Chapter 4: Private Realm Guidelines

Contents

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**

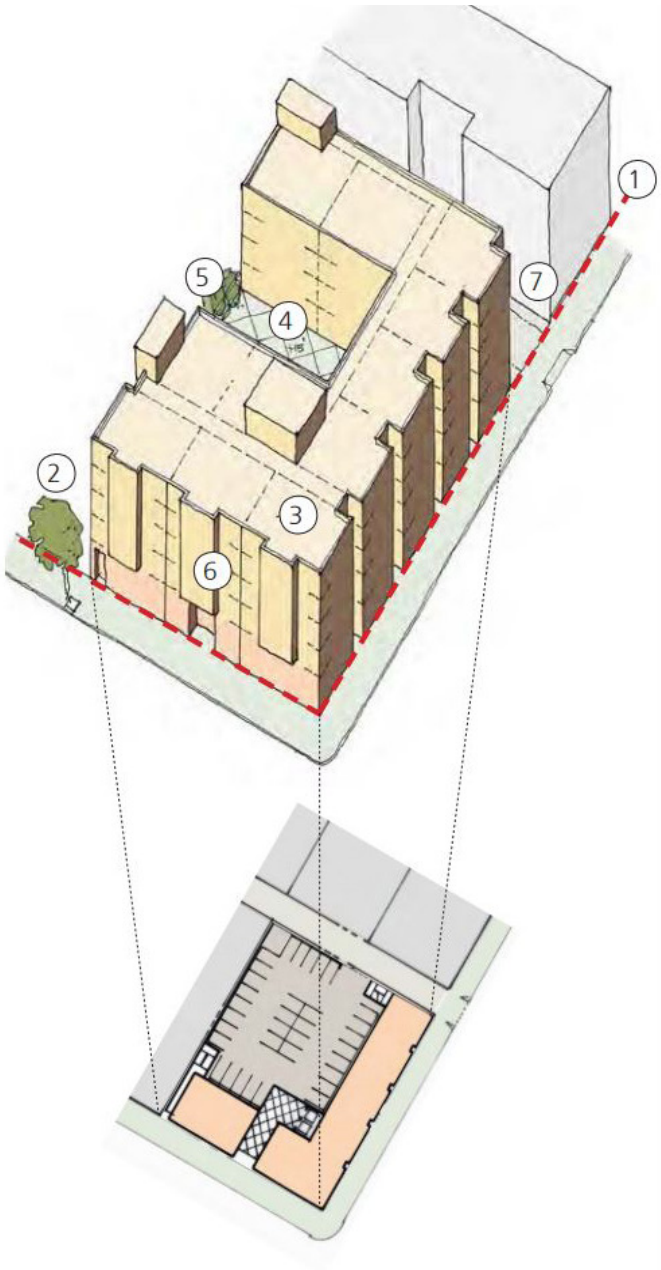


Figure 4-1

B.1. Setbacks and Build-to-Lines

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

Rationale

In order to create a coherent public realm throughout the city, the edge of the private realm should be established with consistently aligned building frontages. The amount of setback should be appropriate for the district. Depending on the intended character of the street, the space between the property line and the frontage line (typically referred to as the front setback) can be treated as an extension of the sidewalk, a discrete hardscaped area (e.g., with café space), or a landscaped area providing privacy for ground floor occupants. In the three-part anatomy of the sidewalk from Chapter 3, the setback area will likely constitute the "Frontage Zone" but in some cases may also contribute to the Pedestrian Zone. For example, buildings would have little or no setback in the Central Core, 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 Build-to-Line. In the Central Core, 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 Central Core locations, or a minimum percentage in other locations where a public plaza, for example, might be a desirable feature.

Required setbacks can permit the tree canopy of the existing mature street trees (which have been deemed healthy by a certified arborist) to remain unobstructed (See Chapter 4, Part B2).

