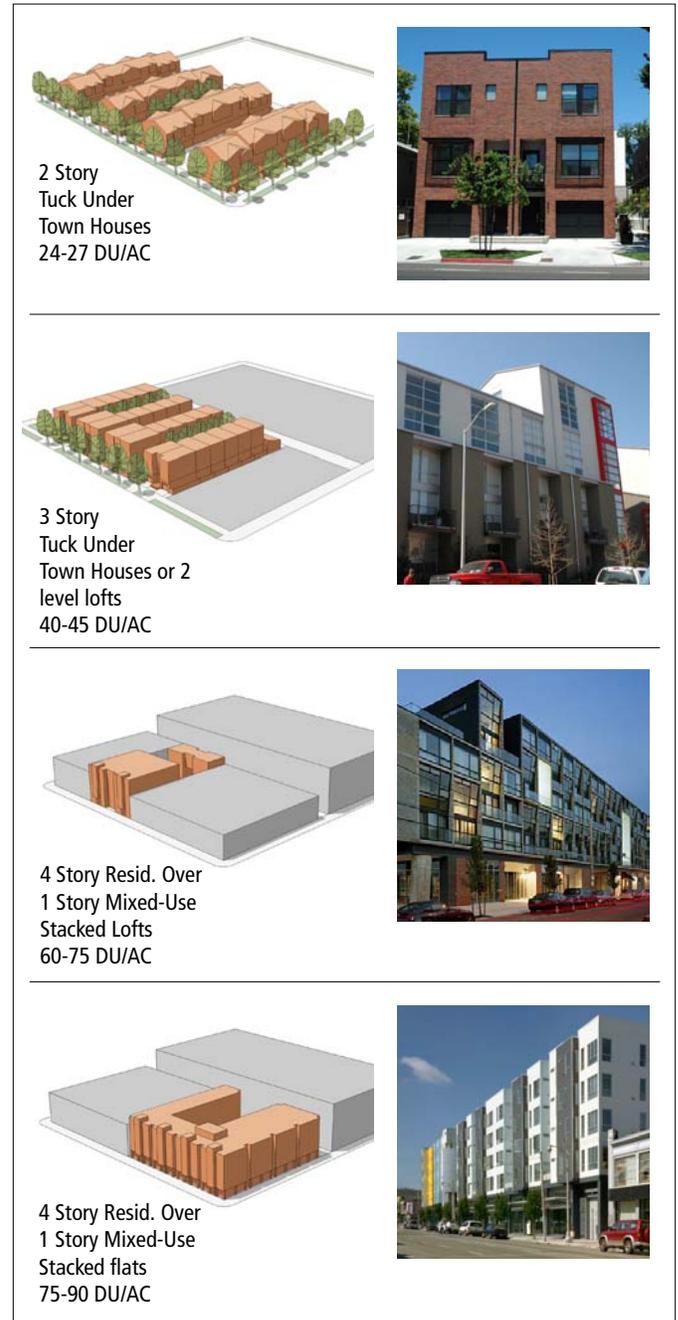
The following guidelines are recommended parameters for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Zoning Code.
- B. Build-to Lines, Setbacks: 5'-15'. Should be consistent with adjacent buildings and Zoning Code.
- C. Lot Coverage (above parking): See *Chapter 4, Part B.3 Lot Coverage* and the Zoning code.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: As per Zoning Code; otherwise 50 sf per DU
 - ii. Common Open Space: As per Zoning Code; otherwise 80 sf per DU
- E. Public Open Space Requirement: 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. Curb cuts should be minimized.

Low-Rise Residential Massing Diagrams



Figures 1, 2, 3, and 4. 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.

C. Building Types

1.a - Residential Low-Rise (cont.)

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, Part D - Massing & Building Configuration*.
- 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 D.4.e*.
- 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. See *Chapter 4, Part D.3.e - Rooftops & Mechanical Penthouse Enclosures*.

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 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 is no alley access, parking should be at the back of 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: Should be from alley. Otherwise: 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, Part E.1*.

4. Sustainability

Development should meet the criteria listed below for each project type, and be consistent with the City's sustainability policies:

- A. Single-family houses: LEED for Homes Certified performance level, an Ecohomes Very Good rating, or equivalent.
- B. Multifamily: Enterprise Green Communities criteria, or according to the Green Multi-family Design Guidelines by the California Integrated Waste Management Board, or LEED Certified performance level or equivalent.

5. Historic Neighborhoods

New residential buildings in Historic Districts should be designed in a manner sensitive to the dominant characteristics of the surrounding Historic District. This requires coordination with Preservation staff.

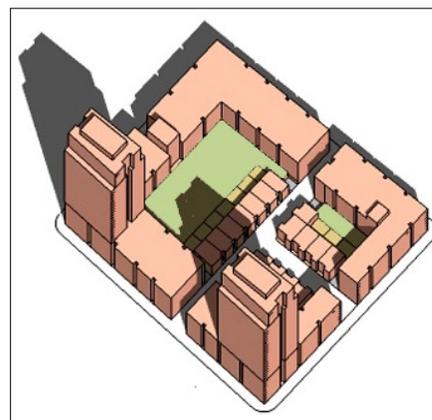


Figure 1. In the River District, a mix of residential building types, within the same block, is both typical and appropriate. This block depicts mid/high-rise towers and low-rise multi-family buildings, with mews townhouses lining the alleys.

C. Building Types

1.b - Residential Mid-Rise

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

Rationale

This section covers projects which range from 50-100' in height, and are primarily residential though it is preferable that they 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 (typically concrete/steel or steel/metal stud respectively) construction. The following guidelines are recommended for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Zoning Code.
- B. Setbacks: Should be consistent with adjacent buildings and Zoning Code. Otherwise:
 - 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): See *Chapter 4, Part B.2 Lot Coverage* and Zoning code.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: As per Zoning Code; otherwise 50 sf per DU
 - ii. Common Open Space: As per Zoning Code; otherwise 80 sf per DU
- E. Public Open Space: Coordinate with City Parks Department for Requirements
- F. Landscaping: Required in all setback areas. Design to CPTED standards.

2. Massing & Building Configuration

- A. Height Limits to plate line: Generally 75' to top of highest occupied floor; 100' max overall. See illustrations page 4-16.

Mid-Rise Residential Massing Diagrams



Figures 1 and 2. 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.

- B. Bulk controls: See *Chapter 4, Part D.3*.
- C. Facades:
 - i. Ground level uses: Should be residential or mixed.
 - ii. Transparency: Any nonresidential ground floor use (except parking and servicing) shall 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, and designed to CPTED standards.
 - v. Entries: Entry locations should be obvious, easy to find, clearly visible from the sidewalk, and safe. Double height entries are encouraged. Recessed entries are discouraged.

C. Building Types

1.b - Residential Mid-Rise (cont.)

D. Fenestration & Windows: See *Chapter 4, Part D.4.e.*

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. Reference *Chapter 4, Part D.3.e - Rooftops & Mechanical Penthouse Enclosures* for further elaboration of the subject.

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 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: Should be from alley. Otherwise:
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, Part E1.*

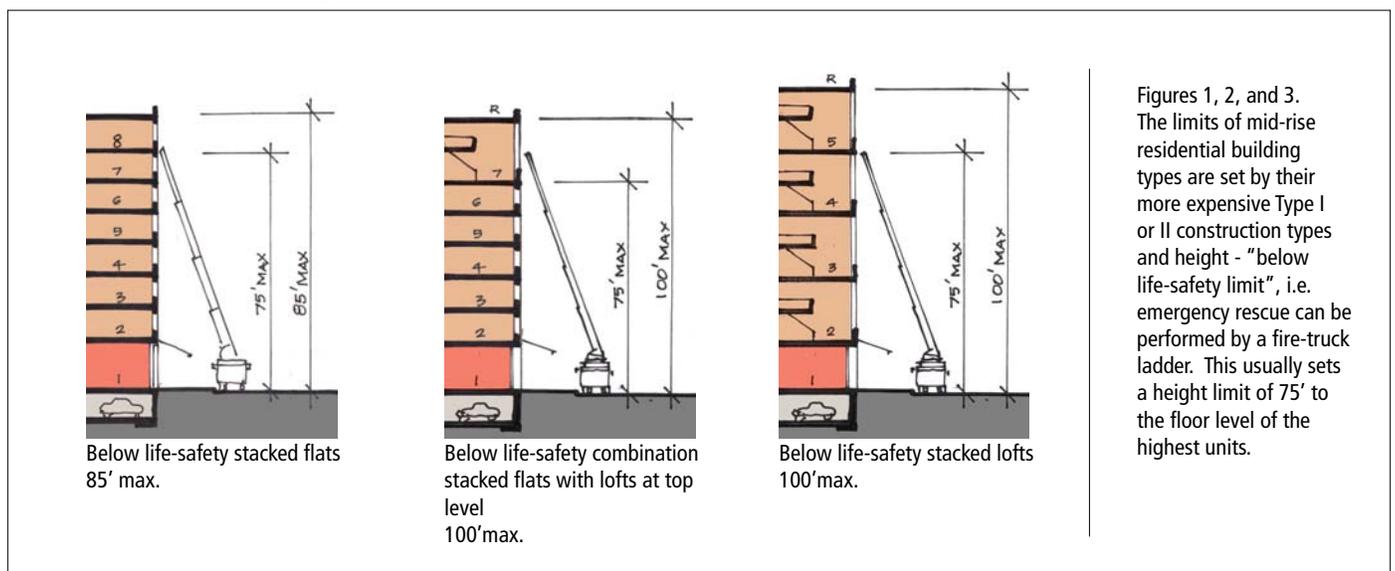
4. Sustainability

Development should meet the criteria required for LEED certification (or another appropriate rating system) at a minimum.

