Riverside
Citywide Design Guidelines and Sign Guidelines

Adopted November 2007
Resolution No. 21544

Amended January 2019
Resolution No. 23405

CITYWIDE DESIGN

CITY OF RIVERSIDE

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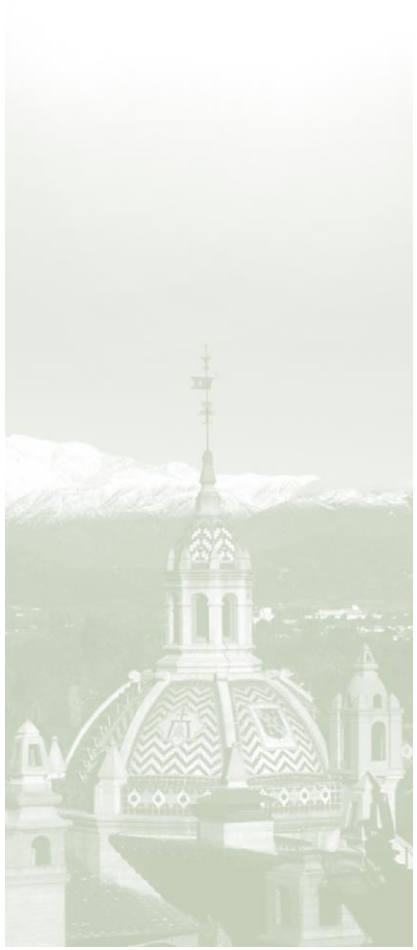

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I. Introduction

The physical image of Riverside reflects the City's prosperity, well-being, and the value and contribution of agriculture, cultural diversity, industry and manufacturing, education, and architectural heritage of the city. The image of the City's residential neighborhoods and neighborhood shopping centers emphasizes a small-town character within an urban metropolis. The City's educational facilities, universities, and college provide the image of a college town. The physical image of Riverside provides an aesthetic that attracts the City's work force, employers, residents, and visitors.

A. Purpose of Citywide Design Guidelines

These Citywide Design Guidelines work to reinforce this physical image of Riverside. These Guidelines are intended to promote quality, well-designed development throughout Riverside that enhances existing neighborhoods, creates identity, and improves the overall quality of life within the City. The guidelines are intended to promote a desired level of future development in Riverside that:

1. Promote a positive physical image and identity of all types of development;
2. Provide guidance to the development community, architects/designers and property owners;
3. Promote a high quality of development that stimulates investment in and strengthening of the economic vitality of all areas of Riverside;
4. Promote design in context with existing development in the surrounding neighborhood as opposed to requiring thematic architecture;
5. Contributes to implementing the concepts and recommendations provided in the 2002 *Visioning Riverside* program;
6. Implements the objectives, policies and tools of the General Plan;
7. Supplement the contents of the Riverside Zoning Code on matters of design and aesthetics
8. Maintain and protect the value of property; and
9. Maintain a high quality of life and pride of ownership without causing unnecessary public or private costs or unduly restricts private enterprise, initiative, or innovation in design.

The Guidelines are meant for use by homeowners, business owners, architects, and developers in achieving superior quality and design of new construction or additions to existing buildings. The Guidelines convey City policies about the design of buildings and structures, additions to existing structures, and new construction. However, they do not dictate solutions. Instead, the Guidelines define a range of appropriate responses to a variety of specific design issues.

These guidelines acknowledge prevailing architectural characters, design elements of historic and/or architectural significance, and development patterns within Riverside. These guidelines do not seek to impose any overriding architectural style, design pattern of development, or artificial themes. They seek to assist in promoting positive design characteristics throughout the City that exemplify Riverside's image and identity. The goal of these guidelines is to promote quality designs that have been carefully considered and that have well integrated building features and architectural elements rather than tacked on details. These guidelines complement required development standards per the City's Zoning Code by providing good examples of appropriate design solutions. Lastly, these guidelines strive to explain why good design is important.

B. WHY GOOD DESIGN IS IMPORTANT

Good urban design can enhance the visual quality of the urban environment and invigorate the local economy by attracting people to Riverside. Urban design encompasses many components: the functional aspects of buildings and space, landscaping, safety and accessibility, and elements of a more subjective nature. The primary objective of good urban design is to achieve beautiful, inspiring, and successful urban districts.

Well-designed, well-built projects that fit into existing neighborhoods are good for the community. Good design:

1. Leads to occupant satisfaction and community pride, inspiring ongoing concern and care for the project or building
2. Enhances and helps stabilize neighborhoods, primarily through the pride and commitment of occupants or owners and the respect afforded the project by the community

Good commercial design that is pedestrian scale in execution that uses a palette of rich visual and architectural features can create vibrant settings benefiting residents, business owners, and visitors.

3. Is durable and easy to maintain
4. Appreciates in value, all other things being equal

Good design can positively affect the quality of life in residential neighborhoods. Neighborhoods where the majority of homes are well maintained communicate pride and property owner investment.

During the first 30 years of the life of a home, only minor repair is needed. This includes painting, landscaping, and a variety of preventive maintenance or repairs. Thirty years is typically the point where major maintenance is required, such as stucco work, roofing, and other work needed to main the quality of housing.

Structures older than 50 years can require substantial upgrades to prevent functional or economic obsolescence. High cost typically is an impediment to maintaining and improving properties.

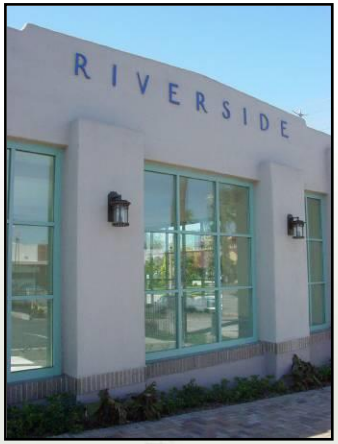
Many older neighborhood shopping centers and industrial areas in Riverside show signs of age and under investment. Stock architectural designs, deferred maintenance, poor lighting, lack of landscaping, and simple but cluttered signs can discourage shoppers from visiting the centers. The lack of visual appeal can indicate a need to reinvigorate community pride and a sense of ownership. Neighborhood shopping centers can benefit from high-quality building standards and better site design considerations.

Vacant older neighborhood shopping center with dated appearance

Newly-constructed shopping center with high-quality building materials, architectural features, and landscaping

C. How These Guidelines Are Administered

The Citywide Design Guidelines are a part of a structure of policy documents that guide development in Riverside. The Riverside General Plan defines the community vision and establishes a fundamental framework to guide decision-making about development, land use, resource management, public safety, public services, and general community well-being. Both the Riverside Zoning Code (Title 19 of the Municipal Code) and Citywide Design Guidelines are implementing tools of the General Plan and apply to all properties in Riverside. The Zoning Code presents development regulations specifically applicable to new projects or substantial improvements to existing projects. The Design Guidelines are intended to improve overall urban design. A specific plan, such as the Downtown Specific Plan, applies only to a specific area. A specific plan implements the goals and policies laid out in the General Plan for a defined area that merits special treatment. Specific plans supplement the Zoning Code development standards and design guidelines for the project area.

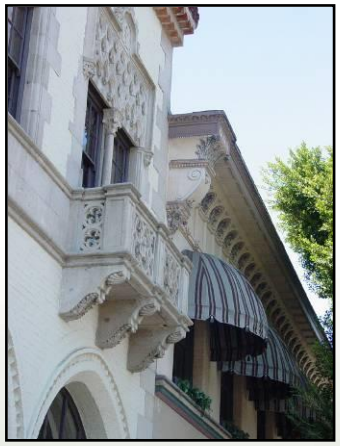


1. Riverside General Plan

The Riverside General Plan establishes the foundation for moving from the Riverside of today toward the desired community of the future. This Plan guides the City to the year 2025 by establishing goals and policies that address land use, circulation, economic development, and urban design issues. Reviewed by the Planning Commission and adopted by the City Council, the General Plan serves as a basis for decisions that affect aspects of everyday life, from where residents live and work to how they move about. The General Plan is implemented by decisions that direct the allocation of public resources and that shape private development. In essence, the General Plan is the blueprint for the community's vision of Riverside.

2. Riverside Zoning Code

The Riverside Zoning Code is the City's major implementation tool for the General Plan. The Code regulates structures and uses of property within designated zoning districts by, for example, setting limits on building height, requiring setbacks, and specifying the percentage of a site which must be landscaped. These Design Guidelines complement the Zoning Code by providing urban design and architectural direction that the Zoning Code does not.



3. SPECIFIC PLANS

A specific plan is a detailed plan for the development of a particular area. Falling under the broader umbrella of the General Plan, specific plans provide more restrictive standards for the types of uses permitted, development criteria (setbacks, heights, landscape, architecture, etc.), design guidelines, and circulation and infrastructure improvements. Specific plans are often used to ensure that multiple property owners and developers adhere to a single common development plan, as well as to provide flexibility in development standards beyond those contained in the Zoning Code.

For example, the Downtown Specific Plan guides development specifically within Downtown. The Specific Plan provides goals, objectives, policies, development regulations, implementation, and design guidelines for Downtown Riverside. The design guidelines established for Downtown in the Specific Plan supercede these guidelines. These Design Guidelines apply to all areas of Riverside not previously covered by a specific plan.

4. DESIGN GUIDELINES

Design guidelines provide site planning, architectural, and landscape architectural criteria pertaining to forms of development. Design guidelines can be both qualitative and quantitative. Typically most design guidelines are qualitative, meaning that, they provide, through descriptions and illustrations, a manner in which a project should be designed related to land use, building type, and spatial setting. Qualitative guidelines allow for considerable flexibility and interpretation as long as the intent of the guidelines is upheld. Quantitative design guidelines are more finite, typically written with a specific numerical component, such as a certain measurement (e.g. setback width) or preferred quantity (e.g. percentage of landscape coverage). While these guidelines provide flexibility, the numbers specified relate to a desired image or characteristic that enhances the quality of development.

For example, the Citywide Residential Historic District Design Guidelines provide design criteria to help preserve and assure historically appropriate development of Riverside's residential Historic Districts. The guidelines established in this manual supercede these guidelines pertaining to design treatment of residential properties in the historic districts discussed in the document.

D. APPLICABILITY

The provisions in this guidelines manual are applicable to the proposed development of all Residential, Commercial/Mixed Use, Industrial, and Public Facilities uses within the City of Riverside. Design review is required for any proposed building, structure, or sign, or for any new landscaping associated with such improvements as visible from the public right-of-way and, therefore, shall adhere to these guidelines, as applicable. It should also be noted, that these guidelines do not affect existing buildings which are not proposed for new construction, exterior modifications, or modification in landscaping or irrigation plan.

These Guidelines are to be used by the public in the design of projects and by City staff and decision-makers in the Design Review process specified in Chapter 19.720 of the Zoning Code (Title 19 of the Riverside Municipal Code).

1. EXEMPTIONS

When in compliance with all other City codes, the following projects are exempt from design review:

a. Any restoration, rehabilitation, alteration, development, construction, demolition, removal or appearance change of any landmark, landmark structure, landmark site or any structure or site within a preservation district which requires the granting of a permit by the Cultural Heritage Board or the City Council on appeal.

b. Development of four or fewer single-family dwelling units in any residential zone district other than the RC zone district.

2. LIMITATIONS

In addition to the projects exempt from design review, the following general limitations apply to all development:

a. Design review shall not consider elements of the design that are not visible beyond the boundaries of the site.

b. Design review for a manufactured dwelling shall apply only to the approval of foundation, roof material, roof pitch, roof overhang, siding material, and any structural attachments.

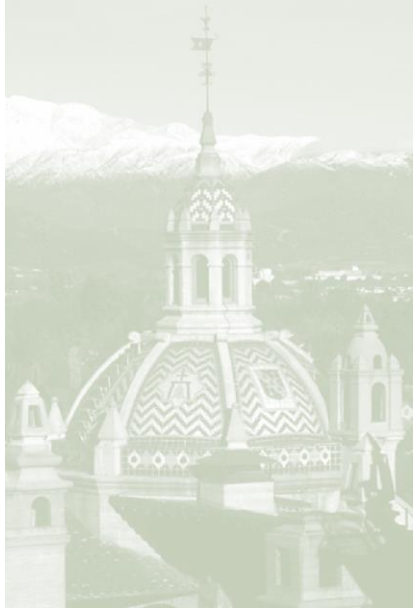
E. ORGANIZATION

The Guidelines are organized in chapters according to major land use categories. General areas and/or uses addressed include:

- Single-family residential neighborhoods,
- Multi-family residential development,
- Commercial centers,
- Neighborhood shopping centers,
- Mixed use developments,
- Industrial and business park areas, and
- Public facilities.

Project proponents should review the entire set of design guidelines prior to beginning the project's design process.

Topics include site planning, building massing and scale, quality architectural appearance, landscaping, privacy protection, signage, lighting, and parking. The last section of this manual includes definitions of key terms used in this document.



F. HOW TO USE THESE DESIGN GUIDELINES

These guidelines should be used as a starting point for the creative design process. They should not be looked upon as the only design solution. Instead, property owners/architects/designers are encouraged to be creative and innovative, looking beyond franchise and "cookie-cutter" architectural and landscape architectural design treatments. It is necessary that property owners consult with City staff and any affected residents and/or business owners in the design process prior to development of a design.

1. INTERPRETATION OF DESIGN GUIDELINES; "SHOULD" VS. "SHALL"

To assist in understanding the full intent and/or requirement of the various provisions found in the design guidelines, applicants should be informed as to the meaning and context of the words "should" and "shall", as well as "encouraged" and "discouraged", as used in the Guidelines. These words will be used consistently throughout the document to describe the intent of each guideline.

Guidelines that use the word "should" are intended to express the City's desire and expectation. These guidelines are meant to be applied with some flexibility. They indicate that the City is open to design features that are equal to, or better than, that stated — as long as the intent is satisfied. The applicant assumes the burden of proof to demonstrate how a proposed design meets this test, and determinations will be made by the Planning Director or other authorized decision-maker per Chapter 19.710 of the Zoning Code (Administrative Design Review).

Guidelines that use the word "shall" are specific requirements from the City. These standards are absolutely mandatory and offer relatively little flexibility unless choices are provided within the statement itself. All projects must include these elements as described. Regardless of which term is used, each guideline as it pertains to each individual project must be addressed by an applicant. The City will expect to see how the design of a project responds to every one of the guidelines, as applicable.

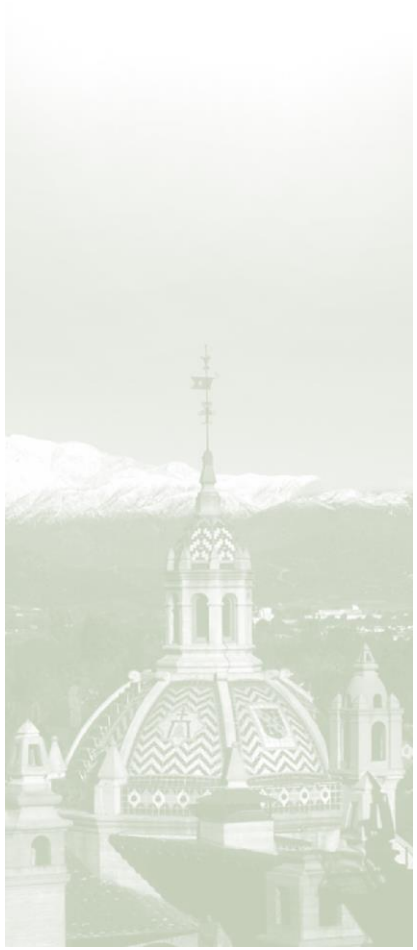
Guidelines that use the word "encouraged" or "discouraged" are intended to express a more or less desirable design solution. While, they are not direct requirements, these guidelines allow for considerable flexibility and interpretation whose intent must be upheld. Applicants will be expected to prove how the project's design implements a particular guideline as deemed applicable by City staff

This industrial building's blank, unarticulated façade would be undesirable and deemed "discouraged".