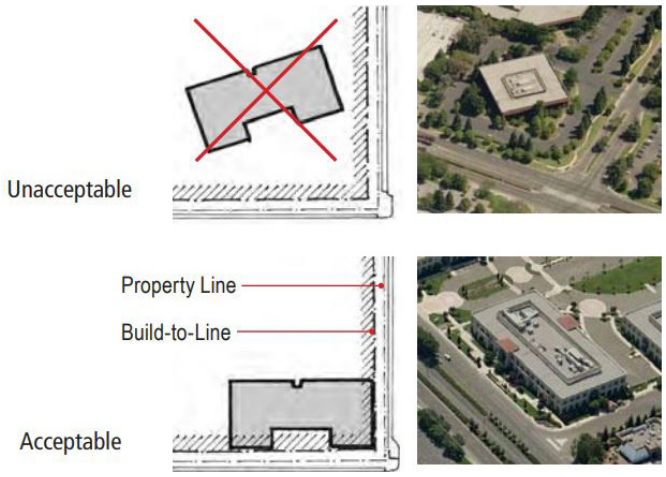
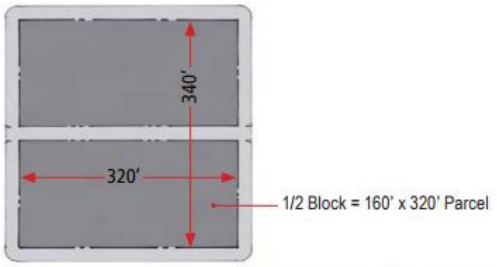
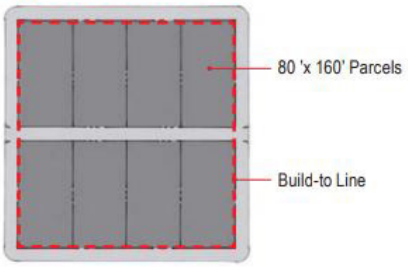


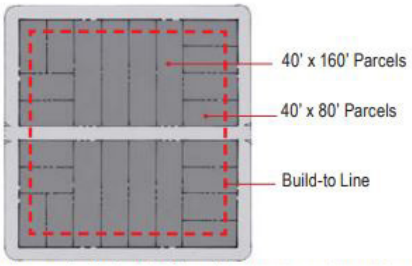
Figure 4-2. Diagrams illustrating the proper and improper placement of a building in relation to the Build-to Line.



Prototypical Sacramento urban block, with service/access alley running east/west, parallel to the lettered streets.



Typical Build-to Line in the Central Core: Building to align with edge or parcel Division of typical block into 80'X160' parcels, oriented to the lettered (east/west) streets.



Typical Build-to Line in the residential areas, like Alkaili Flats: Buildings to set back 10'-15' from the parcel edge; with subdivision of typical block in residential neighborhoods shown.

Figure 4-3. Diagrams illustrating the prototypical placement of Build-to Lines, both in the CBD (center diagram) and in more residential areas (bottom) of the Central Core.

B.1. Setbacks and Build-to-Lines (continued)

Guidelines

1. The percentage of a building's front façade that should be placed on the Build-to-line is dependent on its context, i.e., its adjacent buildings, and its location in the city. It should also be appropriate for its building type. 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 CBD, where the highest level of public activity occurs. In more residential areas, a wider setback is appropriate, where a landscaped zone between the building and the back edge of the sidewalk is desirable.
2. Buildings with ground floor residential uses should have landscaped buffers within the setback area. Where sidewalk dimensions permit, this landscaped zone may merge with any Frontage Zone of the sidewalk for a continuous frontage zone in front of the building. Front porches or terraces may encroach within this landscape zone.
3. Building with ground floor retail, restaurant or café uses should have hardscape surfaces within any setback area, resulting from the distance between the Frontage Line and the property line. This hardscape can be indistinguishable and seamless with the Frontage zone of the adjoining sidewalk.
4. Building with ground office, lobby, and/or community gathering space may have hardscape surfaces or landscape within any setback area and may be treated with the Frontage Zone of the adjoining sidewalk.

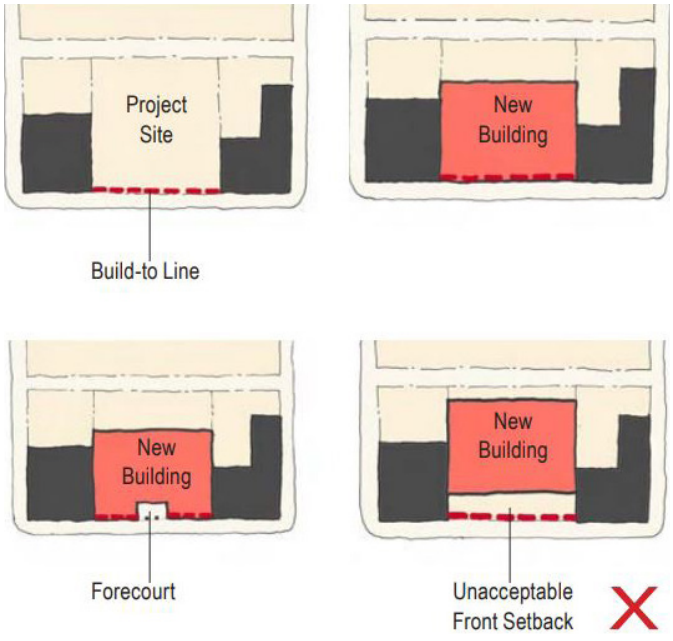
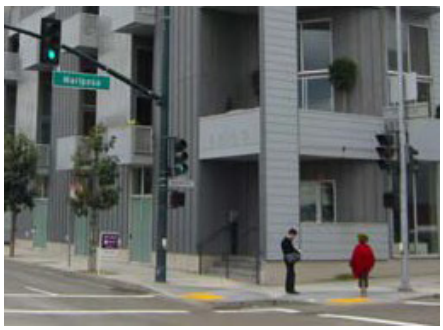