5. Historic Neighborhoods

- A. New mid-rise buildings in Historic Districts should be designed in a manner sensitive to the dominant characteristics of the surrounding Historic District. This requires coordination with Preservation staff.
- 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 denial of a project, but rather design quality. The City of Sacramento's Historic Preservation director shall be consulted on an acceptable solution for this building type in an Historic District.

Mid-Rise Residential Building Types & Height Limits



C. Building Types

1.c - Residential High Rise

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

Rationale

This section 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 recommended for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Zoning Code.
- B. Setbacks: Should be consistent with adjacent buildings and Zoning Code. Otherwise:
 - 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 for blank wall; 15' for wall with windows; minimum 80' between adjacent tower sides
 - c. Back: 30' between adjacent tower sides; otherwise 6' from alley
- C. Lot Coverage (above parking): See *Chapter 4, Part B.2 Lot Coverage* and Zoning code.
- D. Private Open Space: Either option listed below:
 - i. Private Open Space: As per Zoning Code; otherwise 50 sf per DU
 - ii. Common Open Space: As per Zoning Code; otherwise 80 sf per DU
- E. Public Open Space: Coordinate with City Parks Department for Requirements and designed to CPTED standards.
- F. Landscaping: Required in all open spaces and designed to CPTED standards.

High-Rise Residential Massing Diagrams



Figures 1 and 2. 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.

C. Building Types**1.c - Residential High-Rise (cont.)***2. Massing & Building Configuration*

- A. Height Limits: As allowed by Zoning Code.
- B. Bulk controls: above the street-wall height of 60', bulk controls apply, related to tower heights as follows (refer also to *Chapter 4, Part D.3 - 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'
- » 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) shall 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. The lighting design should focus light on the building and avoid light pollution. See the IESNA's Recommended Practice RP-33-99: "Lighting for Exterior Environments", Section 5.1.
- 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 commercial office buildings.

D. Fenestration & Windows: *See Chapter 4, Part D.4.e.*

- 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. Reference *Chapter 4, Part 3.2 Rooftops & Mechanical Penthouse Enclosures* for further elaboration of the subject.

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, Part E1.*
- D. Vehicle Access: Facing street: One 20' curb cut per lot, other than alley access.

4. Sustainability

Development should meet the criteria required for LEED certification (or another appropriate rating system) at a minimum.

C. Building Types

2.a - Commercial Low/Mid Rise

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

Rationale

This section covers low-rise commercial buildings, to a maximum height of 85'. These building type ranges from multi-tenant office space to highly tailored, custom designed green buildings for specific tenants. These buildings typically have a single use as commercial office space, although other supporting uses may be accommodated on the ground floor, like retail or food services, if the building is located in a busy district. To meet the 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, with construction in steel or concrete frame. The following guidelines are recommended for this category.

Guidelines

1. Site planning

- A. Location: As allowed by Zoning Code.
- B. Setbacks: Should be consistent with adjacent buildings and Zoning Code. Otherwise:
 - I. In residential areas:
 - a. Front: 5'-15'
 - b. Side: 5'-15'
 - c. Back: 10'
 - II. In mixed-use & commercial areas:
 - a. Front: 0'-10'
 - b. Side: zero setback allowed
 - c. Back: zero setback allowed
- C. Lot Coverage: As per Zoning code.
- D. Open Space: May be Private / Common or Public. Should be included as a figurally shaped open space, visible from street (see Figure 1).

Low-Rise Commercial Massing Diagrams

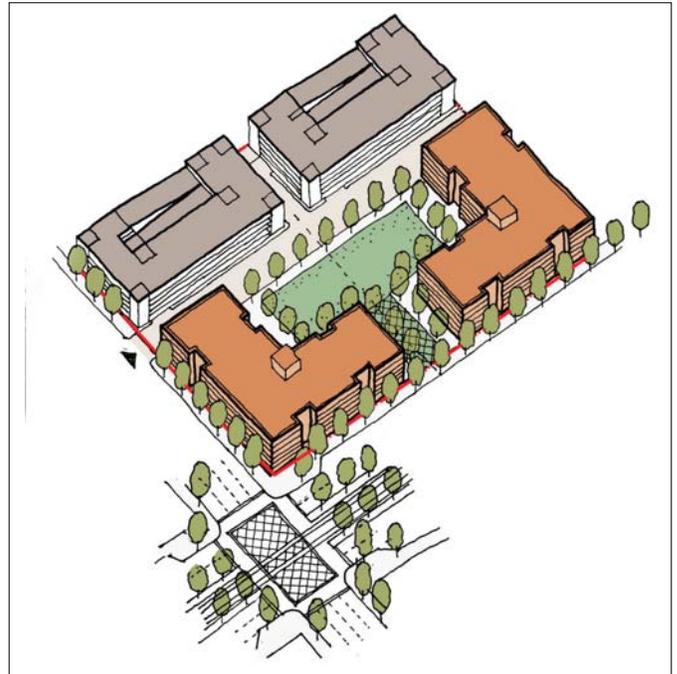


Figure 1. Low-rise commercial buildings should be placed along the Build-to line, with little setback required. Their massing should form figural (shaped like a "figure" or volume) open spaces. High parking ratios require structured parking, often almost equivalent in gross square feet to the office 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.

C. Building Types

2.a - Commercial Low/Mid-Rise (cont.)

- E. Public Open Space: Required, see River District SPD.
- F. Landscaping: Required in all open spaces and designed to CPTED standards.

2. Massing & Building Configuration

- A. Height Limits: up to 85'
- B. Bulk controls: See *Chapter 4, Part D.3.*
- C. Facades:
 - i. i. Ground level uses: Any retail uses within the building should open to the street, rather than to an internal atrium.
 - ii. ii. Transparency: At least 40% transparent.
 - iii. iii. Articulation of street-wall: Articulations should be spaced no further than 40' o.c.
 - iv. iv. Lighting: Should be appropriate to the ground floor uses, and respectful of adjacent property uses. Paths to/from parking shall be well-lit.
 - v. 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 D.4.e.*
- 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. Reference *Chapter 4, Part D.3.e - Rooftops & Mechanical Penthouse Enclosures* for further elaboration of the subject.

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 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, Part E.1.*
- 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 meet the criteria required for LEED certification (or another appropriate rating system) at a minimum.

5. Historic Buildings and Neighborhoods

- A. New low/mid-rise commercial buildings in Historic Districts should be designed at street level in a manner sensitive to the architectural character of the surrounding Historic District. This requires coordination with Preservation staff.
- B. If well-designed, low/mid-rise commercial buildings can be complimentary to and enhance the character of historic districts, although significantly taller than their surroundings. Many historic neighborhoods in the city have historic mid-rise buildings in the 50' - 100' range of exceptional quality and character. Height alone should not be cause for denial of a project, but rather design quality. The City of Sacramento's Historic Preservation director shall be consulted on proposals for this building type in an Historic District.

C. Building Types

2.b - Commercial High-Rise

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

Rationale

This section covers projects which are in excess of 8 stories, typically 150' to 200' high in the River District. High rise commercial office towers (which include hotels) 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. As allowed by Zoning Code.
- B. Setbacks: Should be consistent with adjacent buildings and Zoning Code. Otherwise:
 - 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: zero setback allowed
 - d. 80' min. setback between towers
- C. Lot Coverage (above parking): As per Zoning code.
- D. Open Space: Not required.
- E. Public Open Space: Not required.
- F. Landscaping: Required in all open spaces, designed to CPTED standards.