This industrial building's well-articulated façade would be desirable and deemed "encouraged".

2. RELATIONSHIP TO THE DESIGN REVIEW PROCESS

Applicants of new development or rehabilitation must follow a development review process administered by City Planning staff in order to complete site and building improvements. Design review is one part of the overall process.



At the beginning of any project, prior to drafting any significant design plans, applicants should meet with a City staff member from the Planning and Building Department. At this meeting, City staff can provide time and cost-saving information on the discretionary approvals necessary for project approval and any City codes and ordinances that may affect or apply to the proposed project and its design. City staff can also provide valuable information pertaining to permits, processing, and timelines. This meeting also provides an opportunity to better understand the project's specific design objectives and expectations between the proponents and City staff.

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II. Design Objectives

The following objectives provide direction and purpose for the subsequent design criteria and guidelines with regard to character and urban design. The concepts drawn from these objectives reflect the urban design objectives and vision established in the Riverside General Plan at a citywide scale. These objectives are intended to:

Look to Riverside's rich architectural tradition to inspire good design. Preserve historic character of existing architecturally significant structures

- Provide for distinct architectural character and physical enhancement of future and existing development to foster revitalization and rehabilitation of the neighborhood, commercial and industrial centers.
- Preserve and enhance historical character of existing structures with architecturally compatible development.
- Create pedestrian-oriented neighborhoods and business environments with architectural and landscape architectural design that allows for active, healthy, and safe interaction of pedestrians and vehicles.
- Through the design of individual projects, promote connectivity to surrounding neighborhoods.
- Provide guidance to residents, architects/design professionals, and developers in the planning and design of development projects throughout the City.

Create vibrant projects that engage and invite the pedestrian. Outdoor seating and an arcade leading into a courtyard surrounded by shops at this corner retail commercial development invites users.

A. Architectural Themes

Architectural theme in the context of a historic city such as Riverside is an important element of the overall urban aesthetic. Recognizable architectural styles provide visual interest, provide a structure's individual identity and sense of place, and connote pride of ownership. The resulting aesthetic increases a community's quality of life and livelihood with the increase and preservation of property values, as well as attraction of consumers and quality development.

1. Architectural Styles

Recognizable architectural styles create a sense of place and add visual interest to residential neighborhoods and commercial districts. These styles can create a particular character and a sense of consistency within development as well.

a. Especially in areas of architectural significance, use of a particular style should respect the established pattern of existing development. The consistency that is created with requiring elements from established styles is not intended to be constrictive, but rather offer diversity within a development, district or neighborhood and is not meant to create a situation where all the buildings look the same.

b. Pre-existing architectural styles serve as a touchstone and visual reference to the City's history and cultural roots. While no particular architectural style is required for a specific area or type of development, elements from an established style are required for new buildings. Architectural styles such as Victorian, Italianate, Craftsman, Mission, Spanish Colonial Revival, Monterey, Colonial Revival, Mediterranean/Italian Renaissance, Tudor Revival, Art Deco/Moderne, and Post-WWII Modern/International are typical of the rich historic development of California and are highly visible in Riverside. (*See Appendix B: Architectural Resources for more information on these architectural styles and others.*)

Recognizable architectural styles such as this Mission Revival Style commercial building provide visual interest and identity.

Riverside's rich architectural history is evident in buildings throughout the City. The Pueblo Revival Style of the City's train station illustrates how diverse and creative architectural styles can be.

2. Contextual Style

Preserve the size and shape of windows and

Building design that is successful in its execution fits within the context of its location, from as small an area as a parcel or block to as large as a neighborhood or district. Architecture, site planning and landscape design should appropriately reflect a contextual style of surrounding elements such as scale and massing, site orientation, façade articulation and fenestration, and architectural ornamentation and decoration.

B. Historic Character

Historic character is a significant part of Riverside's image. Historic character provides great opportunity to further define the City's image and attraction of new commercial and diverse housing opportunities. The guidelines below will assist with preservation of all applicable buildings representing the City's historic past, and will ensure that additions to these structures maintain this historic integrity. These guidelines will assist with development of new compatible structures adjacent to historic ones. These guidelines apply to all exterior modifications (as defined herein) which are visible from a public right-of-way.

1. Protect and maintain significant stylistic features. Historic features, including original materials, architectural details, window and door openings, contribute to the character of a structure and should be preserved when feasible. Continued maintenance is the best preservation method. Preventative measures should not harm the historic materials. Only those features that are deteriorated should be repaired, and only those features that are beyond repair should be replaced.

2. Design additions to historic resources in a manner that is consistent with the architectural style, including the scale, form, features, and finishes. Modifications should not obstruct significant historical features of the primary structure. Additions should also take into consideration the historic site design and building placement of the primary structure on the lot.

3. Avoid removing or altering significant architectural features. To the extent feasible, preserve significant features in their original form and position as follows:

   a. Preserve the size and shape of windows and doors. These features have a significant effect on the building character, giving scale and visual interest to individual façades. It is most important to maintain the proportions of the original windows and doors.

   b. Maintain a storefront and all of its character-defining features. Many of Riverside's historic resources are commercial buildings with clearly defined primary entrances and large display windows. The repetition of these elements creates visual unity.

4. Preserve the original form and scale of a roof. Roof pitch, materials, size, and orientation are all distinct features that contribute to the character of a roof. Flat roofs with extended parapets and low-pitch hip roofs are predominant features of historic buildings. Repetition of similar roof forms contributes to a sense of visual continuity.

5. Preserve primary historic building materials whenever feasible. Do not cover or conceal the original façade materials (e.g., wood siding or painting over brick or stone).

6. Replace historic features in-kind when restoration is not an option. If replacement is necessary, the new material should match that being replaced in design, color, texture, and finish to convey the visual appearance of the original. When reconstruction of an element is impossible, develop a new design that is a simplified interpretation of it.

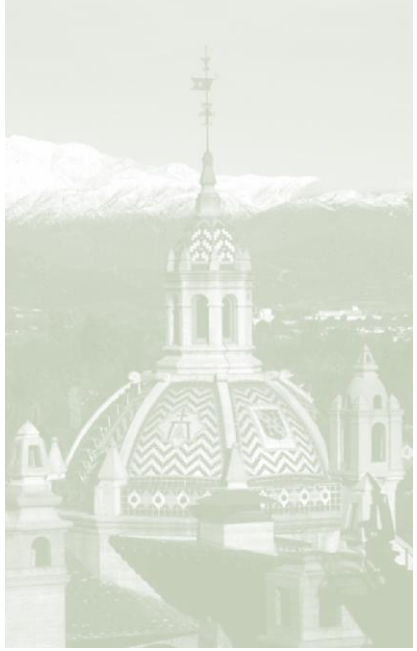
Preserved storefront retains historic and architectural character and pedestrian orientation.

Original Mission Revival style industrial warehouse converted into restaurant use. Historic Mission features preserved and enhanced.

The Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings

In addition to the guidelines above, the U.S. Secretary of the Interior publishes a set of standards for the rehabilitation of historic structures that forms the basis for many local preservation programs. When working with a historic structure, the Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings should be used.

The Secretary of the Interior's Standards for the Rehabilitation of Historic Buildings are available on the Internet website of the National Parks Service at www.cr.nps.gov



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III. Residential Design Guidelines

Maintaining neighborhood character and ensuring quality design in all residential areas strengthens neighborhoods. If not thoughtfully designed, new housing can adversely affect existing neighborhood character. Especially in previously undeveloped areas, the design of new projects will greatly influence later surrounding development.

Riverside's rich residential architectural history is exhibited in this Queen Anne Victorian home.

High-quality single-family and multi-family dwelling units should protect the privacy of adjacent residential units and complement other houses within the same block. These residential design guidelines protect and enhance the quality of all neighborhoods. Riverside's Zoning Code reinforces these strategies with consistent development requirements.

A. Single-Family Residential Design

Single-family residential uses are lots or parcels containing single-family detached units or attached housing. The following Guidelines apply only to single-family residential uses.

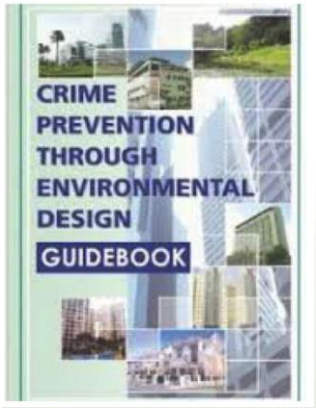
1. Single-Family Site Planning

How a building is placed on a site has a powerful impact on how a project is perceived by neighbors and on how well it "works" for occupants. Both location and appearance of the site entry are critical to the public image of a building. Likewise, setbacks can affect public perception of the project, either by reinforcing the pattern in the surrounding neighborhood or by consciously breaking that pattern. Finally, a building's placement on a site will influence the degree to which climate will impact the building. The following guidelines apply to siting of single-family residences:

a. Integrate new single-family residential developments into their built surroundings. In particular, encourage a strong relationship between the new dwelling and the street

III. Residential Design Guidelines

Additional CPTED design and implementation resources can be found online.



Octagonal entry relates to the corner of the street. See guideline III.2.1.c.

One-story corner lot homes adjacent to two-story interior lot homes reduce the appearance of mass and visual bulk from the street.

b. New structures shall be oriented toward the street to maintain consistency with other existing residential buildings on the street.

c. Single-family residential buildings shall have entries, front porches, and windows that face toward the street.

d. Encourage buildings to be sited on properties in such a way that the building promotes a sense of community and does not isolate itself from the remaining residential properties on the street.

e. Site plan designs shall take into account shading, shadow and similar impacts to onsite and adjacent buildings. Avoid layouts in which adjacent buildings obstruct one another. Design and orient buildings so that sunlight directly enters a dwelling unit during some part of the day year round.

f. Set back garages from the front building plane of the house to deemphasize their presence.

g. During the early stages of site design, consider incorporating the principals of CPTED, Crime Prevention Through Environmental Design, to ensure the most responsible site layout.

Front porches and entries are oriented toward the street providing visual interest from the street. See guideline III.2.1.c.

Garage is set back from the front building plane of the house to deemphasize presence. The front of the house with its distinguishing architectural features including the entry and front porch is prominent from the street.

2. Single-Family Scale and Mass, Infill Development

Scale and mass are important characteristics of buildings within single-family neighborhoods. The size and scale of a new structure should relate to the prevalent scale in other buildings in the immediate neighborhood, thus creating visual consistency. The following guidelines apply to siting of single-family residences.

a. The scale and mass of new single-family residential buildings or additions shall not be overbearing or out of place in existing residential neighborhoods.

b. The physical proportion of a new residential structure or addition shall be appropriate in relation to the lot size, as specified in the Riverside Zoning Code.

c. The scale and mass of new residential buildings and additions shall be harmonious and consistent on site and with surrounding development.

d. The scale and mass of new infill buildings shall be reduced by stepping down the building height toward the street and adjacent smaller structures.

e. Rooflines and pitch of new residential buildings and additions shall be harmonious and consistent on site and with surrounding development.

f. Architectural elements of new residential buildings shall be designed to avoid box-like structures.

Inappropriate, incompatible scale and mass of newer infill housing on the left as compared to the pre-existing house on the right.

Appropriate, compatible scale and mass.

Roof lines and angles of these adjacent structures are compatible to each other.

3. High-Quality Single-Family Building Appearance, Infill Development & Subdivision

The following guidelines are intended to promote a high quality appearance of single-family buildings.

a. Communicate the single-family residential function of a building by encouraging the design of visually appealing residential dwellings featuring varied façades and pleasing compositions.

b. Structures shall be made visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim, and roof shape.

c. Rhythm, size, and proportions of openings (windows, doors) shall be similar to other quality buildings in the neighborhood.

d. Building façades shall be varied and articulated to provide visual interest to the street and pedestrians.

e. Porches, bay windows, balconies, railings, fascia boards, and trim designed to Zoning Code requirements should be used to enhance the character of residential buildings.

Architectural details on these new Craftsman style homes such as front porches, wood columns, exposed rafter tails, and fascia provide a high quality appearance.

Varying façade and building plane and roof projections consistent with the home's architectural style or designs add visual interest.

f. Building materials and colors should be complementary to the surrounding area.

g. No building façade shall consist of an unarticulated blank wall or an unbroken series of garage doors.

h. Simple, unadorned aluminum or similar windows shall be prohibited. Accent features such as sills, shutters, false canopies, surrounds, and multi-paned windows shall be used. Recessed windows shall also be used where appropriate.

i. Treat the structure as a whole and finish appropriately on all sides to provide continuity.
   1. Materials should appear substantial and integral to the structure when material changes occur at changes in plane.
   2. Material changes not accompanied by changes in plane appear "tacked-on" and are strongly discouraged.

j. For most architectural styles, the number of colors on the exterior should be limited to a maximum of three, with an additional contrasting color for accent.
   1. In general, lighter colors should be used for the main body, with darker shades for trim and accent.

Multi-paned windows are treated with decorative moldings, exposed dentils, decorative shutters and window planter boxes. See guideline III.A.3.h.

Rear and side elevations are treated with the same high-quality details as the front of the house. See guideline III.A.3.i.

4. SINGLE-FAMILY LANDSCAPING

Landscaping is a critical component of any successful development project and should be considered an essential part of the design process, particularly for single-family residential developments. Landscaping should complement good architectural design and create a finished product. A rich variety of plantings should be selected and provided appropriately for their intended use. The following guidelines apply to landscaping for single-family residences.

a. Trees, shrubs, groundcover, and grass areas shall be incorporated within single-family development projects to create an appealing and comfortable environment for residents and those viewing from public areas. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

b. The use of landscape elements such as clinging vines, espaliers, trellises, and shrubs to enhance the architecture and create and define attractive private open spaces is strongly encouraged.

c. Front yard areas should be designed using landscape elements pertaining to form, horizontal and vertical lines, hardscape and softscape, and ornate qualities that are compatible to the primary structure. Visual openness should be maintained; planting which completely isolates the front of the dwelling from the streetscape is strongly discouraged.

d. When a new single-family residence is within or adjacent to a city designated historic district, the landscape design and selected plants should reflect the surrounding area's historic character. Refer to Title 20, Cultural Resources, of the Municipal Code, the Cultural Heritage Board's Design Guidelines, and the district-specific guidelines.

e. To the extent feasible, existing mature trees and shrubs that represent existing significant landscaping shall be preserved. Efforts shall be made to fully incorporate the existing preserved landscape elements with the proposed landscape design.

Front yard landscaping should frame and greatly enhance the presentation of a home.

Front walks and steps made of colored concrete, bricks, and/or stone and accentuated with landscaping and architecturally compatible piers with lighting create great curb appeal.

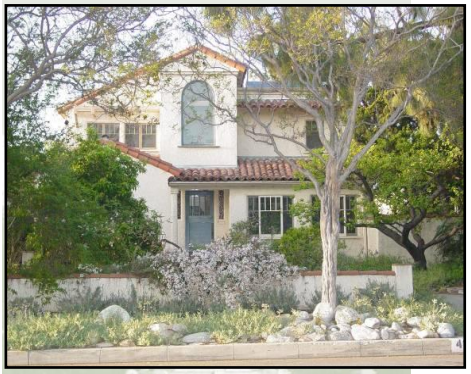
Consider using native and/or water efficient plants instead of more water-consuming turf and lawn. See guideline III.A.4.f.

e. Vegetative ground cover that will absorb rainwater and reduce runoff shall be used. Permeable surfaces should be used wherever possible to reduce paving. Creative grading solutions along with innovative hardscape materials should be considered.

f. The proper placement of evergreen and deciduous trees can provide a balance of shade during the warmer months, and provide light and warmth during the cooler months of the year.

g. Careful water budgeting calculations shall be performed to not exceed the maximum allowable water use, as directed by the Zoning Code, Chapter 19.570.