Figure 4-4. Diagrams illustrating the placement of a building in relation to the Build-to Line.

The Zoning Code provides precise setback requirements



0' Setback. Stacked loft apartment building.

3' Setback. Multifamily residential development.

12' Setback. Duplex residential development.

Figure 4-5.

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 stepbacks of the buildings to its articulation and materials. The goal of the guidelines is to establish a framework for dialogue between city departments, developers and their designers regarding appropriate architectural solutions for the Central Core.

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 Central Core. 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 downtown cores 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. The older historic commercial buildings in the Central Core generally create well defined street walls and visually accessible ground floor uses. 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

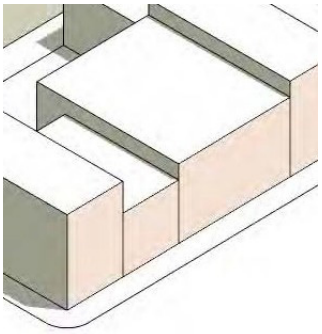


Figure 4-63. Building Component and Term Illustration

Figure 4-64. Street Wall & Building Base Height

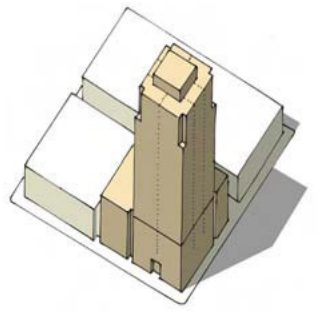


Figure 4-65. Massing & Bulk

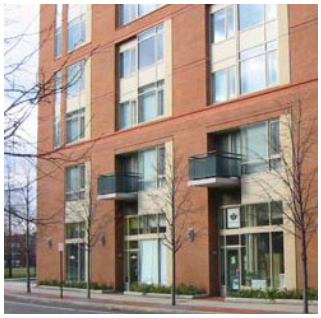


Figure 4-66. Façades

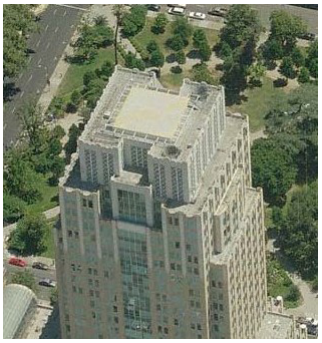


Figure 4-67. Rooftops & Mechanical Penthouse Enclosures

Figure 4-68. Development along Alleys

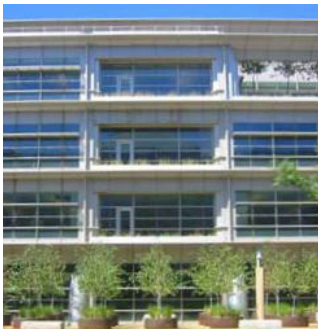


Figure 4-69. Sustainability

Figure 4-70. Public Art in the Private Realm

D. Massing and Building Configuration (continued)

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 Sacramento's downtown has matured and incorporated more and more mid and high-rise structures, the massing, bulk, and separation these have buildings become important issues to address. Densely packed towers can have numerous deleterious 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 recognition of these issues, many cities are adopting the approach pioneered by Vancouver to require slenderer towers with greater separation between them. 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 than for office 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

The skyline of the Central Core is defined the rooftops of its buildings. 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, the can become the location for residential, commercial and retail development of a different yet complementary character to that of the existing Central Core. Smaller scaled and intimate in contrast with the width and scale of the regular 80' wide streets and urban frontage, the alley system can offer the city a nuanced urban experience, unique to Sacramento.