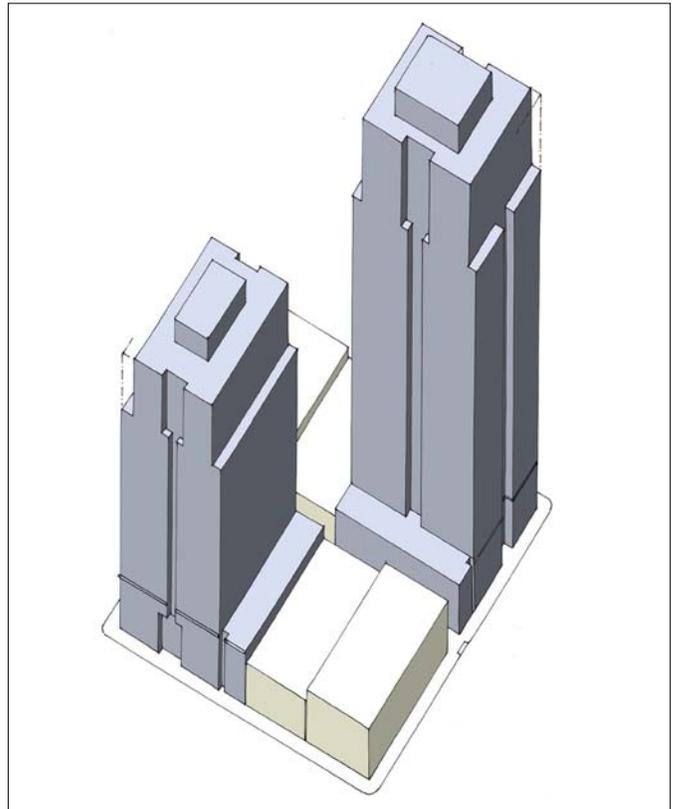


Figure 1. These diagrams illustrate the building volume used by a commercial office building in Sacramento. The left and right towers each start as a 1/4 block (25,600 sf) parcel; and completely fill the site to the base height of 85'. From there, each steps back to a maximum 20,000 sf floorplate, which rises until the top 20% of the building, where a 10% bulk reduction is required.



Figures 2 and 3. 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.

C. Building Types

2.b - Commercial High-Rise (cont.)

2. Massing & Building Configuration

- A. Height Limits: As allowed by Zoning Code
- B. Bulk controls: See *Chapter 4, Part D.3*. Generally, above the street-wall height of 80', 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 stepback 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 stepback 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. The lighting design should focus light on the building and avoid light pollution. See the IESNA's Recommended Practice RP-33-99: "Lighting for Exterior Environments", Section 5.1.
 - 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, Part D.4.e*.
- 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. Reference *Chapter 4, Part D.3.e - Rooftops & Mechanical Penthouse Enclosures* for further elabora-

tion of the subject.

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, Part E.1*.
- D. Vehicle Access: Facing street: One 20' curb cut per 25,000 gsf of parcel area, other than alley access.

4. Sustainability

Development should meet the criteria required for LEED certification (or another appropriate rating system) at a minimum.

5. Historic Buildings and Neighborhoods

- A. New high-rise buildings in Historic Districts should be designed at street level in a manner sensitive to the architectural character of the surrounding Historic District. This requires coordination with Preservation staff.
- B. If well-designed, high-rise buildings can be complementary to and enhance the character of Historic Districts, although significantly taller than their surroundings. Many historic neighborhoods in the city have historic high-rise buildings which exceed 100', which are often considered some of the city's defining buildings, e.g. 926 J Street and the Elks Club building at 921 11th Street. Height alone should not be cause for denial of a project, but rather design quality. The City of Sacramento's Historic Preservation director shall be consulted on proposals for this building type in an historic district.

D. Massing and 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 River District.

Categories of guidelines include:

1. Building Component & Term Illustrations
2. Street Wall & Building Base Height
3. Massing & Bulk Controls
4. Façades
5. Rooftops & Mechanical Penthouse Enclosures
6. Development along Alleys
7. Sustainability
8. Public Art in the Private Realm

Massing & Building Configuration discusses seven categories of building design which together allow individual buildings to create and define the public realm as envisioned according to the Vision and Framework for the River District. The Categories, taken together, will work to deliver architecture and urban design in line with both City policies and best practices as witnessed in the similar areas of other thriving and successful cities.

Street Wall & Building Base Height

Sacramento's public realm is defined by the buildings that surround it and the "street-walls" that the buildings collectively create. The street-wall is the line of buildings along a street edge that establishes the predominant definition of the public space. The placement, scale and design quality of the building's street-wall determines the nature and character of the streetscape and reinforces desired pedestrian or broader public realm objectives. Generally, a consistent street-wall contributes to a clearer public realm identity and a more comfortable pedestrian experience. Unlike the older historic commercial buildings in the Central Core which create well-defined street walls and visually accessible ground floor uses, the River

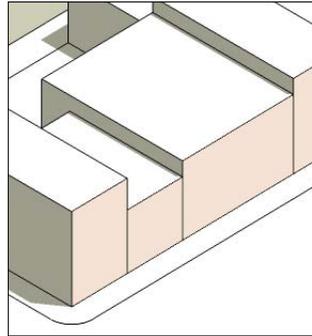


Figure 1. Building Component and Term Illustrations



Figure 2. Street Wall and Building Base Height

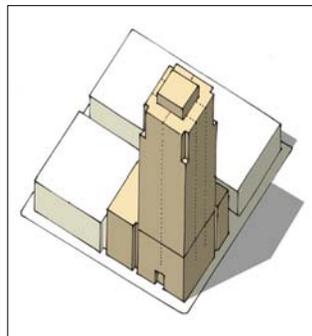


Figure 3. Massing & Bulk Controls

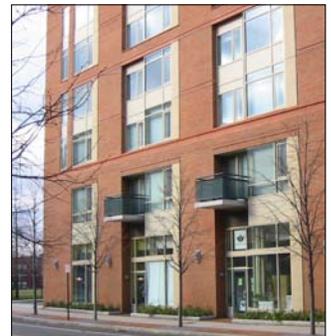


Figure 4. Façades



Figure 5. Rooftops and Mechanical Penthouse Enclosures



Figure 6. Development Along Alleys



Figure 7. Sustainability



Figure 8. Public Art in the Private Realm

D. Massing & Building Configuration

district will establish a streetwall appropriate for the scale of buildings and width of streets, this generally to be set at 40 feet in height. Buildings that do not hold the street wall detract from the definition and quality of the public realm. The height of the street-wall at the setback or build-to-line is also an important element in shaping the character of the public realm. In combination with the width of the public street right-of-way, it is a primary factor in giving scale to the public realm and ensuring a comfortable human-scaled street enclosure.

Massing & Bulk Controls

As the River District matures and incorporates more mid- and high-rise structures, the massing, bulk, and separation of buildings will become important. Densely packed massing can have numerous adverse effects: decreasing solar access; increasing wind tunnel effects; creating a visually oppressive public realm; and, with the introduction of residential towers, creating privacy conflicts. In order to protect views, solar access, air circulation, the quality of the public realm, and the character of the skyline, the new guidelines mandate a two-tiered approach that requires smaller floorplates for all towers, and smaller floor plates for residential towers.

Façades

After Massing & Bulk Controls, Façade design will have the most impact on a city's urban and architectural character. Categories in this section to address a range of issues – materials, uses, articulation, fenestration & transparency, projections – that will ultimately give the building its look and feel. Criteria in this section offer a range of possibilities for designers to consider during the review and decision-making process, as a basis for what are some expected minimum outcomes of their proposals. This section, more than any other, should be considered a guide to minimum expectations rather than as limitations or prescriptive requirements.

Rooftops & Mechanical Penthouse Enclosures

Rooftop design should be integrated into the overall design scheme of the building, especially for buildings which exceed the height of the City's tree canopy. In addition to the desire to design a form that will be a distinctive & memorable contribution to the city skyline, rooftop design balances and integrates other competing demands, including servicing and life-safety requirements and open

space possibilities.