1. Landscaping should incorporate the use of water efficient, climate appropriate plants to reduce water demand.
2. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
3. Turf areas should be thoughtfully designed in response to functional needs, and shall be incompliance with the water budget according to the Zoning Code, Title 19.570, Water Efficient Landscape and Irrigation.
4. Non-living ground cover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.



i. Through the application of an efficient and well-designed irrigation system, water use can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

j. Air conditioning/mechanical equipment and trash enclosures should be placed out of view from the public right-of-way and should be screened with landscaping.

k. Entrances to alleys should be landscaped. Walls in alleys abutting residential uses shall be screened with landscaping such as clinging vines. Landscape areas adjacent and between garages in alley-loaded residential areas are encouraged.

See the City's Water Efficient Landscaping and Irrigation Code Chapter 19.570 for water-efficient planting requirements.

Front yard fencing and walls such as low garden walls and wood pickets or wrought iron should provide the appearance of visual openness. Use landscaping such as clinging and climbing vines to soften their appearance while still maintaining this openness. See guideline

h. Up-lighting where the source of light is below grade or hidden, of landscape elements, building facades and architectural features should be used.

5. SINGLE-FAMILY FENCES AND WALL

a. The design of fences and walls shall be architecturally compatible with, and of the same architectural style as, the primary structure.

b. The design of fences and walls shall create a visual openness with a decreasing level of opaqueness as the height of the fence or wall increases. Walls that completely isolate the front of the dwelling from the streetscape are strongly discouraged.

Provide visual interest to long wall expanses, such as for properties whose back yards abut a public right-of-way, with pilasters, cornice moldings, and stone capping. Soften their appearance with clinging vines and heavy landscaping including groundcover, shrubs, and trees. See guideline III.A.5.c.

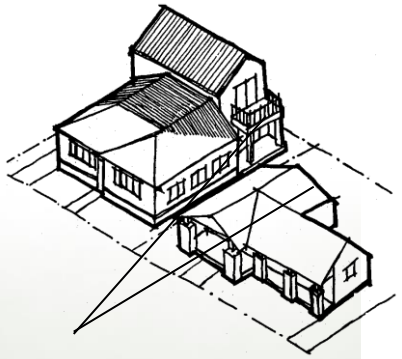
c. Decorative fences and walls where visible to the public are required. The fences and walls shall be made of low maintenance, durable materials. Wood fences are typically not acceptable. Fences and walls are required to screen unsightly views

d. Permitted materials for walls shall be decorative masonry split face block, brick, natural stone, precast concrete panels, stuccoed walls or other unique wall materials or finishes that integrate well with on-site buildings, as determined on a case by case basis. Slump stone and precision block are not considered decorative materials and shall not be permitted as acceptable wall materials. All walls must feature matching cap materials. Refer to the Green Design Guidelines for additional material considerations.

e. Landscaping shall be included as part of the design for the fence or wall and should be used to soften and screen large masses of blank wall surface area.

f. Under the Design Guidelines and Zoning Code, wall height is limited primarily for aesthetic reasons. Limitations on maximum wall heights could reduce the ability to maintain noise levels in some locations to levels required by Title 24 of the California Code of Regulations and Title 7 of the Riverside Municipal Code. In the cases where mitigation measure MM Noise 1 of the City's General Plan 2025 EIR is implemented, the City may consider increasing wall height as one measure to reduce noise to acceptable levels. In such high level noise situations, combinations of setbacks, site design, berms, and solid walls, including walls higher than normally permitted by Code or these Design Guidelines, may be used to achieve noise standards.

g. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when these residential developments are in the vicinity of planned trails outlined in the General Plan.



Privacy of the adjacent neighbor is obstructed by neighboring second-floor

6. Single-Family Privacy Protection

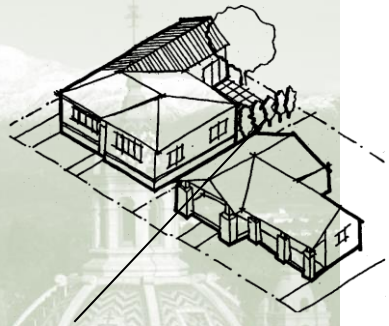
Building height, the placement of windows and entries, setbacks, and landscaping all contribute to the level of privacy between adjacent properties. New two-story buildings with windows directly facing an adjacent existing residential building and private yard may adversely affect the privacy of adjacent units. Simple measures such as purposeful window placement and/or planting of tall trees can help protect residential privacy.

Ensure that new single-family residential buildings or additions are designed and constructed to protect the privacy of adjacent residential properties.

a. New two-story residential buildings directly adjacent to one-story residential buildings shall be set back and oriented to respect the privacy of the one-story building.

b. The direct line-of-sight between dwelling units, specifically bedrooms and bathrooms, should be minimized by orienting windows, balconies, and entryways so they do not directly face into adjacent property windows or private open space.

c. Landscaping should be used as screening to enhance residential privacy.



The direct view of the adjacent property is screened respecting that neighbor's privacy.

7. SINGLE-FAMILY SUBDIVISION DESIGN PROVISIONS

Designs for new residential subdivisions must provide varying high-quality sites, with architectural and landscape design plans that promote a sense of neighborhood and do not resemble the common "cookie-cutter tract" development. The end result of these designs must promote an attractive, functional, safe, and lasting neighborhood that is compatible in aesthetics to existing neighboring developments, as well as the surrounding natural environment.

Refer to the City of Riverside Public Works Department for street tree selection and requirements at www.riversideca.gov/pworks

Site planning of new subdivisions should provide and link the subdivision's various components, including lot configuration, residential blocks, natural open space, pedestrian/equestrian routes and trails, landscaping and greenbelts, and community nodes and facilities such as schools, parks, and community centers.

A. SITE PLANNING PROVISIONS

i. Circulation System

a. The circulation system that serves the subdivision should be logical and predictable. Streets should connect to adjacent subdivisions, thereby providing direct access to schools, parks, and community centers for pedestrians, bicyclists, automobiles, and emergency vehicles. All street widths must meet City standards for road classifications.

b. Sidewalks shall be separated from the curbs by a landscaped parkway, containing street trees, to be maintained by the property owner. Refer to the City of Riverside Public Works Department for assistance on street tree selection and requirements.

Property line sidewalk with parkway adjacent to street provides safer sidewalks, more attractive street scene.

c. Street patterns that create long interrupted walls at the property line should be avoided.

d. Traffic calming devices such as landscape medians for arterial streets, slight variations in road curves and widths, and on-street parking should be incorporated wherever feasible.

e. "T" intersections that occur at development entries should incorporate landscaped open space areas, enhanced parkways and medians to create an attractive entrance.

f. Cul-de-sacs that side onto through streets or greenbelts should provide pedestrian access to connect to the adjacent through street.

g. Bicycle circulation and the location of bicycle parking facilities should be carefully considered.

Landscape open space areas at "T" intersection.

ii. Lot Configuration

a. To avoid a "tract"-like appearance, lot arrangements should employ varied front yard setbacks, as allowed by the Zoning Code. Side-facing garages, detached garages, and garages setback from the front building plane of the house to de-emphasize their presence are strongly encouraged. The front and rear wall planes between adjacent houses should vary by at least three to five feet.

b. Single-family residential buildings shall be oriented toward the street with primary entries and windows that face toward the street.

c. Buildings should be oriented in a way that maintains visual appeal from any adjacent roadways. Reverse frontage lots shall be discouraged in favor of street-oriented frontage and side-on lots where possible. Where reverse frontage lots are unavoidable, decorative block walls should be erected in accordance with Section III.A.5 of the Design Guidelines, including the use of landscaping and vines to soften and screen the surface. In addition, maintenance of parkways between the street edge (curb) and property lines should be encouraged and facilitated through the incorporation of linkages and access points in the design.

See guideline III.A.7.ii.e.

d. Buildings and related elements, such as front porches, should be sited on properties in such a way that the building promotes a sense of community and does not isolate itself from the adjacent residential properties on the street.

e. Corner lots are better suited to be larger and wider with single-story structures, reducing the appearance of bulk and mass along the streetscape.

f. Lot placement should respect the natural terrain of the site. Mass grading and individual lot grading should take advantage of the natural terrain to the extent feasible. Manufactured slope, heights, and vertical changes between lots should be minimized. Significant grade changes should be gradually stepped or terraced.

g. Lot configurations shall take into account shading, shadow and similar impacts to onsite and adjacent buildings. Avoid configurations in which adjacent buildings obstruct one another in terms of lighting and air movement. Buildings should be designed and oriented so that sunlight directly enters a dwelling unit during some part of the day year round.

h. Lots that back onto an arterial roadway or are adjacent to a land use with a higher intensity zoning classification should incorporate landscaped buffer areas and deeper rear yards to mitigate potential noise, aesthetics, and land use compatibility impacts.

Primary entry and porch oriented toward the street.

See guideline III.A.7.b.i.

B. Architectural Design Provisions

The goal of architectural design for subdivisions is to provide variation, individuality, and visual interest among the multiple homes being developed.

Attractive streetscape is achieved with compatible scale and massing between structures. See guideline III.A.7.b.iii.

i. Visually appealing residential dwellings featuring varied façades and pleasing compositions, utilizing complementary architectural styles and elements and varied elevations, and use of varying building materials, exterior colors and finishes from lot to lot shall be required.

ii. Structures shall be made visually and architecturally pleasing by varying the height, color, setback, materials, texture, landscaping, trim, and roof shape.

iii. To maintain a compatible scale and massing of streetscape, the rhythm, size, and proportions of openings (windows, doors) shall be compatible with each other.

iv. Building elements that articulate the façades, including porches, bay windows, balconies, railings, fascia boards, first-floor gable projections, and trim designed to the requirements established in the Zoning Code should be used to enhance the character of residential buildings.

Cantilevered windows and projections, window shutters and sills, and dormers enhance the architectural character of the structure.

v. Building façades utilizing elements of one architectural style shall be varied and articulated to provide visual interest. A palette of at least three complimentary architectural styles will be required for incorporation of home designs. Depending on the number of dwelling units within the subdivision, Planning Staff administering Design Review may require additional complimentary architectural styles to be employed, not to exceed six styles. Designs should avoid repeating styles among adjacent dwelling units.

C. LANDSCAPING AND OTHER PROVISIONS

Landscaping is a critical component of any successful subdivision and should be considered an essential part of the design process. Landscaping should complement good architectural design and create a finished product. A rich variety of plantings should be selected and provided appropriately for their intended use. Trees, shrubs, groundcover, and grass areas should be incorporated within subdivisions to create an appealing and comfortable environment for residents and those viewing from public areas.

i. Landscaping for Subdivisions

a. Use landscaping such as clinging vines, espaliers, trellises, and shrubs to enhance the architecture and create and define attractive private open spaces.

b. Visual focal points such as fountains, sculpture, and public art are strongly encouraged to be integrated into the landscaping.

c. Entrances to alleys should be landscaped. Walls in alleys abutting residential uses shall be screened with landscaping such as clinging vines. Landscape areas adjacent to and between garages in alley-loaded residential areas are encouraged.

d. Landscape areas shall be designed using elements pertaining to form, horizontal and vertical lines, hardscape and softscape, and ornate qualities that are compatible to the primary structure. Visual openness should be maintained; planting which completely isolates the public's view from the streetscape is strongly discouraged.

e. Careful water budgeting calculations shall be performed to guarantee the estimated water use for the proposed landscape does not exceed the maximum allowable water use, as directed by the Zoning Code, Chapter 19.570.

1. Landscaping should incorporate the use of water efficient, climate appropriate plants to reduce water demand.
2. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
3. Turf areas should be thoughtfully designed in response to functional needs, and shall be in compliance with the water budget according to the Zoning Code, Title 19.570.
4. Non-living ground cover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.

f. Through the application of an efficient and well-designed irrigation system, water use can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

g. When new single-family residential developments are within or adjacent to a city designated historic district, the landscape design and selected plants should reflect the surrounding area's historic character. Refer to Municipal Code, Title 20, Cultural Resources, the Cultural Heritage Board's Design Guidelines, and the district-specific guidelines.

h. To the extent feasible, existing mature trees and shrubs that represent significant landscaping shall be preserved. Efforts shall be made to fully incorporate the existing preserved landscape elements with the proposed landscape design.

i. Vegetative ground cover that will absorb rainwater and reduce runoff shall be used. Permeable surfaces should be used wherever possibly to reduce paving. Creative grading solutions along with innovative hardscape materials should be considered.

ii. Entry Treatment

a. Entry landscape treatments are encouraged. Entry monument walls, fences, and landscaping must comply with the required sight lines for the minimum stopping distances of vehicles as provided in the Zoning Code. Entry treatments should be constructed with the same materials found within the subdivision. Required ongoing maintenance of entry treatments and landscaping should be considered when designing these spaces.

b. Entry treatments should be reflective and proportional to the size of the project.

c. Subdivision property line walls or sign walls should not be located so that they abut a sidewalk without an intervening planter wall or dedicated landscape setback.

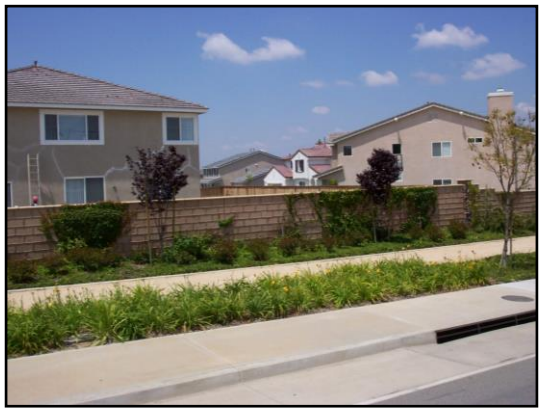
d. Gated subdivisions shall have a controlled pedestrian gate in addition to the vehicle entry gates. Pedestrian entries shall be separated from vehicle entries by a minimum five-foot parkway/landscape area. The vehicle entry and any gatehouse structure shall be located a sufficient distance from the cross street to accommodate vehicle stacking and provide adequate space for vehicle turn-around. This on-site portion of the entry shall be surfaced with a contrasting decorative paving material.

iii. Walls and Fences

a. Design and material elements of walls and fences shall be consistent in style throughout the subdivision or defined phases of the subdivision.

b. Walls shall be required for areas visible to the general public. Combination walls and fences using decorative fence elements such as wrought iron (tubular steel) shall be permitted. Decorative block walls where visible to the public are required.

c. Permitted materials for walls shall be decorative masonry split face block, brick, natural stone, precast



concrete panels, stuccoed walls or other unique wall materials or finishes that integrate well with on-site buildings, as determined on a case by case basis. All walls must feature matching cap material. Perimeter walls should have regularly spaced pilasters, planter alcoves, or similar techniques in variation of the wall's horizontal lines.

d. Landscaping shall be included adjacent to a wall when open to public view and should be used to soften and screen the hard edge appearance of the wall.

e. Walls and fences must comply with the minimum required driver's safety sight line at all intersections and driveways per the Zoning Code.