D. Massing and Building Configuration (continued)

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 Central Core 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 Central Core 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.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

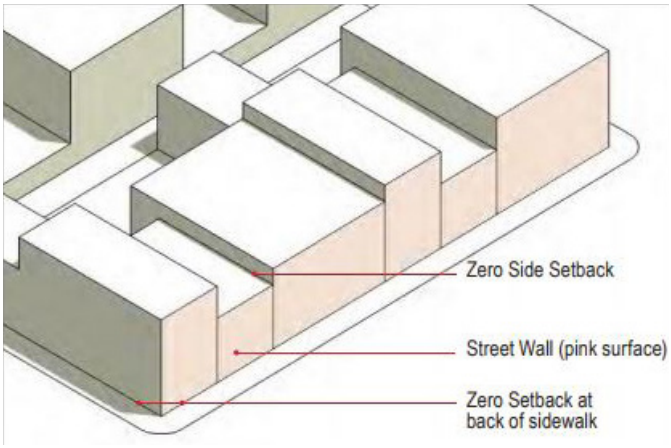


Figure 4-71.

Tower Componets

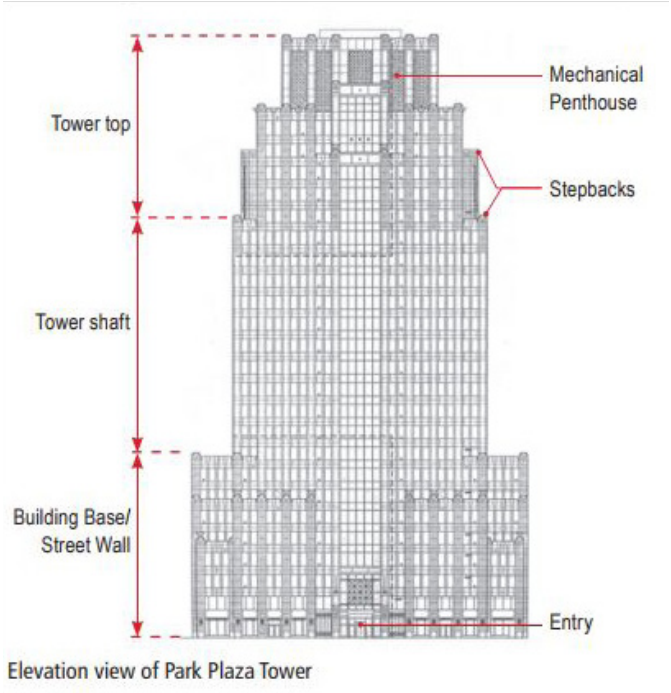


Figure 4-72.

Building & Bulk Control

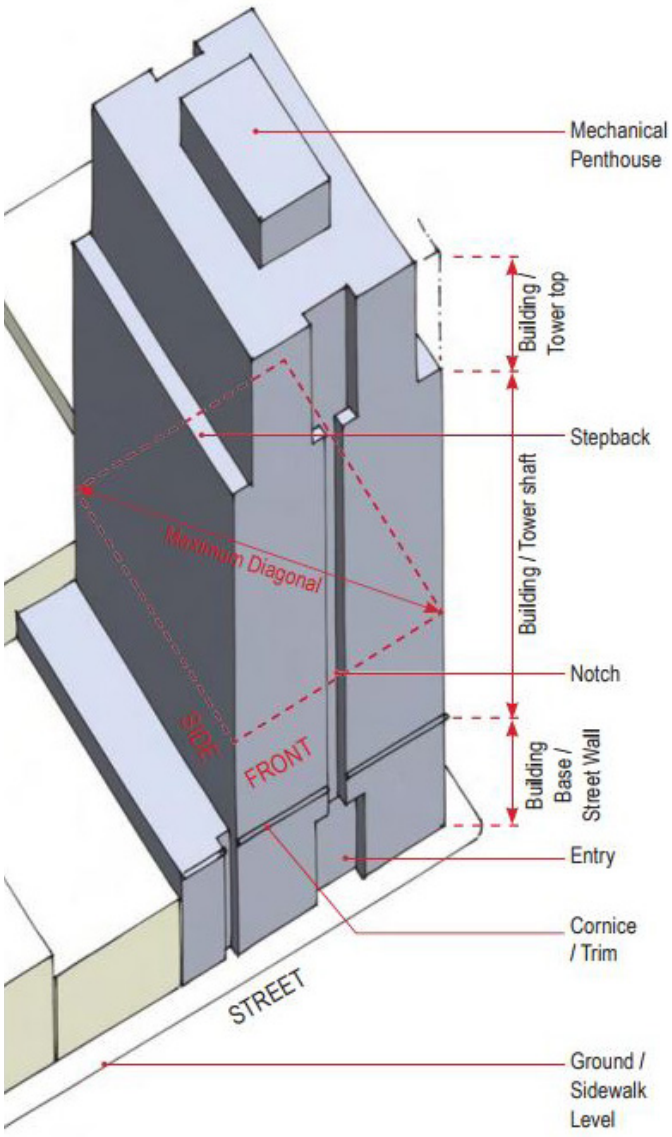


Figure 4-73.