Development along Alleys

As a city-wide resource, Sacramento's alleys provide a literal network of development opportunity. If properly utilized and enhanced, this can become the location for residential, commercial and retail development of a different yet complementary character to that of the existing River District. Smaller scaled and intimate in contrast with the width and scale of the primary vehicular streets and urban frontage, the alley system can offer the city a distinctive urban experience, unique to Sacramento. (See Ch 3 Alleys)

Sustainability

As the center of the city and the region, and the State's Capitol, Sacramento should be the main stage for demonstrating how to create a sustainable city. The amount of development projected for the River District provides a unique opportunity to promote more energy and resource efficient buildings, support greater recycling and waste reduction, and create greater biodiversity within the urban setting. A Sustainable River District should achieve measurable goals in terms of the performance of its buildings. New development should take a comprehensive and measurable approach to sustainability. All development should meet the criteria required for LEED certification (or another appropriate rating system) at a minimum. The Sustainable Design of buildings requires an evolving palette of design tools. Some tools require the application of common sense and best practices for the region. Others require designers to incorporate the latest technologies for mechanical systems and material use.

Public Art in the Private Realm

Artwork provides a building with an enhanced opportunity to contribute to the decoration of the City, to enhance the public and private realms. Whether required as part of a Public Art program or not, an art component should be incorporated into the architecture of the building, in a complimentary way. These integrated strategies – including sculptural relief panels, architectural ornaments, murals and mosaic – ensure that the initial investment can contribute to the long term civic art program for the City.

D. Massing & Building Configuration

1. Building Component and Term Illustrations

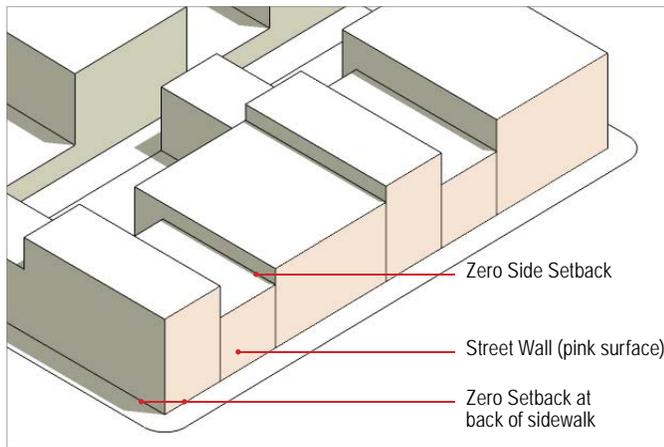
Rationale

Some terms discussed in this section are illustrated and identified below, and clarify architectural, urban design, and planning terminology.

Building Components & Terms

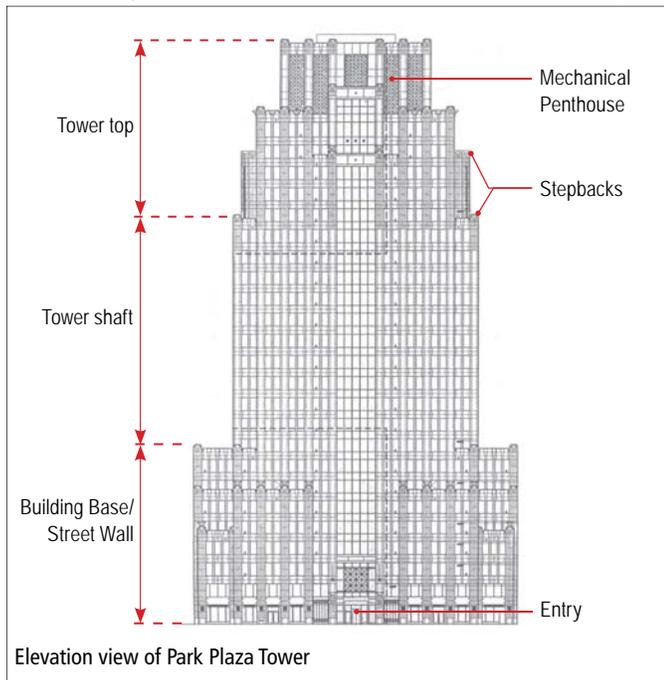
Street Wall & Setbacks

Figure 1



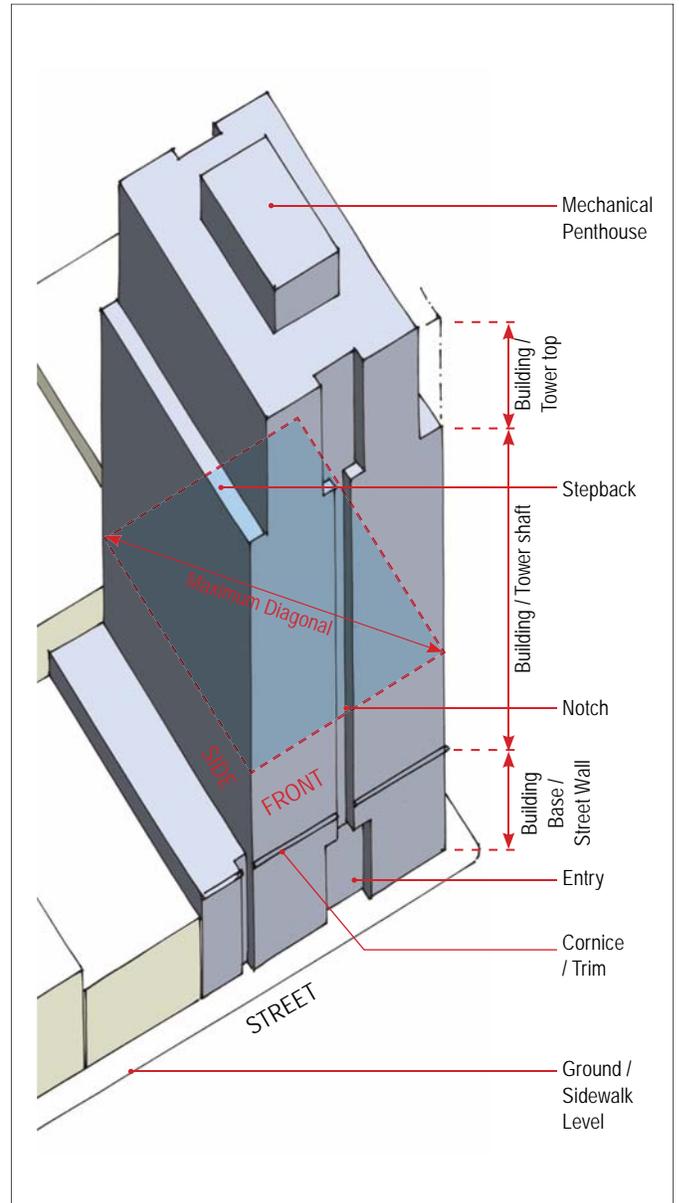
Tower Components

Figure 2



Building & Bulk Control

Figure 3



D. Massing & Building Configuration

2. Street Wall and 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 and defined articulation.

Rationale

The public space of the street is defined by the buildings and, in Sacramento's residential areas, by tree canopies. The River District does have a fairly consistent building height, but only in the North 16th Street Historic District, can one discern an actual street wall in part. As the District develops, there is an opportunity to create more regular street wall heights. A building base height established at approximately 50', or 3 stories would be appropriate for much of the River District where typical local streets are 68 ft wide. This produces a street section with 3:4 proportions (see Figure 2). On streets of 80 ft the street wall shall not exceed 65 ft. On streets wider than 100 ft, the street wall height shall not exceed 85 ft.

Guidelines

- A. In order to support a pedestrian-oriented public realm, retail and commercial streets should be framed by buildings uniformly placed at the sidewalk with no setback. In other areas that are more residential or institutional in character, street-wall setbacks should reflect the predominant historic development pattern.
- B. The height of the street-wall is an important element in shaping the character of the public realm. Buildings which are taller than the preferred street wall height in their particular corridor should be articulated at the top of the street wall height, or stepped back, in such a way as to ensure the visual primacy of the street wall's building base height. Above the building base height, bulk controls apply. See *Part D.3 - Bulk Controls*.
- C. Breaks in the street walls within a development block or site should employ plantings, walls, archways, fences, or other features to maintain the spatial definition of the street edge.
- D. A building may have multiple horizontal course articulations in order to pick up the articulations or heights of adjacent buildings. See Figure 3.