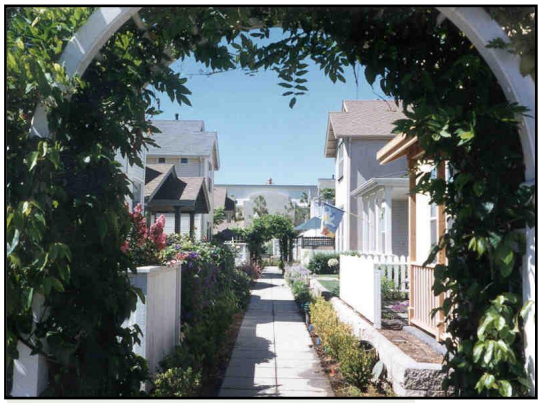
f. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when these residential developments are in the vicinity of planned trails outlined in the General Plan.

iv. Screening

a. Utilities, mechanical equipment, and trash receptacles shall be screened from public view and placed out of the public right-of-way.

b. Utility connections and service locations such as trash storage areas and air conditioning units should be architecturally screened, placed within an enclosed area, or situated out of public view. Landscaping, such as tall shrubs and clinging vines, should be used to soften the appearance of the required permanent screening.

c. Any architectural features used for screening shall be compatible in style and colors of the primary structure on the individual lot.



B. MULTI-FAMILY RESIDENTIAL DESIGN

Multi-family residential uses are lots or parcels containing multiple dwelling units such as townhouses, condominiums, and apartment complexes. The following Guidelines apply only to multi-family residential uses.

1. MULTI-FAMILY SITE PLANNING

Site planning for multi-family buildings includes managing the building's relationship to the street, placement of the building entry, determining building setbacks, and factoring climate considerations into the design.

Location and appearance of the site entry are critical to the public image of a multi-family development. Designs should emphasize the main entrance, place-shared facilities, and common outdoor open space in easily accessible locations to all units, and locate buildings in a manner that respects the street and reinforces street frontages.

Townhouse front entries are emphasized. Varying elevations, building materials, and exterior colors and finishes define the appearance of individual units.

Key site planning guidelines are:

a. The existing setback patterns within the immediate vicinity of the building should be maintained.

b. Locating a building far in front of or far behind the average setback lines of the four to five properties located on either side of the proposed development should be avoided.

c. The side yard and rear yard setback lines prevalent in the area should be respected as required by the Zoning Code.

d. Buildings should be placed in a manner that maximizes solar access during cooler months and limits it during warmer months.

e. Entry treatments should be reflective and proportional to the size of the project.

f. To receive the benefits of light and air, designs should maximize natural ventilation and access to views and avoid a layout in which adjacent buildings obstruct one another. Builders should design multi-family buildings so that sunlight directly enters each dwelling unit during some part of the day year round.

g. Site planning shall be used to integrate multi-family developments with built surroundings. In particular, a strong relationship between the building and the street is encouraged.

    1. Buildings should relate to the street and be located on the site so that they reinforce street frontages.

    2. Buildings should relate to existing and planned adjacent uses.

Front yard setback of townhomes reflects surrounding setbacks of adjacent single-family homes.

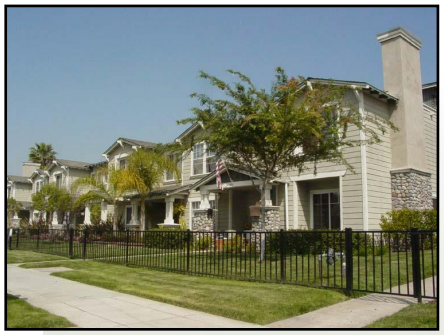
Building frontages oriented toward the street.

3. The building should provide as many private, ground-level entries to individual units as possible.

4. All building entries shall be prominent and visible.

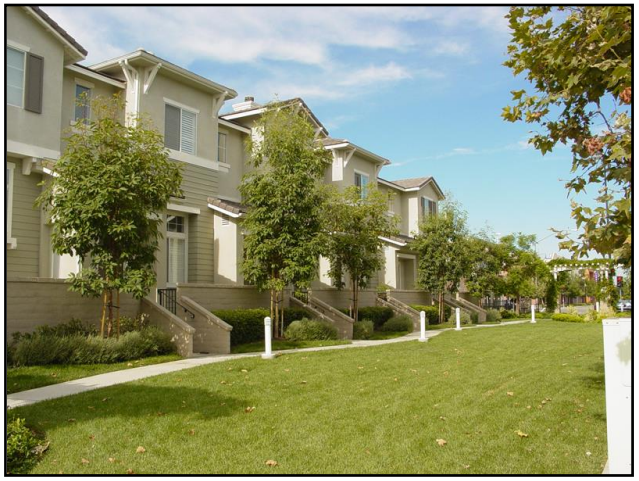
5. Each unit should provide visual identity and an individual address whenever possible.

6. Existing setback patterns shall be maintained. A multi-family project should not be located in front of or behind the average setback line of the neighborhood.



Consistent front yard setback

7. Paseos, gates, pedestrian walkways, crossings, etc. should be used to provide pedestrian accessibility to adjacent uses.



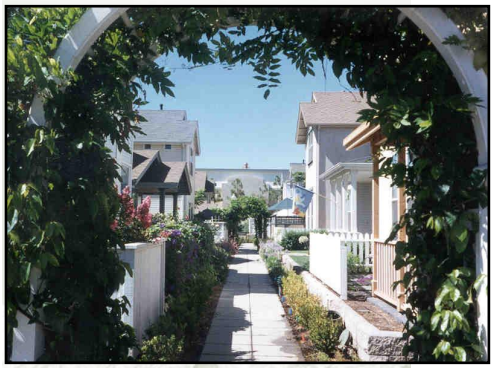
Site dwelling entries to be accessed by paseos, pedestrian walkways and paths adjacent to open space areas and ancillary uses.

Avoid siting dwellings where garages and vehicular access are the prominent features.

Site dwellings across from each other linked by shared open space and pedestrian access.

Avoid siting dwellings where vehicular and pedestrian access are together. Keep pedestrian and vehicular access separate.

For site design of multiple dwelling units, site frontages of units closest to the street towards the street. For interior units, site frontages across from each other accessed by a pedestrian walkway and open space area such as a courtyard or plaza.



Pedestrian walkways shall be included.

a. Pedestrian circulation shall be sited with adequate separation from vehicular traffic.
b. Pedestrian walkways should link dwelling units with facilities in the project, such as common open space, plazas and courtyards, parking areas, and public sidewalks.
c. A trellis(s) shall be placed where pedestrian access abuts a vehicular access to provide screening and clear delineation, when this situation cannot be avoided in site design.

9. Common facilities – such as community rooms and laundries – should be located centrally, and be linked to common outdoor space.
   a. Common, passive and active open space and facilities such as pools, basketball/tennis courts, turf areas, dog runs, gardens, picnic tables, patio and barbeque areas, etc. should be integrated with structure(s). Connectivity between these spaces and dwelling units should be provided at the forefront of the design process.
   b. Buildings and landscaping should be located to maximize solar access during cooler months and to limit it during warmer months. Natural ventilation, sunlight, and views for each unit should be maximized.

Centrally located common open space for recreation and social activities.

2. MULTI-FAMILY SCALE AND MASS

The overall size, shape, scale, and massing of a new building can impact the surrounding neighborhood and may determine how a development is perceived by the community. The height of a new building is extremely important. If a new building is too high, it can overwhelm its neighbors. If a building is too low, it creates a gap in the physical "fabric" of a neighborhood. The overall form of a new building should incorporate as much variety as possible and avoid large expanses of flat wall or roof.

Creating a building whose size and shape generally complement the size and shape of surrounding buildings will go a long way toward making a new development acceptable to the community. At the same time, it will reinforce the perception among residents that the new homes fit within the established character of a neighborhood.

a. The appearance of visual mass of multi-family buildings shall be reduced using scale transitions near adjacent single-family dwellings. Building facades shall be articulated to portray a domestic and pedestrian scale that assigns identity to individual dwelling units.

b. Overall height of new structure(s) shall be similar to that of other buildings in the neighborhood.

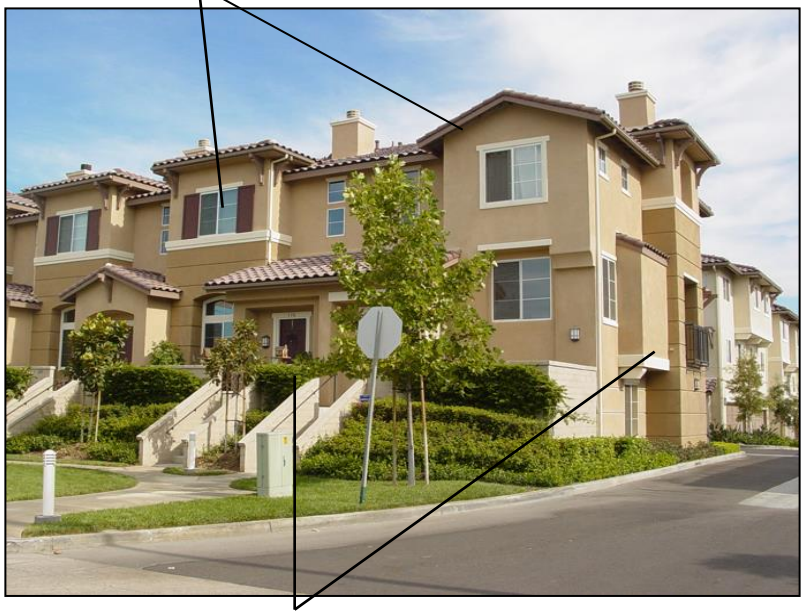
c. The size and scale of new structures should relate to buildings in the immediate neighborhood.

d. Box-like forms shall be eliminated with large, unvaried roofs by using a variety of building forms and roof shapes. This may be accomplished by creating clusters of units, variations in height, setback, and roof shape.

e. Façades of horizontal buildings should be broken into smaller components through the use of vertical adjacent structures.

f. At single-family residential edges, multi-family structures should maintain low profiles to provide a transition between higher density residential areas.
   1. Taller elements of the building, such as upper floors, should be increasingly stepped back from adjacent single-family residences to provide attractive transition between structures and to reduce the visual appearance of mass.
   2. Elements such as hipped and gable roof projections, balconies that do not directly look into windows of single-family homes or private open space areas, and varying building plane recessions can provide the visual relief of mass and bulk.

Varied roof shapes provide visual interest.



Well-articulated building plane projections break up façade preventing box-like appearance.

Varied roof shapes.

Varying height reduces the appearance of visual bulk

Well-articulated façades step back as the height increases

Building forms employing a variety of roof shapes, articulation, height variation, and inconsistent setbacks provide a visually attractive building, unlike large, box-like buildings with blank walls.

3. MULTI-FAMILY PARKING

Parking is sited in a small area located along the side of the dwelling units and close in proximity to the units' entries.

Parking is one of the most difficult issues to address in multi-family housing development projects. Parking can overwhelm the best-designed buildings and open spaces; therefore, it must be handled carefully. Security is another important consideration. Parking areas should allow easy access and surveillance from housing units. Vehicle/pedestrian interactions should be carefully planned, with a focus on minimizing conflicts.

Multi-family parking shall be designed to be consistent with Zoning Code, Chapter 19.580 Parking and Loading requirements, but the following are general guidelines for multi-family parking design.

a. Well-designed, safe parking areas located away from view from public rights-of-way shall be provided. Security and surveillance should be maximized to provide efficient access to building entrances. The design principals of CPTED, Crime Prevention Through Environmental Design, should be carefully considered and incorporated wherever possible.

b. Adequate lighting shall be provided for safety and security purposes, as well as, designed and arranged to be directed onto parking areas and away from residential use.

c. Parking lots should be sited at the rear or side of the site to allow a majority of dwelling units to front on the street.

Garages are integrated architecturally with the structure so that they are not a dominant feature. See guideline III.B.3.b.

d. Garages/carports shall be architecturally integrated with the dwelling unit(s) and be architecturally consistent with the style/design of the principal dwelling unit(s).

e. Multiple small parking lots should be built in lieu of one large lot.

f. Landscaping shall be used for shade and climate control, to enhance project design, and to screen the visual impact of vehicles and large expanses of pavement.

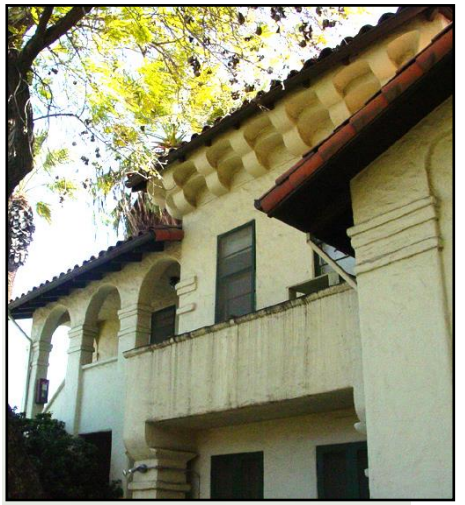
g. Blank walls of parking garages facing the street should be avoided. If blank walls are unavoidable, they should be decorated with artwork, display cases, and/or vines.

h. Parking lots should be sited in proximity to dwelling units to allow for casual surveillance.

i. Bicycle parking facilities should be conveniently located to be accessible to all.

4. HIGH-QUALITY MULTI-FAMILY BUILDING APPEARANCE

A building's appearance is critical to acceptance within the community and to the pride of place it creates among residents. The windows, façade, roof shape, size and rhythm of openings, trim and details, and materials and color should be generally compatible with the surrounding neighborhood. The building should avoid appearing like one large, undifferentiated mass by incorporating as much visual complexity as possible. To the extent feasible, a single development should provide as many dwelling units as possible with individual identities. Finally, special attention should be paid to the design of front doors, as they convey such strong messages about the quality of a development.



Barrel clay tile, decorative cornice moldings, and balconies with arched openings found on this historic Spanish Colonial Revival style apartment building provide a high quality architectural presence. New multi-family development should make every effort to establish a timeless, high-quality, community-sensitive appearance.

What an apartment, townhome, or condominium project looks like says a lot about the value homeowners and property owners place on their neighborhood and community. Every effort should be made to establish a high-quality, community-sensitive appearance for all multi-family development projects.

a. The multi-family residential function of a building should be communicated by encouraging the design of visually appealing buildings featuring varied façades and pleasing compositions.

b. Buildings shall be designed specifically for the site. Stock plans shall not be used.

High-quality design elements for multi-family buildings consistent with an architectural style and/or design, such as gabled framing, exposed rafter tail projections, multi-paned windows, decorative window and door moldings, high-quality natural looking building materials, and column details, can significantly improve the value of a property as well as the neighborhood.

First floor level is raised for privacy and security. See guideline III.B.4.c.

Finish appropriately on all façades to provide continuity.

Rear and side façades are finished consistent to the front. See guideline III.B.4.j.

c. The first floor of the building should be related to the street and should be consistent with the first floors in neighboring buildings.

d. If the building is close to the street, the level of the first floor is encouraged to be raised slightly to maintain privacy.

e. Building elements that provide architectural interest should be incorporated. Height, color, setback, materials, texture, landscaping, trim, and roof shape of structures should be varied.

f. The number of windows should be maximized to enhance views and make spaces feel larger.

g. Rhythm, size, and proportions of windows and doors should complement other good quality buildings in the neighborhood.

h. Architectural elements such as porches, stairs, railings, fascia boards, and trim should be used to enhance the building's character.

i. Simple, unadorned aluminum or similar windows shall be prohibited on any wall visible from a public right-of-way.

J. Accent features such as sills, shutters, false canopies, and multi-paned windows shall be used on all windows.

k. The structure should be treated as a whole and should be finished appropriately on all façades to provide continuity.

High-quality design elements for multi-family buildings can include window shutters, exposed rafter tails, vine-covered trellis, and different building façade materials.