D.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 end defined articulation.

Rationale

The public space of the street is defined by the buildings and, in Sacramento's residential areas, by tree canopies. The Central Core has a fairly consistent street wall, with a building base height established at approximately 60', matching the predominant height of many existing low-rise downtown buildings. This produces a street section with 3:4 proportions, given the typical 80' public street R.O.W. (see Figure 4-75).

Guidelines

1. 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.
2. 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. [See additions to this section on next page]
3. 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.
4. Bulk controls, setbacks and stepbacks are mandated along the Capitol Mall and Capitol Park in accordance with the Capitol View Protection Act (California Code, Section 8162.5 - 8162.9), as discussed in Section 2 - Framework.
5. A building may have multiple horizontal course articulations in order to pick up the articulations or heights of adjacent buildings. (See Figure 4-76).

Building Base Height

Figure 4-74. Consistent building wall defining the space of the street, as seen along J Street.

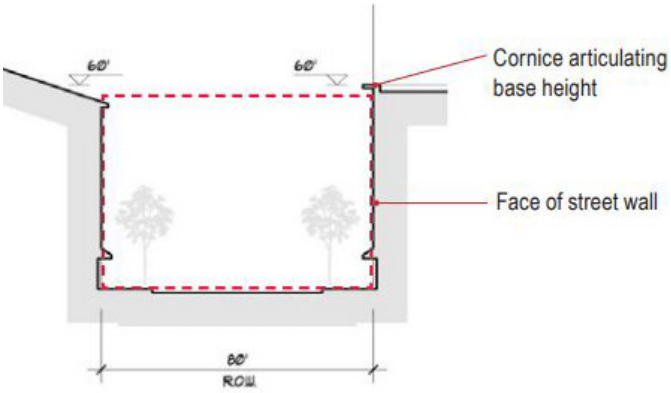


Figure 4-75. Street section with 3:4 proportions, with cornice articulation defining building base height.

Figure 4-76. Building base of 926 J Street marked with multiple protruding string course articulations.

D.2. Street Wall and Building Base Height (continued)

6. Building height zones should be directly related to building types because building heights directly affect the type of construction required and the cost of construction, which in turn have implications for development feasibility. As a reference, the following describes the relationship between building heights, building codes and construction types:
   - 6.1. 70 feet, relates to the maximum height permitted in Type V-A Construction, wood-frame building. These buildings can be a maximum of six-stories tall (e.g., four levels of residential over a two-story parking podium, with retail).
   - 6.2. 85 feet relates to the maximum allowed in a Type IIIA Construction, wood-frame or metal stud building. These buildings can be a maximum of seven-stories tall (e.g., five levels of residential over a two-story parking podium, with retail).
   - 6.3. 85 feet is the maximum allowed with a 'Below Life- Safety Limit' building consisting of stacked flats where 75 feet above grade is the height, reached by fire-truck ladder, to the top floor. Above this height, the building type would need to be a Type I or II Construction in concrete or steel.
   - 6.4. 100 feet is the approximate maximum allowed for a 'Below Life-Safety Limit' building consisting of stacked lofts where 75' above grade is the height, reached by fire-truck ladder, to the lower level of the top unit. Above this height, the building type would also need to be a Type I or II Construction in concrete or steel.

Above the Life-Safety Limit, all buildings require specific fire-fighting and rescue features such as ventilated stair vestibules, elevator recall systems and other Building Code requirements.