Building Base Height

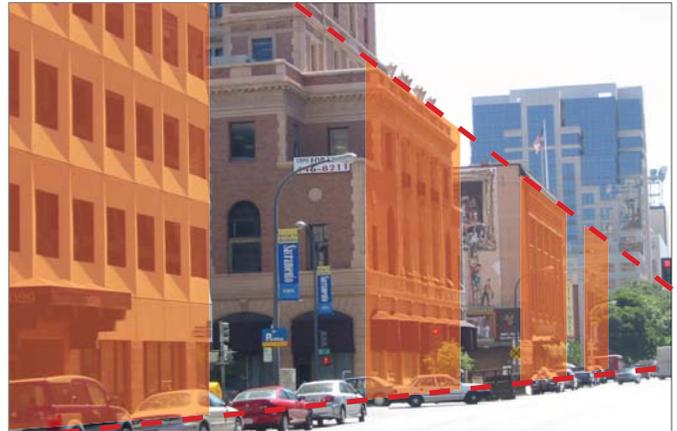


Figure 1. Consistent building wall defining the space of the street, as seen along J Street.

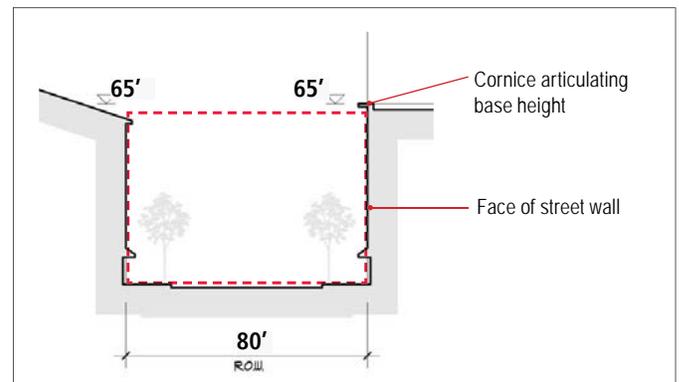


Figure 2. Street section with 3:4 proportions, with cornice articulation defining building base height.



Figure 3. A consistent streetwall is maintained in the 1400 block of R Street with four individual 20th century warehouse buildings.

D. Massing & Building Configuration

3. 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.

Rationale

As the River District matures and incorporates more and more mid- and high-rise structures, their massing and separation will become an important issue to address. Densely packed towers can have numerous deleterious effects: decreasing solar access; increasing wind tunnel effects; creating a visually oppressive public realm. Two recent buildings stand out – the EPA headquarters and the Courthouse. Though they are fine pieces of architecture, their towers' east-west slab configurations create severe shadow impacts on the adjacent neighborhoods to the north. And with the introduction of residential towers, privacy conflicts are created. In recognition of these issues, many cities are adopting the approach pioneered by Vancouver to require slenderer towers with greater separation between them which will add in maintain view corridors to the rivers, Downtown, and the Sierra mountains.

Guidelines

Floor-plate Size

In order to protect views, solar access, air circulation, the quality of the public realm, and the character of the skyline, these guidelines require high-rise buildings use small to medium sized floorplates. This reduction allows the generous floor-plates required for certain buildings, but reduces the building dimensions enough to produce a slenderer appearing profile up to the maximum height limits in the River District. The guidelines also encourage even smaller floor-plates where possible, not just for aesthetic reasons, but also to facilitate more energy efficient buildings that provide better natural lighting and ventilation possibilities. Massing and building configuration are directly related to the size of the building's floor-plates, and the ability of those floorplates to repeat as they rise up. That ability is different for commercial office and residential buildings.



Figure 1. Aerial view of the Downtown, focusing on Cesar Chavez Plaza. This picture emphasizes the dramatic shadows cast by wide-floorplate buildings.



Figure 2. Vancouver, BC, requires slenderer towers with greater separation between them.

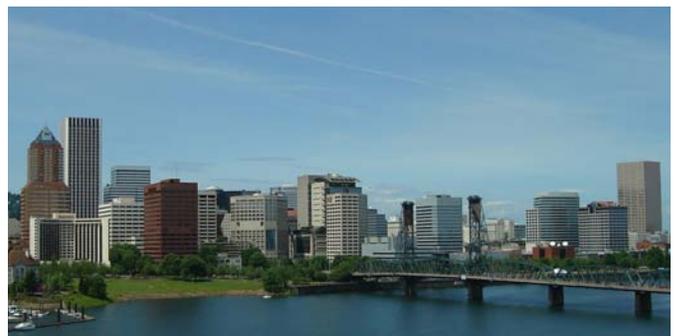


Figure 3. Portland, OR, has small urban blocks. The more recent high-rise residential and office buildings have transitioned away from the full-block model and towards narrower, more elegant, and more articulated designs.

D. Massing & Building Configuration**3. Bulk Controls (cont.)***Building Stepbacks*

The requirements for stepbacks should acknowledge the differences between building programs. Commercial buildings can accommodate step-backs of their upper floors within their massing without compromising the integrity of the internal spaces. High-rise residential floor plans are normally stacked one above the other without step backs. The depth of residential floor plans rarely has the ability to vary from floor to floor. This integral consistency results in a vertical facade for the majority of the building's height. It is for this reason that the design guidelines do not require residential towers to step-back their floors above the street-wall base height.

An unfortunate drawback of requiring stepbacks is that stepbacks permit, and by default encourage, 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 *Chapter 4, Section E - Parking & Vehicle Access.*)

In principle, stepbacks - the process of stepping back a building's bulk at designated height thresholds - are not required from the street-wall (except as required in the Zoning Code). However, bulk-reduction stepbacks are required at the top 20% of high-rise buildings

Tower Separation

As the River District becomes a district with a higher concentration of high-rise buildings, greater setbacks are recommended for all the same reasons for reducing floor-plate size. Future commercial and residential towers should be required to maintain at least an 80-foot setback from adjacent towers, the width of a typical Sacramento Central City street, in order to ensure protection of views and privacy. See *Part D.3.c - Bulk Controls - Tower Separation & Height Differentiation.*

At the edge of rivers, highrise towers should be separated a minimum of 200 feet to ensure open views and reduce shadow impacts in these areas.



Figure 1. View of the River District, from the top of the Empire Building, looking west. These buildings employ a variety of stepback strategies, ranging from stepbacks only at the top to frequent stepbacks applied at various stages of as the buildings rise.



Figure 2: High-rise residential buildings- shown here in downtown San Diego- typically have minimal ability to accommodate stepback recommendations, due to the requirements for residential units to "stack" in a repetitive fashion. Massing articulations are often found in balcony and terrace configurations.

D. Massing & Building Configuration

3. Bulk Controls (cont.)

Tower Proportion

Tower proportion is the relationship of floor plate width to height. These guidelines are set according to building type and height. Residential high-rises in the District will be about 2.6:1 for 240' high buildings. A series of given height thresholds are set, each with maximum floorplate dimensions (plan and diagonal) and illustrated in the following section, *D.3a and D.3b - Bulk Controls for Residential and Commercial Buildings*. These proportions and maximum floorplate dimensions ensure the avoidance of stocky or bulky buildings that block views and cast overwhelming shadows on the streets and sidewalks.

Alternative Designs & Flexibility Regarding Bulk Controls

The Bulk Control Guidelines are intended to be a framework and basis for the review of projects by the City of Sacramento. Staff will review a project for overall compliance to ensure it meets the intent of the design criteria set forth in this document. As such, alternative designs that can be proven to achieve the design principles in some form will also be considered by City Staff.

Alternative Designs may be appropriate when the proposed design provides equal or greater amenities and benefits to compensate for areas of the project design not in compliance. Projects that do not adhere to the Bulk Control criteria set forth in this document should ensure, at a minimum, that tower designs take into consideration shadow casting, heat island effect, solar orientation, wind tunnel effects, prevailing winds, as well as view sheds.

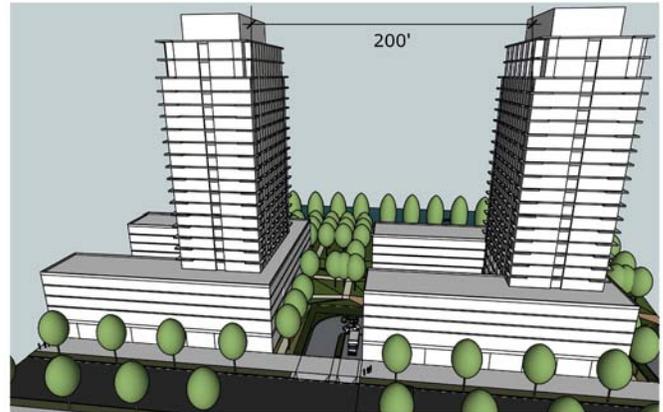


Figure 1: Tower separation at the riverfront shall be a minimum of 200 feet with separation at the base for public access to the river.