1. Material changes that occur at changes in plane and that appear substantial and integral to the structure are encouraged.
2. Material changes not accompanied by changes in plane appear "tacked-on" and are strongly discouraged.

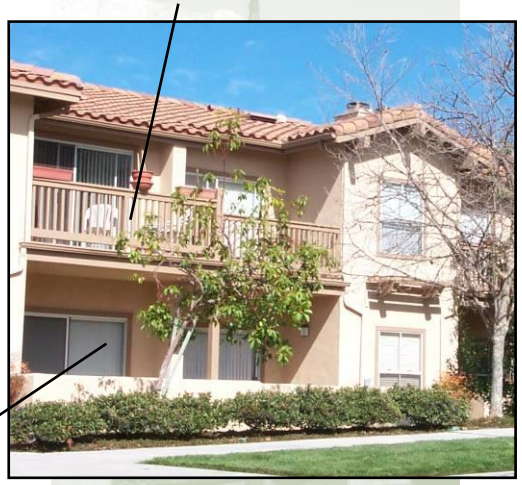
l. The building and its elements should be unified with textures, colors and materials. Materials should be consistently applied and should be chosen to work harmoniously with adjacent materials.

m. For most architectural styles, the number of colors on the exterior should be limited to a maximum of three, with an additional contrasting color for accent.
   1. In general, lighter colors for the main body should be used with darker shades for trim and accent. When both the main body and accent colors are dark, lighter colors and shades should be used for trim and accent.
   2. The larger and simpler the building design, the more subtle the color should be to reduce the massiveness of large wall planes.

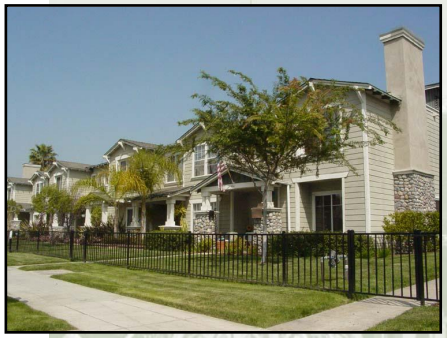
n. Colors that accentuate the architectural details of the building and that are consistent with the architectural style should be chosen. Colors for graphics, such as signs, should be related to the colors used on the building.

5. MULTI-FAMILY PRIVATE OPEN SPACE

Private open space allows for individual outdoor areas where residents can enjoy sun and sky in relative privacy. Multi-family housing developments shall provide private outdoor space for all dwelling units consistent with Zoning Code requirements. Patios, porches, decks, balconies and yards should be of adequate size with easy access from each dwelling unit. Fencing should be considered wherever possible to provide added privacy and to indicate clear boundaries. Special care should be taken when designing balconies to successfully balance the need for light and view with safety considerations. Common storage needs are often overlooked, yet storage areas can be critical in making private open space work for residents.



Private garden patios easily accessible to individual units are screened by wall and landscaping for privacy. See guidelines III.B.5.b-c.



Fencing defines private from public open space. See guideline III.B.5.e.

Well-designed, adequately sized private open space will improve the quality of multi-family housing and shall be considered a necessity rather than an amenity. The following guidelines apply to the design of private open space for multi-family dwellings.

a. Well-designed and adequately sized private open spaces shall be incorporated into multi-family development projects to improve the quality of the project and to create usable and pleasant outdoor private spaces for residents to enjoy.

b. Each unit should be provided with some form of useful private open space, such as a patio, porch, deck, balcony or yard.

c. Private open space should be easily accessible – physically and visually – from individual units.

d. Balconies should be screened for privacy. However, solid walls that prevent residents, particularly small children, from looking out should be avoided.

e. Fencing to ensure privacy and to help define boundaries between public and private open space should be provided.

6. MULTI-FAMILY COMMON OPEN SPACE

Common open space — shared outdoor areas intended for use by all residents — should be as thoughtfully designed as any other space in a development. It is helpful to think of open spaces as outdoor rooms and to design and furnish them with the same care one would any room in a home. Such rooms should be easy to access from any dwelling unit in a complex. They should have clear boundaries so that residents and visitors understand what is common and what is private. Surveillance is also important. As many units as possible should have visual access to open spaces, especially play areas. Finally, common open areas should be designed for use at night as well as during the day. Well-designed nighttime lighting will help ensure that public spaces are attractive and safe after sundown. The following guidelines apply to the design of common open space for multi-family dwellings.

a. Attractive, centrally located, common open space with functional amenities shall be provided. The amount of open space shall increase with the size of a multi-family development to meet the social and recreational needs of residents. Depending upon the project's proposed residential density, the Zoning Code requires amenities to be provided that include: enclosed tot lots with multiple play equipment, pools and spas, barbeque facilities equipped with grill, picnic benches, etc.; athletic court facilities (e.g. tennis, volleyball, basketball, etc.), computer and exercise rooms, clubhouses and multi-purpose rooms equipped with a kitchen and defined areas for games, exercises, recreation, entertainment, etc.; and jogging/walking trails with exercise stations, community gardens, and theaters/amphitheaters.

This small courtyard provides an attractive and secure gathering and passive recreation space.

b. Outdoor open spaces are encouraged to be designed as "outdoor rooms", such as: entries, courtyards, playgrounds, walkways, pedestrian trails, and clubhouse, picnic and pool areas. Undifferentiated, empty spaces are discouraged.

c. Common open spaces should be located so that they can be viewed from individual units, preferably from the kitchen, living room, or dining room.

d. Play area(s) should be located centrally, and designed in a manner that allows for adult supervision from dwelling units and/or from a central facility such as a laundry.

e. The use of landscape elements to help create and define attractive common open spaces is strongly encouraged.

f. Common open space areas should be provided with energy-efficient lighting from a variety of sources at appropriate intensities for safety.

These centrally located common open spaces provide places for recreation and social activities for the residents of these multi-family developments. The areas are also visible from many dwelling unit windows for added safety and adult supervision.

Many windows face open space

7. MULTI-FAMILY LANDSCAPING

Landscaping is a critical component of any successful development project and should be considered an essential part of the design process, particularly for multi-family residential developments. Landscaping should complement good architectural design and create a finished product. A rich variety of plantings should be selected and provided appropriately for their intended use. The following guidelines apply to landscape design for multi-family dwellings.

See the City's Water Efficient Landscaping and Irrigation Guidelines and Zoning Code, Chapter 19.570 for water efficient planting requirements

Rear landscaping softens stark appearance of garage doors on alley-loaded development.

a. Trees, shrubs, groundcover, and grass areas should be incorporated within multi-family development projects to create an appealing and comfortable environment for residents and those viewing from public areas. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

b. Landscaping and hardscape elements such as accent shrubs, trellises, pergolas, and arbors should be used to enhance the architecture and create and define useful public and private spaces.

c. Visual focal points such as fountains, sculpture, and public art are strongly encouraged to be integrated into the landscaping.

d. To the extent feasible, exiting mature trees and shrubs that represent existing significant landscaping shall be preserved. Efforts shall be made to fully incorporate the existing preserved landscape elements with the proposed landscape design.

e. Vegetative ground cover that will absorb rainwater and reduce runoff shall be used. Permeable surfaces should be used wherever possible to reduce runoff. Creative grading solutions along with innovative hardscape materials should be considered.

f. Landscape plant material that is easy to maintain and irrigate is encouraged.

g. The proper placement of evergreen and deciduous trees can provide a balance of shade during the warmer summer months and light or warmth during the cooler months of the year.

h. Careful water budgeting calculations shall be performed to guarantee the estimated water use for the proposed landscape does not exceed the maximum allowable water use, as directed by the Zoning code, Chapter 19.570.

1. Landscaping should incorporate the use of water efficient, climate appropriate plants to reduce water demand.
2. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
3. Turf areas should be thoughtfully designed in response to functional needs, and shall be in compliance with the water budget according to the Zoning Code, Title 19.570, Water Efficient Landscape and Irrigation.
4. Non-living groundcover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.

i. Through the application of an efficient and well-designed irrigation system, water use can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

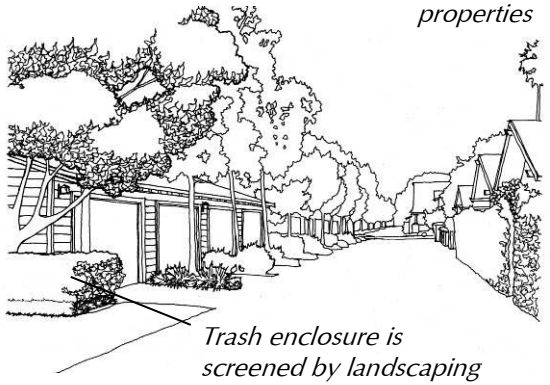
j. Paved areas, especially parking lots, shall be shaded according to zoning requirements.

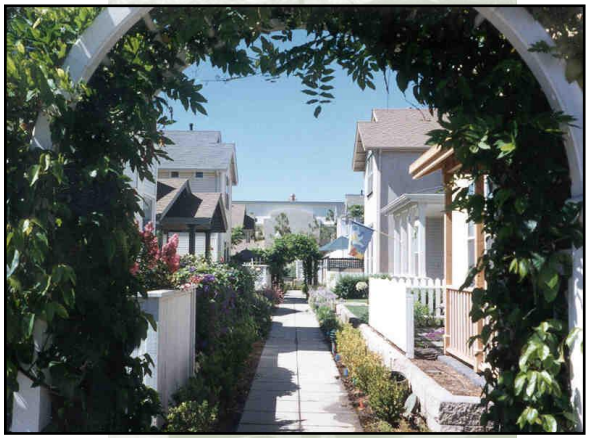
k. Seating options in landscaped areas should be provided and incorporated into the overall site design.

l. Entrances to alleys should be landscaped. Walls in alleys abutting residential uses shall be screened with landscaping such as clinging vines. Landscape areas adjacent and between garages in alley-loaded residential areas are encouraged.

m. Appropriate lighting should be provided to ensure that paths are safe at night.

Recommended landscape treatment of rear yard for alley-loaded residential properties





n. Up-lighting of landscape elements, building façades, and architectural features, where the source of light is below grade or hidden, is encouraged.

o. Pedestrian walkways should be safe, visually attractive, and well defined by landscaping and lights.
   1. Use of varied paved surfaces and decorative hardscape is encouraged. The use of durable pervious paving material should be used whenever possible.
   2. At a minimum, decorative paving should be used to delineate crossings at circulation drives and parking aisles.

8. MULTI-FAMILY FENCES AND WALLS

Fences and walls are used to demarcate space, private space and public space. More so than single-family housing, the design of walls and fences is a critical component to the aesthetic of a project. With multiple dwelling units there typically are much smaller spaces being fenced and walled, which therefore make fences and walls appear more prominent. Fences and walls can provide security and demarcation of private and public space, while creating visual openness and visual interest.

a. The design of fences and walls shall be architecturally compatible with, and of the same architectural style as, the primary structures. The fences and walls shall be made of low maintenance, durable materials. Wood fences are typically not acceptable. Fences and walls are required to screen unsightly views.

Patio walls are consistent with dwellings.
See guideline III.B.8.a.

b. Permitted materials for walls shall be decorative masonry split face block, brick, natural stone, precast concrete panels, stuccoed walls or other unique wall materials or finishes that integrate well with on-site buildings, as determined on a case-by-case basis. Slump stone and precision block are not considered decorative materials and shall not be permitted as acceptable wall materials. All walls must feature matching cap materials.

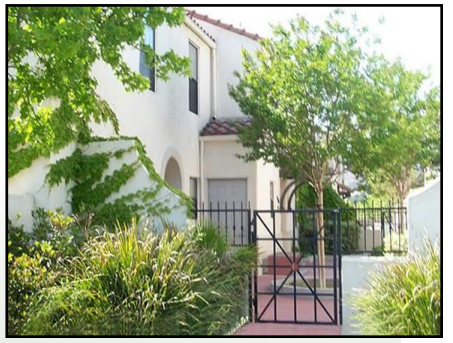
c. The design of fences and walls should create a visual openness with a decreasing level of opaqueness as the height of the fence or wall increases.

d. Landscaping shall be included as part of the design for the fence or wall and should be used to soften and screen large masses of blank wall surface area.

e. Under the Design Guidelines and Zoning Code, wall height is limited primarily for aesthetic reasons. Limitations on maximum wall heights could reduce the ability to maintain noise levels in some locations to levels required by Title 24 of the California Code of Regulations and the Title 7 of the Riverside Municipal Code. In the cases where mitigation measure MM Noise 1 of the City's General Plan 2025 EIR is implemented, the City may consider increasing wall height as one measure to reduce noise to acceptable levels. In such high level noise situations, combinations of setbacks, site design, berms, and solid walls, including walls higher than normally permitted by Code or these Design Guidelines, may be used to achieve noise standards.

f. Walls and fences must comply with the minimum required driver's safety sight line at all intersections and driveways per the Zoning Code.

g. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when these residential developments are in the vicinity of planned trails outlined in the General Plan.



Landscaping frames and softens the garden wall. Wall decreases in opaqueness with wrought iron.

Fencing defines private from public space while creating visual openness.
See guideline III.B.8.ct.

9. MULTI-FAMILY PRIVACY PROTECTION

Building height, the placement of windows and entries, setbacks, and landscaping all contribute to the level of privacy between adjacent properties. New two-story buildings with windows directly facing an adjacent existing residential building and private yard may adversely affect the privacy of adjacent units. Simple measures such as purposeful window placement and/or planting of tall trees can help protect residential privacy.

Ensure that new multi-family residential buildings are designed and constructed to protect the privacy of adjacent residential properties.

a. New two-story residential buildings directly adjacent to one-story residential buildings shall be set back and oriented to respect the privacy of the one-story building.

b. The direct line-of-sight between dwelling units, specifically bedrooms and bathrooms, should be minimized by orienting windows, balconies, and entryways so they do not directly face into adjacent property windows or private open space.

c. Landscaping should be used as screening to enhance residential privacy.

IV. Commercial and Mixed Use Design Guidelines

This section provides design guidelines that apply to development in Commercial and Mixed Use zoning. These structures can promote a pedestrian-friendly environment that positions storefront display windows at the sidewalk edge, promotes high-quality construction and materials, provides awning shade at the storefront level, articulated entries and pedestrian-oriented signs. These buildings define the pedestrian zone and provide a sense of human scale and visual interest.

This pedestrian-oriented design character also provides a great opportunity to reinvent sound development practices that re-establish the "village commercial" area accommodating a mix of land uses where residential and/or office uses are combined with service or retail commercial functions to create a mixed use context. Design guidelines for stand-alone commercial and mixed use development are as follows.

A. Commercial

Design of commercial development is not only an aesthetic issue, but also an economic development concern. Site design, good visibility, property maintenance, and landscaping all improve the economic performance and attractiveness of shopping centers. Large parking lots, deferred maintenance, the proliferation of truck parking, and poor storefront presentations give commercial development a barren and unattractive character. Improvements in these areas can help revitalize Riverside's neighborhood centers.

IV. Commercial and Mixed Use Design Guidelines

The City supports rehabilitation and revitalization efforts through sustainable and creative site planning, site reconfiguration, design strategies, and building standards. The General Plan sets increased intensity standards and the introduction of mixed use opportunities for several existing neighborhood shopping centers. These standards and land use opportunities will allow for greater lot coverage and increased flexibility in terms of design and appearance. Using these tools, renovated commercial shopping centers can incorporate more modern designs, increase visibility, improve landscaping, and create a more pleasant shopping environment.

The following design strategies and the Green Design Guidelines will help create comfortable, attractive, pedestrian-friendly, well-designed, and sustainable neighborhood centers with uses that meet the needs of local residents. The Zoning Code reinforces these strategies with consistent development requirements.