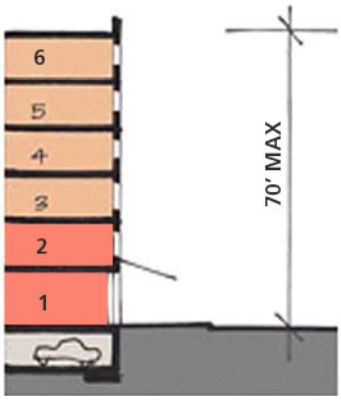


Figure 4-77. TYPE V 760' max. wod frame construction

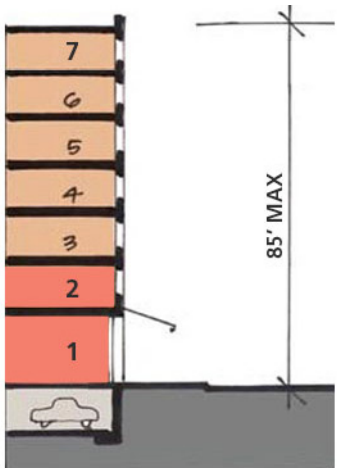


Figure 4-78. TYPE IIIA 85' max. wood frame construction

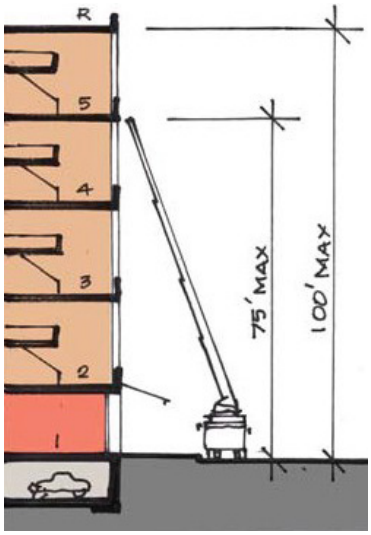


Figure 4-79. TYPE I or II Below life-saftey stacked flats 85' max.

D.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 Sacramento's downtown has matured and incorporated more and more mid and high-rise structures, their massing and separation have become important issues 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.

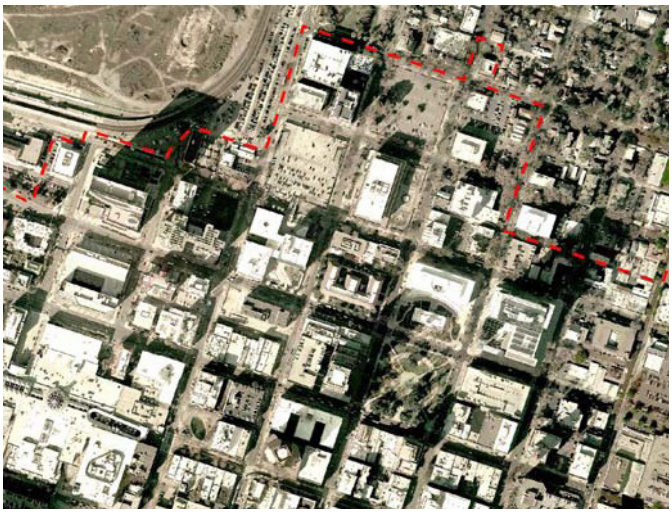


Figure 4-80. Aerial view of the Central Core, focusing on Cesar Chavez Plaza. This picture emphasizes the dramatic shadows cast by wide floorplate buildings.

Figure 4-81. Vancouver, BC, requires slenderer towers with greater separation between them.

Figure 4-82. 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.3. Bulk Controls (continued)

Guidelines

1. **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 requires high-rise buildings use smaller to medium sized floorplates. This reduction still allows the generous floorplates required for certain buildings, but reduces the building dimensions enough to produce a slenderer appearing profile, particularly as buildings get taller. 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. See Section D.3 - Bulk Controls for their respective guidelines.
2. **Building Stepbacks**
   The requirements for stepbacks should acknowledge the differences between building programs. The construction of multiple high-rise residential towers downtown creates different challenges from the previous generation of commercial buildings. Whereas 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 in similar arrangement. 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 stepback 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 and the Capitol View protection Act). This condition exists with the historic 926 J Street building, where the street wall/base condition is acknowledge with a horizontal string course, rather than a stepback, marking the division between base and shaft of a tall building. However, bulk reduction stepbacks are required at the top 20% of high-rise buildings.

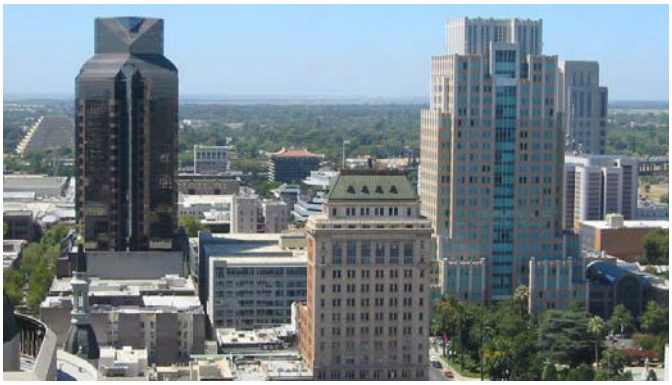


Figure 4-83. View of the Central Core, from the top of the Empire Building, looking west. These buildings employ a variety of stepback strategies, ranging from stepbacks only at the top to frequent stepbacks applied at various stages of as the buildings rise.