Figures 2 and 3: Two approaches to stepbacks are illustrated by two of Sacramento's signature historic buildings, the Elks Club and 926 J Street (now the Citizen Hotel). Both designs delineate the base, tower shaft, and top. Whereas the Elks club uses stepbacks at each location, 926 J Street uses cornices and string course to articulate its massing.



Figures 4 and 5: Two views of a new 25-story high-rise residential tower in London. The floorplates have no stepbacks until the top eight stories, where the "bundled" vertical masses successively end, creating terraces for the upper floors.

D. Massing & Building Configuration

3.a - Bulk Controls - Residential and Residential/Mixed-Use Buildings

Residential Bulk Controls

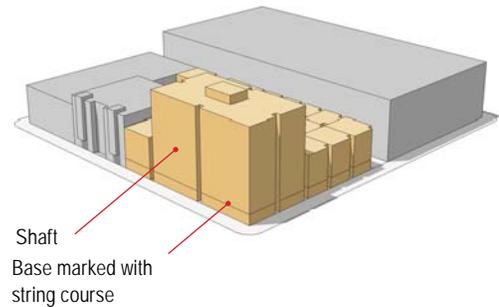
The allowable bulk of residential development varies by project height. The urban role of low-rise buildings is primarily to hold the street-wall, while high-rise buildings should be tall, slender, and well-proportioned. The design of high-rise buildings should establish or continue the urban street-wall as well as contribute a significant form to the city skyline. Bulk controls thus specifically govern floorplate area, maximum plan dimensions and bulk reductions relative to height.



Figure 1. Various bulk reduction strategies employed on residential developments in San Diego, CA.

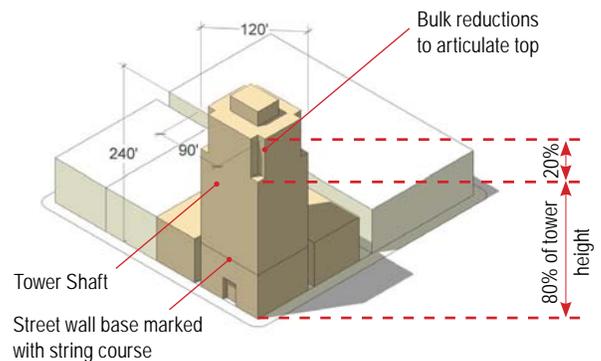
1. Low & Mid-Rise (Up to 85' / Life-safety limit height):

- i. No bulk reduction required
- ii. No stepback from street required



2. 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 stepback from street required at street wall base height



D. Massing & Building Configuration

3.b - Bulk Controls - Commercial Office and Commercial Office / Mixed-Use Buildings, and Hotels

Commercial & Commercial/Mixed-Use Buildings

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

- i. No bulk reduction required
- ii. No stepback from street required

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

- iii. No bulk reduction required
- iv. No stepback from street required

3. High Rise - Above 85' height

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

Typical Bulk Controls for Commercial Office and Commercial Office / Mixed-Use Buildings, and Hotels

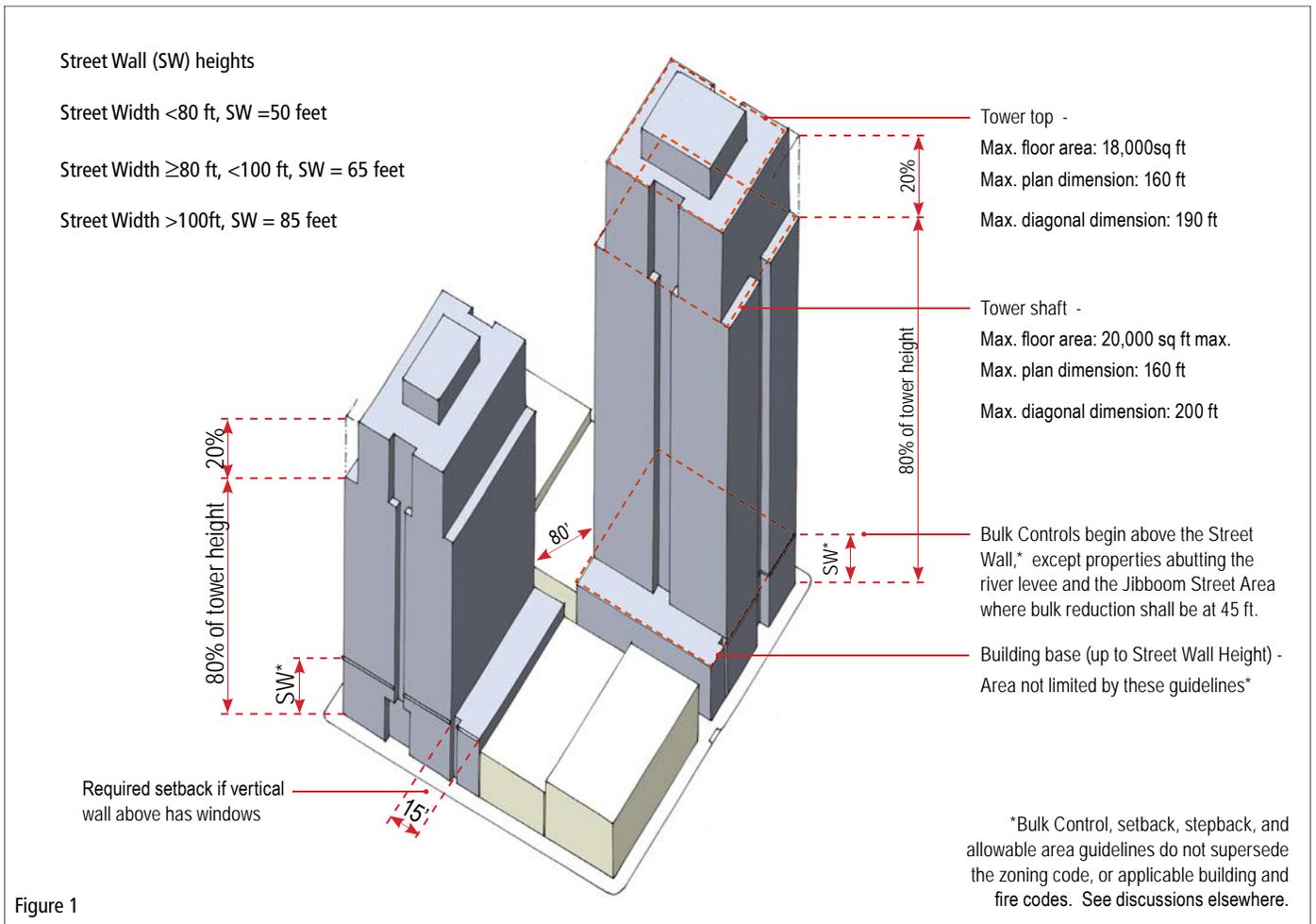


Figure 1

D. Massing & Building Configuration

3.c - Bulk Controls - Tower Separation and 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 a typical 80 foot-wide street; and a tower shall be distinct in size/ scale from those adjacent to it.

Rationale

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 commercial zone of the River District. 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 (200' along the riverfront). This applies to existing and new residential towers, including where multiple towers are part of the same design scheme / development and applies to the street right-of-way in the River District which may be less than 80 feet in width.

After the 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 diminish view blockage and preserve sky exposure at street level.

2. Along the riverfront, towers should be staggered to maximize the viewshed of each tower.

The curvilinear form of the riverfront should be followed in the placement of towers to ensure that view corridors remain open

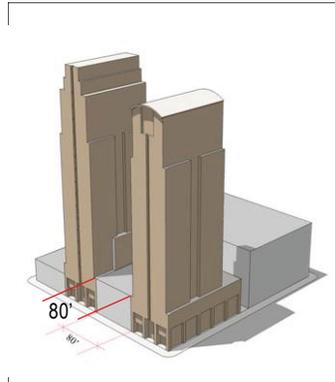


Figure 1: Typical permitted tower spacing



Figure 2: Residential tower spacing in downtown San Diego, CA.