The relationship between structures, open space, automobiles, and pedestrians has a large impact upon street cohesiveness, accessibility, and comfort. Too often the design of a site from all angles is not given adequate consideration, resulting in piecemeal orientation of structures, inadequate parking and pedestrian access, and inadequate buffering from incompatible land uses. Good site plan designs that are pedestrian-friendly, create an active street environment, and reduce visual impacts should be encouraged.

Since commercial shopping centers are typically located adjacent to residential uses, it is important to lessen impacts of neighborhood commercial centers on adjoining residential properties. The size and scale of the new commercial structure must relate to the prevalent scale of other buildings in the immediate neighborhood. Designers should relate the overall height of new structures to adjacent structures and buildings in the immediate neighborhood. In addition, buildings should avoid appearing as one large, undifferentiated mass through incorporation of visual complexity.

B. Mixed Use

Mixed use development combines commercial, office, and residential uses within a single building or on a single site. The success of mixed use derives from the notion of creating a market of mutually complementary and supportive services and activities. Critical design components contributing to the success of this building type include pedestrian interaction and connectivity, human scale, signage, lighting, and parking.

Encouraging human activity at the street level is paramount to the success of the commercial component at the base of a mixed use building. Fundamental design strategies should include a clear demarcation between commercial areas, streets, semipublic open spaces, and private areas such as unit entries, courtyards, and decks. There must be a distinct separation of the commercial entrances from the residential access and a clear identity for each use.

Critical design components of mixed use development include pedestrian interaction and connectivity, human scale, signage, lighting, and parking.
See IV.B.

C. SITE DESIGN

Landscaping and planters, paving, and display windows create an inviting environment for pedestrians.
See guideline IV.C.2.

This section includes guidelines for building placement and orientation, inclusion of outdoor spaces, service access and equipment screening, location of required parking, and parking lot landscaping and lighting. Refer to the Green Design Guidelines for additional site design considerations and information.

1. A building's front should be aligned at the sidewalk edge to provide interest at the street level and enhance the pedestrian experience. Where portions of a building are set back from the sidewalk, the areas must be treated as a plaza or courtyard.

2. Develop the ground floor level of a building to encourage pedestrian activity. The he linear frontage of the building should incorporate pedestrian-oriented elements such storefronts with transparent display windows or display cases, outdoor dining areas, public art, awnings, trellises, window boxes, and other landscape elements, such as shade trees and benches.

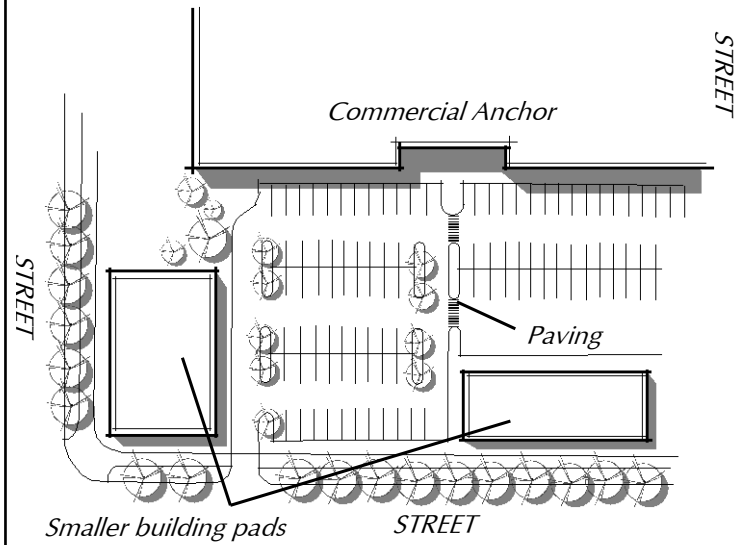
Revitalized commercial area with façades fronting the street, ground floor retail and pedestrian-oriented elements such as awnings, outdoor dining areas, and landscaping.
See guideline IV.C.1 and 2.

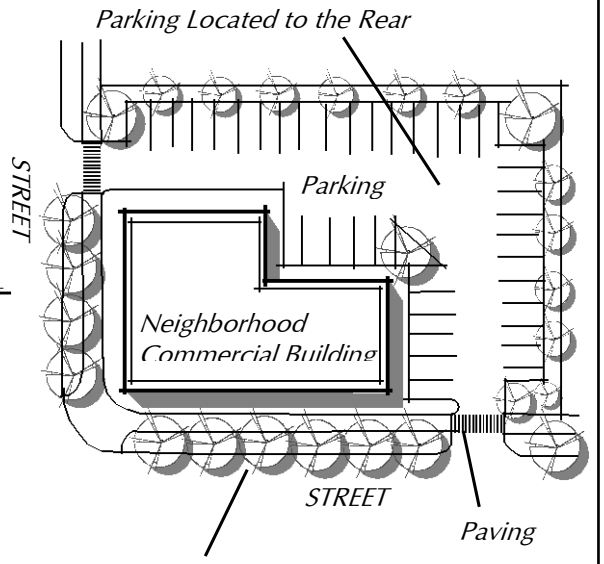
1. Building Placement and Orientation

a. Where appropriate, buildings should be located toward the front of the property, with front building façades at or near the back of sidewalk.

b. Buildings should be oriented to minimize the visual separation between structures.

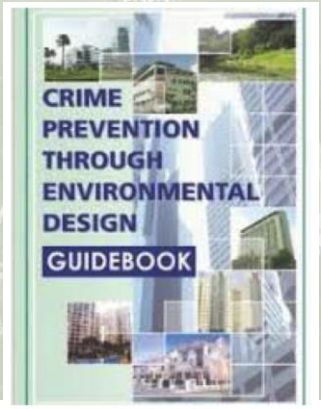
Smaller buildings are encouraged to be sited along the street, and particularly at corners, to create an identifiable street edge. Large commercial anchor stores should be located to the rear, adjacent to large parking areas.





Hardscape treatment, such as the use of pavers, creates an added interest to walking areas. See guideline

CPTED design and implementation resources can be found online.



c. Design outdoor spaces to enliven the sidewalk level and provide for private and common open space for employees and residents. These outdoor spaces are encouraged to include:

1. A courtyard at sidewalk level, set in line with the building front.
2. An interior courtyard with a major entrance should be clearly visible from the street.
3. Upper-level decks, balconies, and rooftop gardens are encouraged as private open space.

d. Courtyards are encouraged as places for outdoor commercial activities. Trees, trellises or similar shade elements to be designed into a courtyard are encouraged.

e. During the early stages of site design, consider incorporating the principals of CPTED, Crime Prevention Through Environmental Design, to ensure the most responsible site layout.

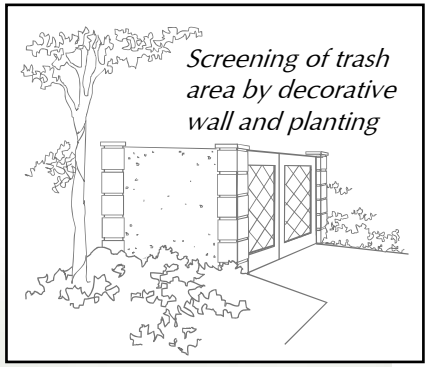
f. Design buildings with the primary entrance oriented toward the street. The primary entrance should convey a sense of human scale by framing the space through the use of architectural and landscape features.

g. Direct access from the sidewalk to the primary entrance of the building is encouraged. Such pedestrian access should be enhanced with landscape and/or paving improvements. Recommended landscape improvements include potted plants and accent trees. Recommended paving treatments include concrete paving with surface finish and decorative scoring or tile or brick pavers.

h. Encourage strong pedestrian circulation throughout a commercial center linking parking areas, street sidewalks, buildings, plazas, private open space, and adjacent commercial properties.

i. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when these residential developments are in the vicinity of planned trails outlined in the General Plan.

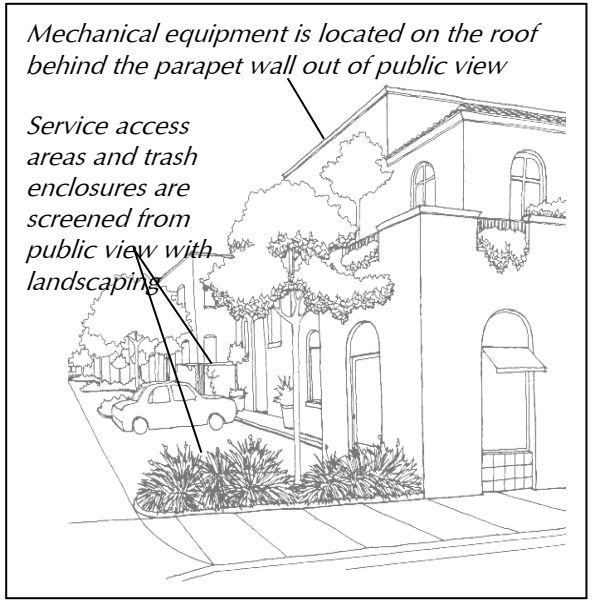
j. Buildings are encouraged to be placed toward the front of the lot, with parking and loading in the rear of the lot to give the visual impression of increased lot coverage from the street. Blank walls and a vacant lot appearance are inappropriate, as they discourage pedestrian movement.



2. Service Access and Equipment Screening

To reduce the visual impact, service areas and mechanical equipment shall be located out of public view. The following guidelines should apply.

a. Service access areas, including loading areas and docks, service yards, and refuse/recycling enclosures should be located out of public view. Do not front these areas onto a primary street.



b. In addition to any permanent architectural enclosures required by the Zoning Code, landscaping, such as tall shrubs and clinging vines, should be used to screen these areas, especially for those properties whose side yard fronts primary street or abuts a residential property.

Walls with clinging vines screen accessory areas. See guideline IV.C.2.b.

c. Mechanical equipment shall be located behind or on top of the building, screened from public view with permanent architectural elements, such as parapet walls. Any architectural features used for screening shall be compatible in style and colors with on-site buildings.

d. The outer edge of drive-through lanes should be screened from the public right-of-way. Other elements such as services station pumps are encouraged to be screened as well.

Service equipment is adequately screened with landscaping. See guideline IV.C.2.a.

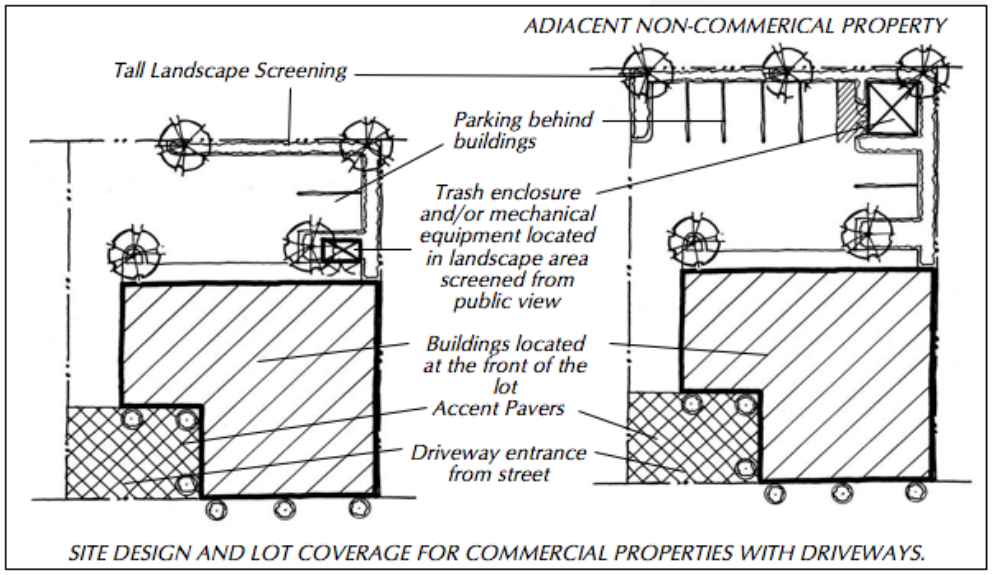
3. LOCATION OF REQUIRED PARKING

a. Locate on-site parking to minimize visibility from the sidewalk. Parking should not be located so that it interrupts the storefront continuity along the sidewalk.

b. Where appropriate, place on-site parking behind the building at ground level.

c. Design parking to encourage the accessibility from the rear of the property on parcels with alleys. For parcels without alley access, driveways should be minimized in width and provide for good visibility of pedestrians.

Pedestrian walkways create easy passage to buildings from parking areas. See guideline IV.C.3.d.

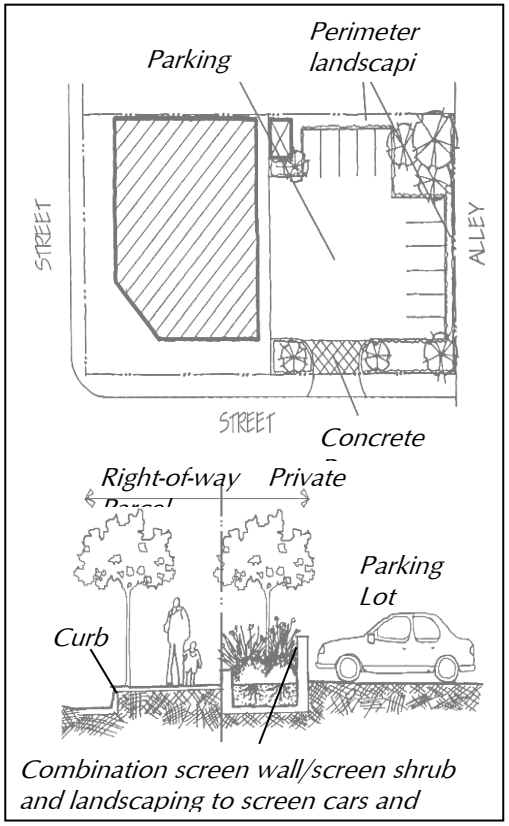


SITE DESIGN AND LOT COVERAGE FOR COMMERCIAL PROPERTIES WITH DRIVEWAYS.

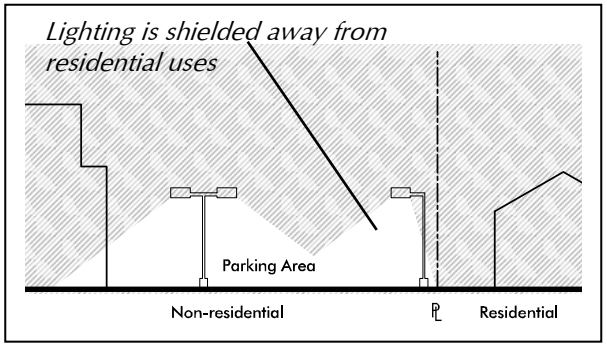
d. Design and locate off-street parking to minimize conflicts with pedestrians and to minimize the physical and visual impact to the traditional streetscape appearance. Where practical, adjoining uses should share parking to minimize the number of parking lots, driveways, and surface hardscape area.

e. Bike parking for commercial uses should be conveniently located within the sidewalk or front courtyard. Placement of bike racks should be carefully considered to minimize conflicts with pedestrian travel.

f. Design parking lots to be arranged into smaller island areas with pedestrian connectivity.