Figure 4-84. 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.3. Bulk Controls (continued)

3. **Tower Separation**
   As the Central Core becomes a district with a higher concentration of high-rise buildings, greater setbacks are recommended for all the same reasons that smaller floor- plates are. 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 downtown street, in order to ensure protection of views and privacy. See Part D.3.3. - Bulk Controls - Tower Separation & Height Differentiation.
4. **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 generally range in proportion from about 2.6:1 for 240' high buildings to 4.5:1 or more for building above 550' high. A series of given height thresholds are set, each with maximum floorplate dimensions (plan and diagonal) and illustrated in the following section, 3.a - 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.
5. **Wind Tunnel Testing**
   Wind can have a significant impact on the design of taller buildings, including structural design, cladding design, mechanical systems and occupant comfort, as well as creating an adverse wind environment in surrounding streets and public areas. To ensure that a development considers the impact of wind on the building as well as the impact of the building on generating a windy environment, wind tunnel testing should be part of the environmental review process for taller buildings.
6. **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 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. 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 4-85.

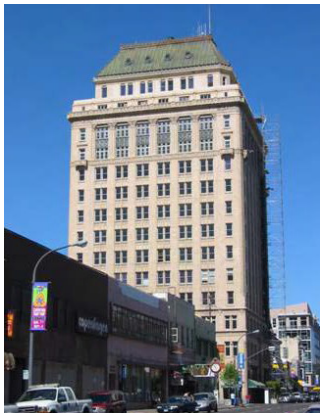


Figure 4-86.

Figures 4-85 and 4-86: Two approached 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, but whereas the Elks club uses stepbacks at each location, 926 J Street uses cornices and string course to articulate its massing.

Figure 4-87.

Figure 4-88.

Figures 4-87 and 4-88. 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.3. Bulk Controls (continued)

Bulk Control Comparisons

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

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

Case Studies

Sacramento

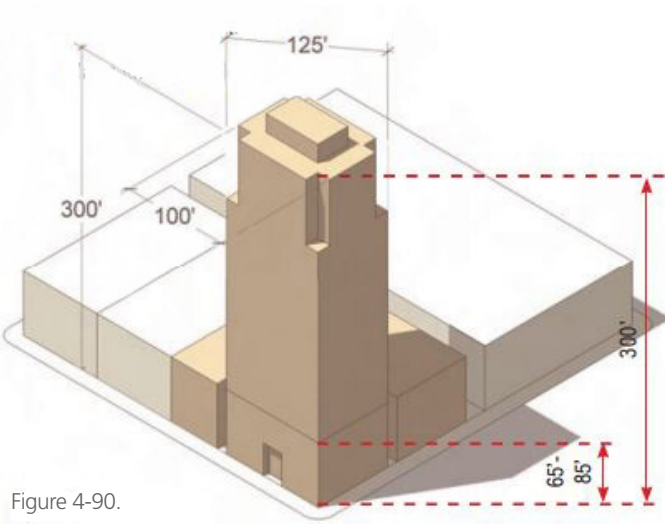


Figure 4-90.

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

Vancouver

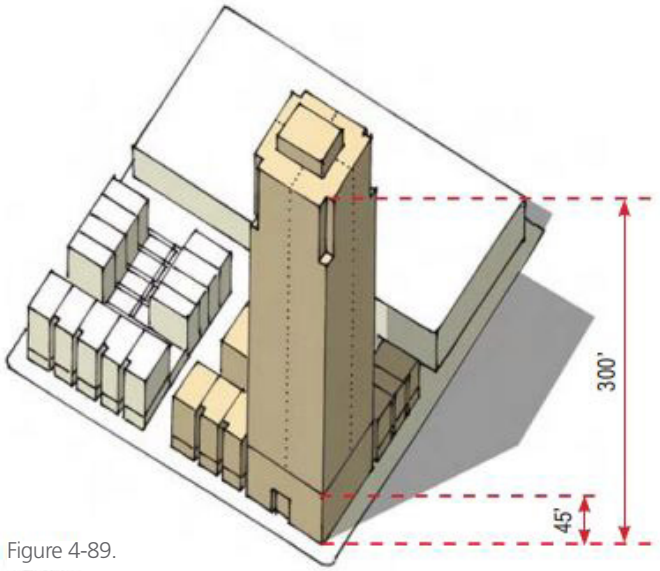


Figure 4-89.