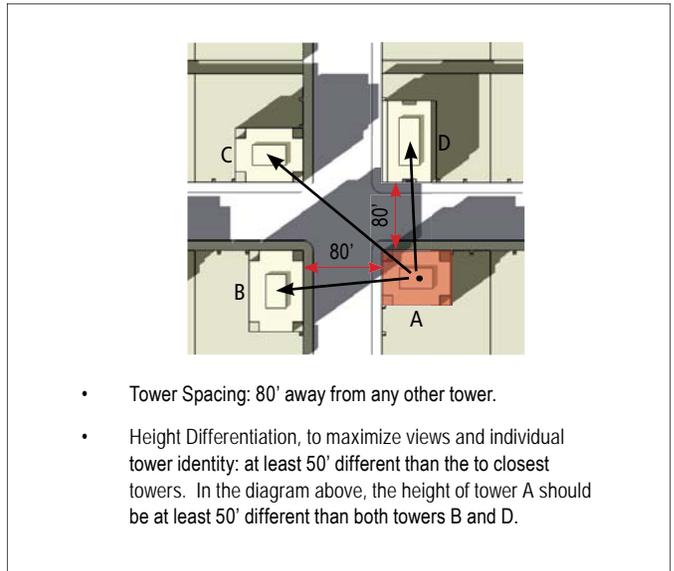


Figure 3: Towers should be spaced at least 80' apart from each other - the equivalence of the predominant Central City street width - and vary considerably in height from those closest to it.

3. 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 3, if towers B, C and D are existing, new tower A should be approximately 50' shorter or taller than both tower B and tower D.

D. Massing & Building Configuration

3.d - Bulk Controls - A Distinctive Top

PRINCIPLE: River District highrise buildings shall terminate with a distinctive top, to contribute to an architecturally dynamic city skyline.

Rationale

Tower Articulation - A Distinctive Top

There is a well established architectural tradition of high-rise buildings having a distinctive top terminating the tower. Sacramento has many fine examples of this design strategy, from the historic Elks Lodge of 1926 to 621 Capitol Mall, completed in 2008 and the River District will make its own unique contribution to our City skyline.

Guidelines

To achieve a distinctive top, a 10% bulk reduction for the top 20% of the building height is required. This helps define an upper / 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. Consideration should be given to various ways of handling this design element without compromising safety or creating a monotonous skyline. (See Photos, this page)

Designs should avoid flat topped profiles, which make a building look stocky and top-heavy.

Commercial hotel towers in the Jibboom Street area may receive a height incentive for providing a public observation area or viewing deck which should be distinguishable at the building's top.

Tower tops



Figures 1, 2, 3, and 4. Bulk reductions and integrated mechanical penthouses contribute to the distinctive tops of these Sacramento towers. Figure 5. Observation balconies, Chicago's Sears Tower (renamed Willis Tower).



D. Massing & Building Configuration

3.e - Bulk Controls - Rooftops and Mechanical Penthouse Enclosures

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

Rationale

The roof levels of a building need to accommodate servicing and life-safety requirements, while retaining a form that will be a distinctive and memorable contribution to the city skyline. A key issue of rooftop design is balancing the integration of building services, such as mechanical and drainage systems, with building amenities, such as potential rooftop open space and natural cooling strategies, stormwater management, and, where applicable; design of the rooftop to reduce heat-island effect.

Guidelines

1. Mechanical Penthouses

Mechanical penthouses should be screened and integrated into the formal design of the building. See Figures 1-4.

2. 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% or the roof area, not including helicopter landing pads and occupiable roof terraces (in residential buildings only).
- C. Install photo voltaic panel arrays on at least 50% of roof areas.

3. Open Space

Roofs offer an excellent opportunity to provide users with common open space in the form of roof decks or gardens (where the roofs are not already planted for stormwater management purposes). If roofs are flat, designers should endeavour to make roofscapes occupiable by users. Publicly accessible roofs may help meet park requirements.

Rooftops



Figure 1



Figure 2



Figure 3



Figure 4

Figures 1, 2, 3 & 4. Mechanical penthouses at roof level integrated into the overall design of the building's massing and "distinctive top".



Figures 5. Green roof on an urban high-rise residential building.

D. Massing & Building Configuration

4.a - Façades - 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.

Rationale

In order to have lively mixed-use district retail areas, commercial and community uses are encouraged at sidewalk level, ensuring the maximum transparency and permeability of the street facade. Since the River District'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 River District area, ground floor uses should be retail, commercial, community or live/work. Ground floor retail location requirements are specified in the River District Special Planning District (SPD).

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'. Where mechanical venting is required, facade vents should be either at least 9' above the sidewalk level, or placed on a side elevation, away from pedestrian traffic.
- B. The ground floor elevation of a non-residential building is preferable to be flush with the sidewalk however, in no case should it be more than 2' above the adjacent sidewalk, and maintain handicap access.
- C. Main entrances for each use should be accessible from sidewalk level. See Figure 2.

3. Residential Uses

Residential ground floor uses in multi-family buildings, other than accessible units, 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 Figures 3 & 4. See also *Chapter 4, Part E.1- Parking & Vehicle Access*.

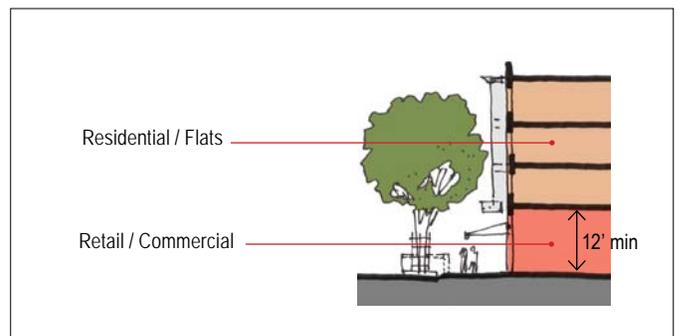


Figure 1. Ground floor mixed uses along retail street

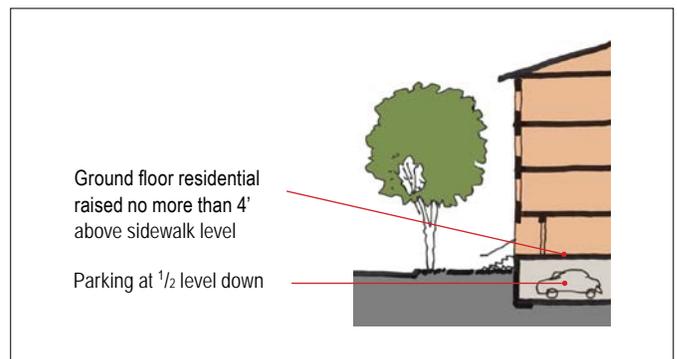


Figure 2. Residential street

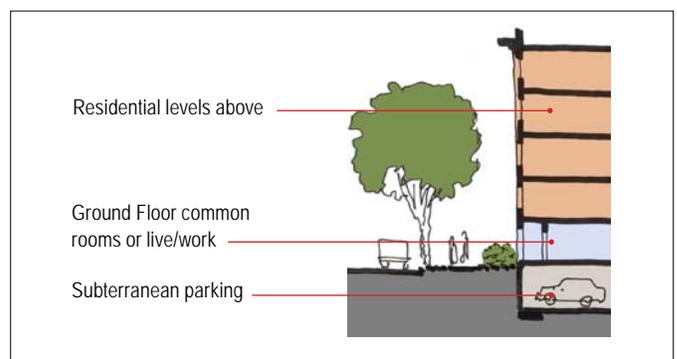


Figure 3. Residential street subterranean parking

D. Massing & Building Configuration

4.b - Façades - 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.

Rationale

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). These facades should also have a high degree of permeability (through doors and entryways).

Guidelines

1. Where retail, commercial, community or other active uses occur, the retail level facade should be 60%-75% transparent. See 4.a - Façades - Ground Level Uses for required locations per the retail front-age map
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 (e.g. residential or commercial office, etc.) level.
5. Doors should be spaced no more than 40' apart to ensure a high degree of permeability.
6. 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.
 - II. The wall should be either articulated or decorated with artwork, or both.

Ground Level Transparency



Figures 1 & 2: Appropriate levels of transparency need not require all-glass buildings. These two buildings - one an grocery store in a mixed-use development in Portland, OR, the other a retail chain store in San Francisco - both have appropriate and successful levels of ground floor transparency.

D. Massing & Building Configuration

4.c - Façades - 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.

Rationale

Sacramento’s urban blocks are historically divided into 40’ and 80’ wide lot increments. While the new blocks in the River District are not as uniform in size, the importance of scale and articulation of the streetwall 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, unarticulated façade planes should be limited in order to create visual variety and interest.

Guidelines

1. Vertical Articulation

Facade articulation elements should include notched set-backs, 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 facade of a commercial building should be limited to 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 facade sections should be at least 5’ deep and at least 10’ 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

Figure 1 illustrates how design strategies like rhythm and notching can be used to design large buildings where expansive and potentially repetitive facades can be challenging.