Combination screen wall/screen shrub and landscaping to screen cars and



4. Parking Lot Landscaping and Lighting

Particularly with stand-alone commercial development, landscaping with mature shade trees and adequate lighting are important components to the attractiveness and safety of parking lots. The parking lot landscape and lighting guidelines are as follows:

a. Perimeter planter – Design and locate perimeter planters and plantings for the purpose of creating a physical barrier, visual screen, and shading of the parking lot area. The parking lot and perimeter landscape should also be designed for safe and convenient pedestrian circulation throughout, including designated paths across perimeter planters.

b. Parking lot light sources should be designed, located and/or shielded to prevent light spillover onto abutting residential property.

c. Trees shall be planted at a ratio of one tree for every four parking spaces.

d. Landscaping should be in scale with adjacent buildings and be of appropriate size at maturity to accomplish its intended goals.

Avoid impenetrable parking lot planting that does not allow safe and convenient pedestrian circulation as illustrated by this continuous hedge planting above.

Parking lot planting shall provide an attractive physical barrier and adequate shading. Using depressed parking lot planters allows additional drainage opportunities.

e. Landscaping around the entire base of buildings (except loading and service areas) is recommended to soften the edge between the parking lot and the structure. This should be accentuated at entrances to provide a focal point. Refer to Section D. Architectural Design, 5. Landscaping for additional guidance.

f. Trees should be distributed throughout the parking lot within center row planters and diamond planters and not simply at the ends of parking stalls. In order to be included as part of the parking lot tree requirement, the tree's canopy must shade the parking areas.

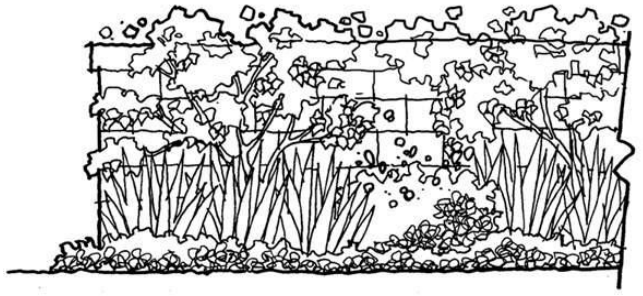
g. Landscaping should be protected from vehicular and pedestrian encroachment by raised planting surfaces, depressed walks, or the use of concrete curbs. Concrete mowstrips are required per development regulations between turf and shrub areas.

h. Consider using depressed landscape planter areas for the additional function of a creative drainage solution by providing openings in the concrete curb to allow for drainage and infiltration opportunities throughout the site.

i. Landscaping should consist of a variety of plant materials (minimum of three types of trees, three types of shrubs, and two types of groundcover) that are climate appropriate and water-efficient. A mix of deciduous and evergreen trees should be used. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

See the City's Water Efficient Landscaping and Irrigation Code Chapter 19.570 for water-efficient planting requirements.

j. Landscaping should be used to soften views of parking lots, loading areas, trash enclosures, storage areas, utility areas and any large blank walls. All backflow preventers, gas meters, transformers, air conditioning condensers, above ground pipes and valves or any other equipment shall be screened with appropriate planting.



Blank wall-surface area appropriately screened with clinging vines and additional ground landscaping.

k. Careful water budgeting calculations shall be performed to guarantee the estimated water use for the proposed landscape does not exceed the maximum allowable water use, as directed by the Zoning Code, Chapter 19.570.

1. Landscape should incorporate the use of water efficient, climate appropriate plants to reduce water demand.
2. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
3. Turf areas should be thoughtfully designed in response to functional needs and shall be in compliance with the water budget according to the Zoning Code, Title 19.570, Water Efficient Landscaping and Irrigation.
4. Non-living groundcover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.

l. Though the application of an efficient and well-designed irrigation system, water can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

m. Graded slopes shall be provided with sufficient landscaping and irrigation coverage for erosion control and to soften the view to cut and fill slopes from surrounding public views.

n. Landscaping shall be used to screen parking lots from street view in compliance with the Zoning Code (Section 19.580.090 (B)) through the use of:
   i. a three-foot high landscaped berm with a maximum of a 4:1 slope ratio, low volume irrigation should be used to reduce water run-off;
   ii. a three-foot high shrub row, with all shrubbery to be located towards the rear of the landscaped setback; or
   iii. a combination of the above two items, or an alternative buffer subject to the written approval of the Community & Economic Development Director.

o. Within the parking lot, closely spaced shrubs, at a minimum size of five-gallon containers shall be provided within the end row planters and finger planters to discourage pedestrian traffic through the landscape areas. The pathways should be clearly designated and logically located to allow pedestrians to pass through the planter areas in convenient and safe manner.

p. Within the parking area, shade trees shall be provided per the Zoning Code requirements. Tree planter areas shall be a minimum of 40 square feet and designated as follows:
   i. Tree Wells: One tree shall be provided within each tree well centered between the stalls.
   ii. End Row Planters: One tree shall be provided within each end planter, next to each parking stall. Two trees shall be provided at the end of each double row of stalls.
   iii. Finger Planters: One tree shall be provided within each finger planter, centered with the adjacent parking stall.
   iv. Strip Planters: One tree shall be provided in line with the edge of the parking stall.

5. Specific Guidelines for Mixed Use Development

A. Pedestrian Space

1. Creation of a pedestrian-friendly environment with the inclusion of landscaping and/or a hard-surface expansion of the sidewalk in the front setback area is strongly encouraged where feasible.
   a. Walkway connections to building entrances that use special paving treatment or materials are encouraged.
   b. Awnings, canopies and arcades are encouraged to provide visual interest and shade.
   c. Benches and other street furnishings are also encouraged.

2. In pedestrian areas, where there is generally no front yard setback (0-foot setback), a portion of the front building elevation should be set back to allow for outdoor use, such as outdoor patio dining, display, public art, entry forecourts, or other amenity appropriate to an urban setback.

3. During the early stages of site design, consider incorporating the principals of CPTED, Crime Prevention Through Environmental Design, to ensure the most responsible site layout.

Plazas adjacent to buildings can create lively pedestrian spaces. See guideline IV.C.5.A.1.

B. BUILDING SITING, ORIENTATION, AND ENTRANCES

1. Buildings should be sited to avoid random and irregular building relationships; arrange buildings to create a sense of unity and overall harmony.
   a. Whenever possible, cluster new structures to create plazas and pedestrian malls; avoid the creation of "barrack-like" rows of structures.
   b. When clustering is impractical, a visual link should be established between separate structures through the use of an arcade system, trellis/pergola, or other open structure.

2. The main entrance or entrances should be oriented to the street or major plazas or open space.
   a. Main entries to buildings should be clearly demarcated, visible and accessible from the street and/or pedestrian walkways.
   b. Secondary entries should be provided from parking areas where feasible.

3. Commercial facilities in mixed use projects are encouraged to be oriented to the street, with parking generally located in the rear or sides of buildings.

4 Screening of parking area perimeters and driveways adjacent to streets and sidewalks with attractive low walls, fences, or landscaping is encouraged. Landscape berms may also be used but should not exceed a 4:1 slope ratio and should use low volume irrigation to reduce the amount of water run-off.

5. Entry treatments should be reflective and proportional to the size of the project.

6. Residential structures should be oriented to promote privacy to the greatest extent possible.

   a. Residential windows should face away from loading areas and docks.
   b. To the extent residential windows face the windows of an adjacent unit, the offsetting of windows to maximize privacy is encouraged.

7. Buildings with residential and nonresidential uses located on the same floor should be designed to have separate entrance hallways and balconies.

8. Windows, balconies or similar openings should be oriented to not have a direct line-of-sight into adjacent units within the development. Units above the first story should be designed so that they do not look directly onto private patios or backyards of adjoining residential property or units.

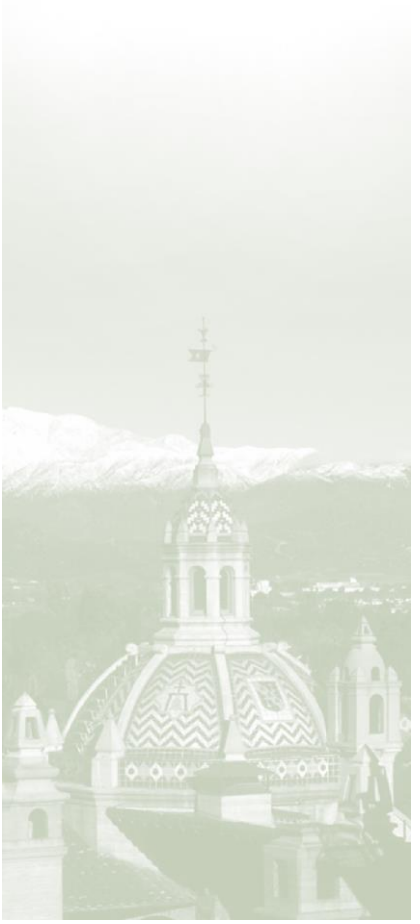
9. To reduce noise impacts, residential units shall be designed to reflect building orientation and include building elements such as double windows, wall and ceiling insulation, and orientation of and insulations or vents.

10. Residential units should be designed to provide separate and secured entrances and exits directly accessible to secured parking areas. Where residential units are in the same structure as a commercial use, access to residential units should be designed as a separate and secured area located at the ground level.

C. VEHICLE CIRCULATION AND ACCESS

1. Vehicular access and internal circulation shall be located to promote safety, efficiency, and convenience. Vehicular traffic shall be adequately separated from pedestrian circulation. Vehicular entrances shall be clearly identified and easily accessible to minimize pedestrian/vehicle conflict.

2. The number of site access points or driveway aprons shall be minimized for aesthetic purposes and to achieve efficient and productive use of paved accessways. Common driveways that provide vehicular access to more than one site are encouraged.



D. PEDESTRIAN CIRCULATION

Pedestrian walkways create lively linkages throughout a mixed use project. See guideline IV.C.5.2.

Plazas and courtyards create dynamic outdoor pedestrian activity areas ideal for outdoor cafes and restaurant seating. See guideline IV.C.5.E.1

1. All new projects should be designed and oriented to enhance pedestrian movement to, and between, adjacent uses.

2. Include pedestrian walkways.
   a. Pedestrian circulation elements should be adequately separated from vehicular traffic.
   b. Pedestrian walkways should link dwelling units with common open space, plazas and courtyards, parking areas, public sidewalks, and the compatible commercial facilities in the project.

3. Pedestrian walkways should be safe, visually attractive, and well defined by landscaping and lights.
   a. Use of varied paved surfaces and decorative hardscape is encouraged.
   b. At a minimum, decorative hardscape should be used to delineate crossings at circulation drives and parking aisles.

4. Transit shelters should be sited near major concentrations of residents and employees.
   a. It is encouraged to architecturally integrate freestanding shelters to the project with respect to color, materials and architectural style to the extent allowed by the transit provider.

5. Landscape planters should be located with careful consideration of pedestrian circulation patterns

E. Plazas, Courtyards, and Other Open Space Areas

1. New development should incorporate plazas and courtyards into their design. Buildings should be clustered to create usable pedestrian areas.

2. Landscaping, water features, and public art should be incorporated into plaza and courtyard design. Shade trees or architectural elements that provide shelter and relief from direct sunlight should be provided. The proper placement of evergreen and deciduous trees can provide a balance of shade during the warmer months and light or warmth during the cooler months of the year.

3. Open space areas should be designed to provide large meaningful and useable areas.
   a. Common open space areas should be convenient to the majority of dwellings and should be secure and visible from dwellings to ensure safe use.
   b. Common open space areas should contain amenities appropriate to the project's size.

4. During the early stages of site design, consider incorporating the principals of CPTED, Crime Prevention Through Environmental Design, to ensure the most responsible site layout.

5. Private open space should be contiguous to the unit they serve and should be screened from public view for privacy. All balconies and patios that front a public street should be substantially enclosed to screen items being stored on the balcony or patio.

This common open space area uses amenities to create a passive comfortable area for pedestrians.
See guideline IV.C.5.E.1.

F. PARKING

1. Parking spaces should be specifically designated for non-residential and residential uses by the use of posting, pavement markings and/or physical separation. There should be separate entrances and exits, or a designated lane for residents, to minimize waiting times for residents.

2. It is encouraged to site and architecturally integrate parking structures with the project design to minimize their visual impact. Parking structures should be designed to include architectural detailing, façade treatment, artwork, landscaping or similar features to enhance the street façade.

3. Shared driveways and parking arrangements between commercial uses are strongly encouraged.

D. Architectural Design

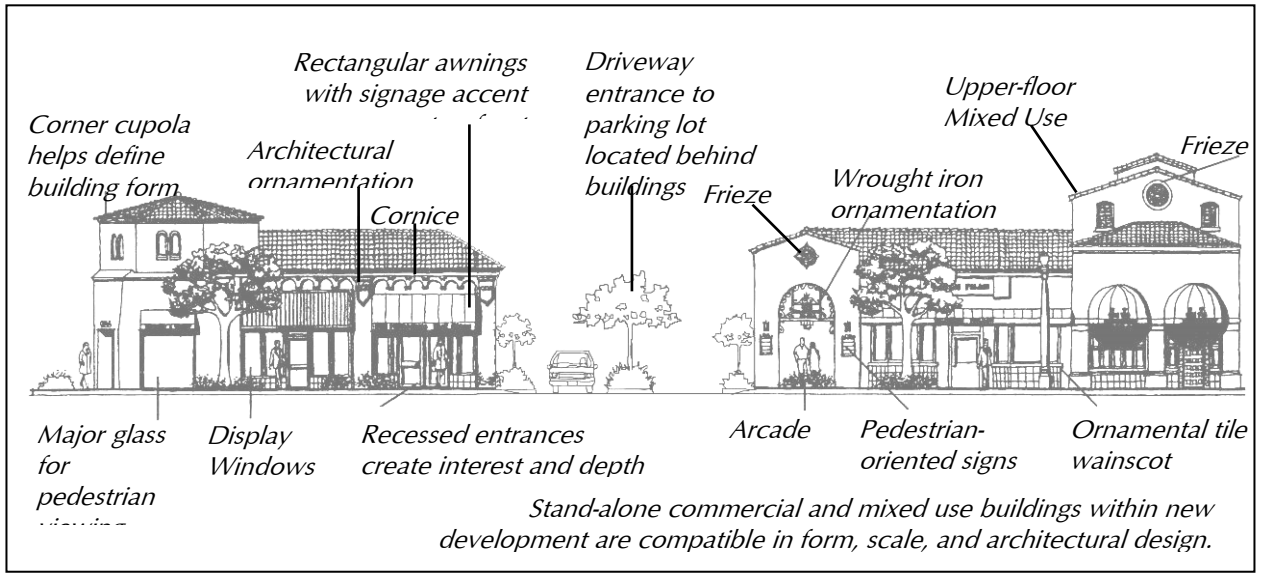
1. Form, Mass, and Scale

a. The scale and mass of a new development should be consistent with neighboring developments and not overwhelm them with disproportionate size or a design that is out of character.

b. At residential edges, buildings should be stepped down to provide a transition between urban and residential areas. Increasingly step back taller elements of the building from adjacent single-family residences.

c. Delineate new buildings and additions both vertically and horizontally to reflect traditional patterns and convey a human scale. A clear visual division between street level and upper floors should be incorporated through the change of materials, colors and/or canopies and awnings.

d. Avoid designing large monotonous façades, long straight-line building fronts, plain box shapes, and barren exterior treatment.