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

Rincon Hill, San Francisco

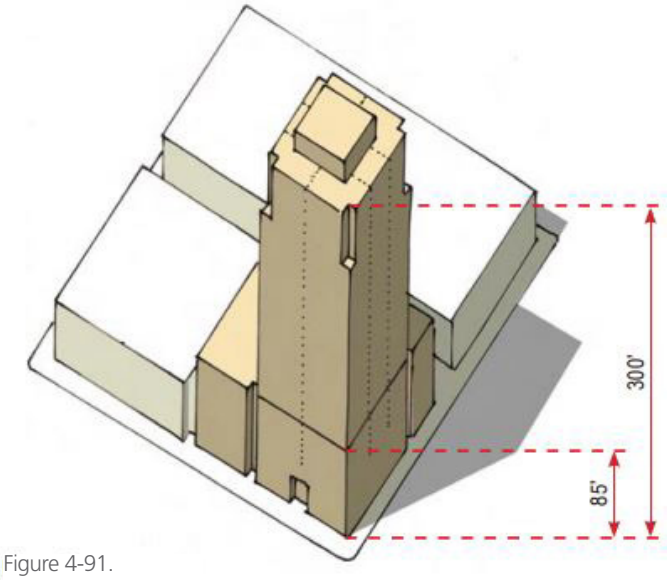


Figure 4-91.

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

D.3.1. Bulk Controls - Residential and Residential/Mixed-Use Buildings

Residential Bulk Control

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 4-92.

Figure 4-93.

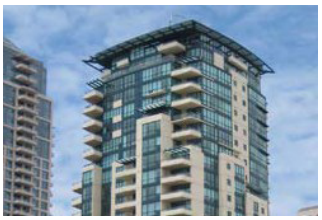


Figure 4-94.

Figure 4-95.

Figure 4-92 to 4-95. Various bulk reduction strategies employed on residential developments in San Diego, CA.

1. **Low & Mid-Rise (Up to 85' / Life-safety limit height):**
   1.1. No bulk reduction required
   1.2. No stepback from street required

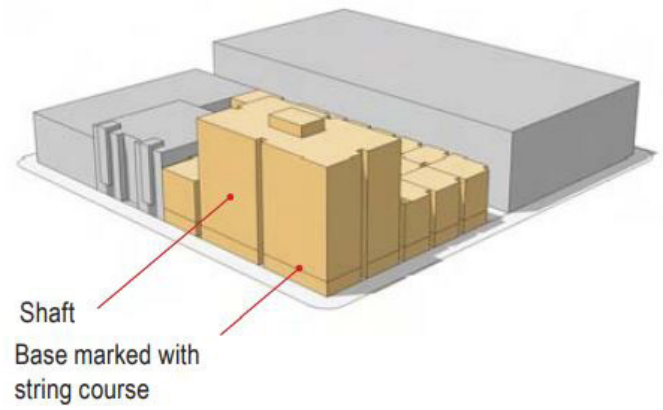


Figure 4-96.

2. **Up to 240' height**
   2.1. Maximum average tower floor plate: 7,500 sq ft
   2.2. Maximum plan dimension: 90'
   2.3. Maximum diagonal dimension: 120'
   2.4. 10% bulk reduction required for the top 20% of the tower height, measured from grade. (Bulk reductions need not be at corners, as pictured)
   2.5. No stepback from street required at street wall base height

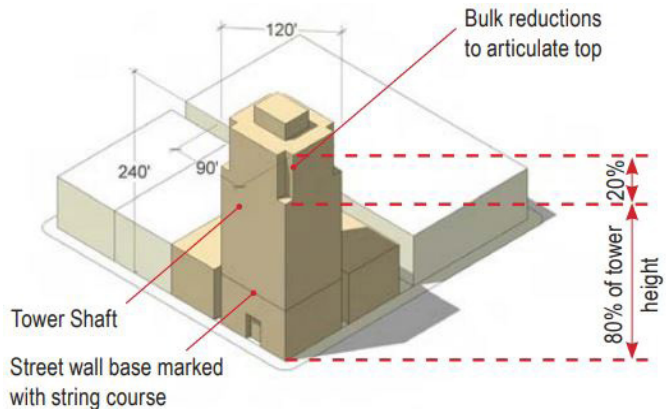


Figure 4-97.