Articulation of street-wall

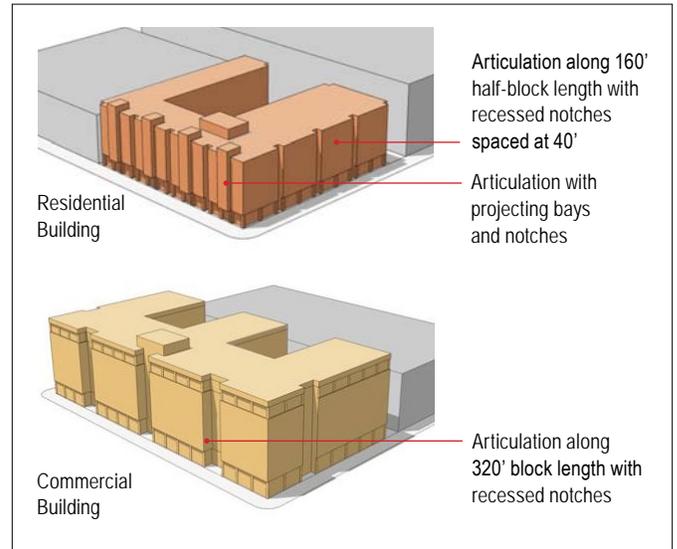


Figure 1: Projections & notches articulating the street wall.

Façade Articulation



Clockwise from top left.

Figure 1. Building facades should be inviting and engaging for people.
 Figure 2. The facade of One Hawthorne in San Francisco has vertical articulation in contrast to a flush glazing system and projecting exterior balconies.
 Figure 3. A wide street frontage is articulated with bay windows, projecting balconies, and recessed zones. The major massing articulations begin above the 2nd floor.



D. Massing & Building Configuration

4.d - Façades - Corners

PRINCIPLE: Building corners are a placemaking element that should be designed to accentuate the unique location of the urban corner.

Rationale

Building projects within the River District located on corner lots present an excellent opportunity to accentuate the unique location of the corner across the width and length of the urban block and at terminal views on diagonal intersections. Some urban corner design strategies include articulated corners, projecting and receding balconies, and accentuating features at various scales. See Figures 1-8.

Guidelines

Building projects located on corner lots should accentuate the corner’s unique location on the urban block. Buildings should use one or more of the following design strategies:

1. Articulated corners

Chamfered or rounded corners allow for a seamless transition from one street façade to the next. This is an especially good strategy where a corner entrance is used. Chamfered corners are illustrated in Figures 3, 4 and 7; rounded corners in Figures 5 and 8.

2. Projecting and recessed balconies and entrances

Projecting and recessed balconies and entrances allow for the corner to capture a volumetric expression distinct from the typically repeating elements of a façade. See Figures 1, 5, 7 and 8.

3. Accentuating features at various scales

Buildings may incorporate accentuating features at the building corner. These can be designed at various scales, from embellished doorways (see Figures 3 and 4), to material and volumetric manipulations (see Figures 1 and 6) to circular drums (see Figures 5 and 8). In some cases the entire building massing may transform to become a corner pavilion feature (see Figures 2 and 5).

4. Other Strategies

Other innovative design strategies which accentuate the corner may also be submitted for review.

Corner Strategies



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

These Sacramento buildings illustrate a variety of corner design strategies, including rounded and chamfered corners and accentuating features at various scales.

D. Massing & Building Configuration

4.e - Façades - Fenestration: Window and Facade Systems and 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.

Rationale

From the outside, windows give human scale to buildings, and animate façades 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 many 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 *Part 4.g - Canopies, Awnings & Sunshades*. 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 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.
3. Windows should be grouped to establish rhythms across the façade and hierarchies at important places on the façade. See Figure 3.

Window Types for the River District

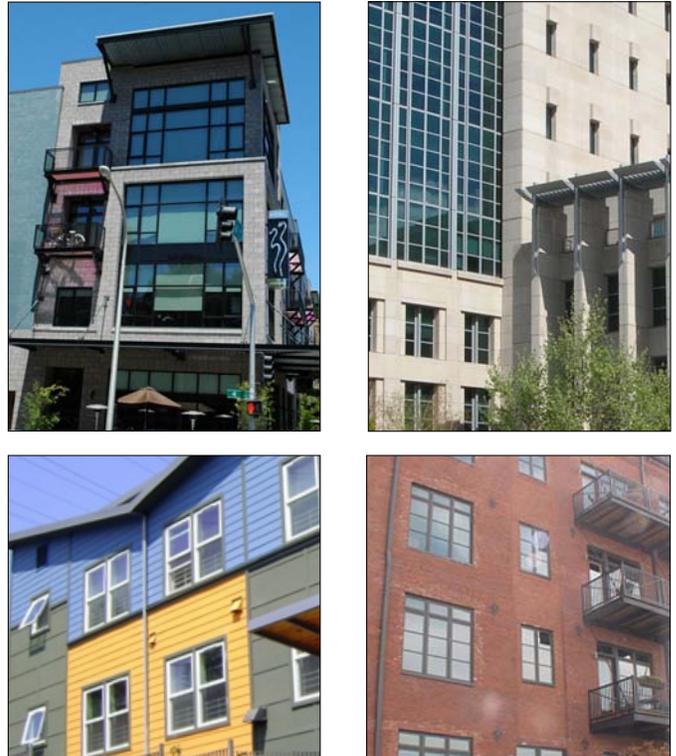


Figure 1 to 4. The River District will have a variety of window types consistent with the variety of building types throughout the District, including curtain wall / storefront systems within punched openings (top), operable sash windows residential windows and door systems (above left and right).



Figure 5. The windows in this mid-rise building provide operable window systems, which in the River District would be advantageous to collect delta breezes for occupant comfort.

D. Massing & Building Configuration

4.e - Façades - Fenestration: Window & Facade Systems & Patterns (cont.)

- 4. Curtain wall systems should be designed with projecting vertical and/or horizontal mullions (see Figure 3), or other modulating features.
- 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 1. 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 2. This university building in Cambridge, MA, has a repeating double window bay module which sets a rhythm across the facade, which is then interrupted by special conditions at the corner and above the entry.



Figure 3. This office building at 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.

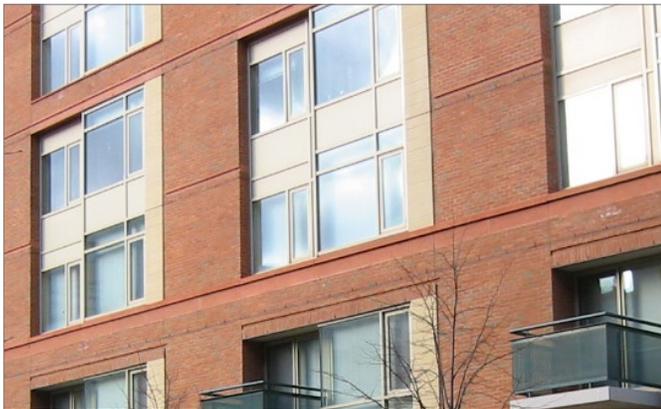


Figure 4. This project inserts a curtain wall system within a punched opening. The red brick wall turns to reveal the wall's thickness, and the curtain wall is placed at varying depths within the apparent thickness of the brick wall opening.



Figure 5. 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.

D. Massing & Building Configuration

4.f - Façades - 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.

Rationale

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 and 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 and 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 and legibility of signage and 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.

Entrances



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



Figure 2. This vertical drum punctuates the entry from the street, recessed beneath an archway.



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 with a simple storefront glazing system.

D. Massing & Building Configuration

4.g - Façades - 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.

Rationale

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. See Figure 1.

2. 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, or act as applied or detached elements. See Figure 2.

3. Awnings

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

4. Quality of Materials

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

5. Encroachments

A. All removable awnings, canopies, and sunshades

Canopies



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

Sunshades



Figure 2. Applied sunshading elements on a building at Stanford University, Palo Alto, CA.

Awnings



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

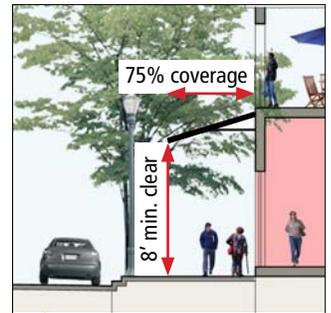


Figure 4. Awning section with minimum clear height above sidewalk & desired coverage.

require the issuance of a revocable encroachment permit.

- B. All permanent overhead fixtures such as awnings or overhangs (part of the building structure) which infringe into the City ROW require the execution of an encroachment agreement, to be handled on a case by case basis.
- C. At any time that any part of the actual building infringes into the City ROW the execution of an encroachment, agreement is required.