Stand-alone commercial and mixed use buildings within new development are compatible in form, scale, and architectural design.

e. Building form should be used to emphasize individual units within a building, larger units and/or anchor stores within retail projects, and foyers, lobbies, and reception areas within non-retail commercial projects. Use building form and articulation to emphasize public entrances and de-emphasize service areas, and to define and shelter pedestrian walks and exterior spaces.

f. To minimize the transition between new and older buildings, new structures should be compatible with the height of adjacent and nearby buildings. Window and entrance openings on the street level shall be a minimum of ten feet in height. Upper floor windows shall be divided into individual units and not consist of a "ribbon" of glass. Primary upper floor windows should have a taller vertical dimension.

g. To avoid inappropriate massing of buildings, articulation between the street-level and the second floor is encouraged. For new two-story buildings to be developed adjacent to one-story buildings, the size (mass) of the second floor should be reduced by stepping back the second floor structure from the ground floor. This design provides the opportunity for creative outdoor space while reducing the appearance of mass as compared to the adjacent one-story structure.

h. Recessed entries, arcades, and covered awnings articulate human scale and are encouraged.

i. Prominent corner buildings should be designed to invite pedestrian activity.

j. The use of square cupolas, towers, and similar architectural features at the front corner to define building form and scale and provide visual interest is encouraged.

k. Upper story decks, balconies, and/or rooftop gardens for outdoor seating, dining, and upper floor entries can be incorporated.
   i. Balconies on the front façade should be located and designed to minimize potential conflicts with pedestrian traffic on sidewalks below.
   ii. Balconies should be appropriately scaled and incorporated into the overall design of the building.
   iii. Projecting balconies should not obscure visibility of signs or storefronts.
   iv. Consider environmental conditions such as sun, shade, and prevailing winds when designing decks, balconies or rooftop garden spaces.

l. Parapet walls should be used for screening flat roofs and articulating the building design. These walls should be detailed with architectural elements such as cornices and brackets should be used to define the building roofline. Low-pitched roofs with wide, overhanging eaves and decorative brackets can be used in conjunction with parapet walls.

The building, tower, and plaza orient to the corner of the street intersection. See guideline IV.D.1.i.

2. Façade Treatment

Guidelines for façade treatment pertain to the exterior appearance of a commercial or mixed use structure from the public right-of-way, typically emphasizing the storefront. Treatment of the façade includes design of storefronts, windows, building entrances, awnings, architectural details, and building materials, colors, and finishes typically consistent with an architectural style. The following guidelines for treatment of façades apply:

Building façade is articulated with recessed wall planes giving the appearance of many storefronts as opposed to one long storefront. Natural stone bulkhead, varying yet proportional window heights, and awnings break up the stucco façade. See guideline IV.D.2.

a. All visible building façades should be subject to significant architectural detailing. However, the front building façade commonly receives more attention with higher quality finish materials and more ornamentation than an interior side or rear façades. Corner lots are considered to have two fronts and each façade should receive significant architectural detailing.

b. Additions to historic structures must be architecturally compatible with the existing structure.

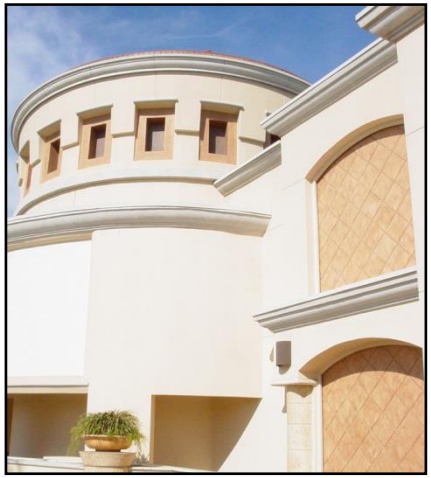
c. Commercial façades should be modulated at least every 50 feet with changes in building mass or façade treatment. Articulate façades to show this separation with projected entrance windows, roof form or other architectural features.

d. Building articulation and detailing shall be used to create an interesting and individual design.

The articulation of all building elevations visible from a public way with building elements and architectural details that incorporate the chosen design theme in a consistent manner is encouraged.

e. Building façade design should give individual identity to each vertical module of residential units.
   i. Techniques such as providing a deep notch (in plan) between the modules should be used.
   ii. Architectural elements between units with window color, roof shape, window shape, stoop detail, and railing type should be varied.
   iii Porches and balconies are encouraged.

f. The color or materials of each individual module within a harmonious palette of colors, finishes, and materials should be varied.



A. Storefronts

Storefronts should be oriented toward the street and the pedestrian with a clearly defined primary entrance and large display windows that draw attention inward. Architectural elements seen on traditional storefronts include recessed entries, recessed display and transom windows with decorative kickplates, and flush façades with covered awnings projecting over a walkway. The following storefront guidelines apply:

1. Continuous storefronts should generally not span more than 25 feet. Wall planes that extend more than 25 feet should be articulated horizontally or the architectural treatment varied in a significant way so as to give the appearance of two or more individual storefronts rather than a single massive one.

2. Storefronts should be articulated with reliefs, recesses, and/or pilasters and should incorporate a change of materials, colors and/or canopies and awnings to show a clear visual division between street level and upper floors.

B. Window Treatments

Fenestration refers to the design and placement of windows on the façade. The following guidelines for design of window treatments apply:

1. The style of window treatments should be consistent throughout the building. Upper floor windows should have a vertical orientation.

2. For additions to existing structures, the window treatment should be compatible with the primary structure.

3. For storefront fenestration, a transom window should be placed above the display window and both windows should be architecturally consistent to each other. Windows with true divided lights and raised exterior mullions are preferred.

4. Windows accented with architectural elements appropriate to the primary structure's architectural style are encouraged.

5. Recessed window openings decoratively accented with materials consistent to the building are encouraged.

C. BUILDING ENTRANCES

For issues of safety and visual recognition, primary entrances should be clearly identified and oriented toward the street. Entries should convey a sense of human scale and be welcoming as specified in the following guidelines:

1. To create the desired overall pedestrian scale at the street level, storefronts should be oriented toward the street. Primary entrances shall be articulated either with recessed entries or projecting overhangs above the entrance.

2. For properties located on a corner, entries oriented toward the corner, at an angle, as opposed to the middle of the façade are strongly encouraged. If an entry cannot be provided at the corner, a display window should be oriented in this position.

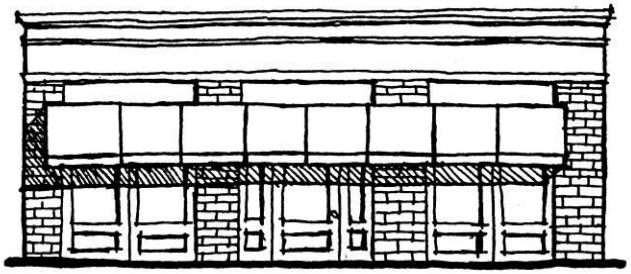
3. Entries should be designed to be inviting to the pedestrian with the use of colorful awnings, decorative paving, and/or landscape plantings

Where windows and entries are recessed, awnings should cover individual openings (as shown on the left) and not span the entire façade (as shown on the right). See guideline IV.D.2.D.1.

D. AWNINGS/CANOPIES

Awnings/canopies are both aesthetic and functional. They can bring visual interest and articulation to a building that is oriented to the pedestrian while providing shade and temporary shelter from various weather elements. The following design guidelines for awnings apply:

Encouraged



Discouraged

1. Awnings intended to accent particular window or door openings should be shaped to match the size and shape of the particular opening (e.g., an arched transom window or doorway should have a rounded awning, a rectangular opening should have a rectangular awning).

2. Awnings should not be the predominate feature of the façade. Where windows and entries are recessed individually, awnings should only cover the opening and not span across to adjacent openings on the same façade. Care should be taken so that awnings do not obstruct the view of adjacent businesses.

3. Signs on awnings should be located on the flap (valance) or the end panels of an angled, curved or box awning.

4. Awnings shall be opaque and made of canvas, matte finish vinyl, or other acceptable fabrics. Awning color should complement the primary or accent color of the building.

5. Awnings should not be used on building façades with no pedestrian or window screening function.

6. Awnings should be used to protect widows from exterior elements instead of drawing attention to a building.

Awnings should not be the predominate feature of the façade. See guideline IV.D.2.D.2.

E. Architectural Details

Architectural details include both functional and decorative building elements that can add great visual interest to a building design. Architectural details include cornice moldings, decorative brackets, ornate brickwork, paneling or molding surrounding recessed windows and doors, and recessed wood paneling and wood-paneled kickplates. The following guidelines for architectural details apply:

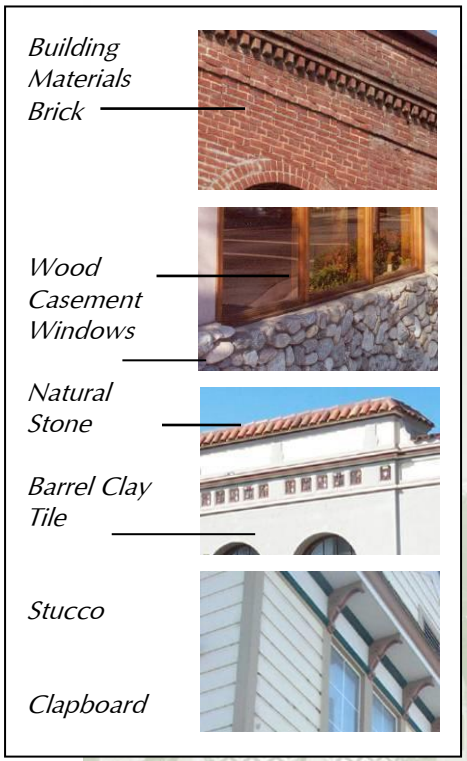
1. Architectural features appropriate to the primary structure's architectural style add visual interest to a structure and should be incorporated into the project design.

2. The preservation of architectural features on historic structures is strongly encouraged.

Architectural decorative details can add visual interest to a building feature. See guideline IV.D.2.E.1.

3. For new construction not located near or adjacent to a historic structure, the building design may incorporate contemporary and/or simplified interpretations of the architectural features noted above. These contemporary and/or simplified interpretations must keep in scale and character with the prevalent architectural elements.

F. BUILDING MATERIALS



Diversity in exterior building materials, color, and finishes, reflective of architectural style and good design, provide visual interest to what would otherwise be a wood- or metal-framed structure. However, the range in which these elements are utilized should be limited in order to promote a sense of visual continuity throughout the City. The following guidelines for building materials, color, and finishes apply:

1. Use of high quality materials on exposed exterior surfaces such as brick, metal, stone, terra cotta, wood, tile and stucco is strongly encouraged.

2. Innovative or "green" materials are encouraged provided they appear high-quality and similar in texture, finish and dimension to traditional architecture.

3. Building colors should evoke a sense of richness and liveliness to complement and support overall character.

4. Simple, matte finishes are preferred. Highly reflective building materials and mirrored glass are inappropriate. Polished stone or ceramic tile, for example should be avoided or limited to accent elements.

G. OUTDOOR STORAGE AND SERVICE AREAS

1. All storage, outdoor storage and service areas, refuse collection, and mechanical equipment shall be enclosed or completely screened from view of public rights-of-way and any residential units on- or off-site with a combination of building features, decorative walls, and landscaping

consistent with the architectural style and design of the building. In addition, rooftop equipment shall be screened from view or integrated into the building design to minimize unsightly views.

2. The use of landscaping, such as tall shrubs and clinging vines to aid in privacy screening and as a buffer from commercial development, is strongly encouraged.

3. Specific Guidelines for Mixed Use Development

A. Scale and Mass

1. The scale and mass of a new development should be consistent with neighboring developments and not overwhelm them with disproportionate size or a design that is out of character.

2. At residential edges, buildings should maintain low profiles to provide a transition between urban and residential areas. Increasingly step back taller elements of the building from adjacent single-family residences.

B. Building Articulation and Façade Treatment

1. Building articulation and detailing shall be used to create an interesting and individual design, diminish the massing of large structures, and be compatible with the scale of surrounding development.
   a. Large monotonous façades, long straight-line building fronts, plain box shapes, and barren exterior treatment are strongly discouraged.
   b. All building elevations visible from a public way should be highly articulated with building elements and architectural details that incorporate the chosen design theme in a consistent manner.

2. Building form should be used to emphasize individual units within a building, larger units and/or anchor stores within retail projects, and foyers, lobbies, and reception areas within non-retail commercial projects. Use building form and articulation to emphasize public entrances and de-emphasize service areas, and to define and shelter pedestrian walks and exterior spaces.

The setback of the second story avoids a monotonous façade. See guideline IV.D.3.B.1.

3. Commercial façades should be modulated at least every 50 feet with changes in building mass or façade treatment. Articulate façades to show this separation with projected entrance windows, roof form or other architectural features.

4. Building façades shall be designed to give individual identity to each vertical module of residential units.
   a. Techniques such as providing a deep notch (in plan) between the modules are encouraged.
   b. Architectural elements between units should be varied with window color, roof shape, window shape, stoop detail, and railing type.
   c. Porches and balconies are encouraged.
   d. Color or materials of each individual module should be varied within a harmonious palette of colors, finishes, and materials.

C. Architectural Style and Details

1. While there are no mandated architectural styles required for each project, choose an identifiable architectural theme, utilizing high quality design and materials.
   a. High quality, innovative and imaginative architecture is encouraged.
   b. New buildings or building complexes should be stylistically consistent.
   c. Architectural style, materials, colors and forms should all work together to express a single theme.

2. Each new building, addition or remodel should be stylistically consistent with the context of building elements from the surrounding area.
   a. Historic detailing on otherwise contemporary style buildings is strongly discouraged.
   b. For example, do not use oversized (too large or out of scale) architectural details such as crown moldings or cornices, columns, pediments, window and doorway moldings, etc. in an attempt to make a contemporary building reflect a historic architectural style.

High quality architecture can create a highly stylized building. See guideline IV.D.3.C.1.

D. Building Materials, Finishes, Textures, and Colors

1. A building and its elements should be unified with textures, colors and materials. Materials should be consistently applied and should be chosen to work harmoniously with adjacent materials. Piecemeal embellishment and frequent changes in materials should be avoided.

2. Buildings shall be treated as a whole and finished appropriately on all sides to provide continuity.
   a. Materials tend to appear substantial and integral to the structure when material changes occur at changes in plane.
   b. Material changes not accompanied by changes in plane appear "tacked-on" and are strongly discouraged.

The color scheme and elements of this building create a unified theme. See guideline IV.D.3.D.1.

3. For most architectural styles, the number of colors on the exterior shall be limited to a maximum of three, with an additional contrasting color for accent.
   a. In general, use lighter colors for the main body, with darker shades for trim and accent.
   b. The larger and simpler the building design, the more subtle the color should be to reduce the massiveness of the large wall planes.

Lighting fixtures complement the architectural design of the building. See guideline IV.D.4.1.

4. Choose colors that accentuate the architectural details of the building and that are consistent with the architectural style. Colors for graphics, such as signs, should be related to the colors used on the building.

4. LIGHTING

Exterior and accessory building lighting should provide adequate illumination that ensures pedestrian safety while being unobtrusive to adjacent buildings. Lighting should be designed with fixtures that provide visual interest but are appropriate to the architectural context of the primary structure. The following guidelines for exterior building lighting apply:

1. Lighting fixtures should compliment and be compatible with the building's design and architectural style. Fixtures shall be appropriately sized and in scale with the building façade.

2. Exterior building lighting should be used to accentuate the building design and highlight architectural details and features integral to the building design.

3. All outdoor lighting shall be designed to not blink, flash, oscillate, or be of unusually high intensity or brightness, while also providing a sufficient level of illumination for access and security purposes.

4. Building entrances and street numbers should be illuminated to be visible from the street.

5. Landscaping

The primary objective of these landscape guidelines is to create a landscape aesthetic that is inviting to the pedestrian. In the interest of improving overall quality of life and encouraging pedestrian activity, all properties are encouraged to seek means of including trees and plants in the streetscape, where space and safety considerations will allow. The following landscape guidelines apply:

a. Driveways, small plazas, courtyards, outdoor seating areas, upper story decks and balconies, and pedestrian corridors should be landscaped as extensively as possible. Accent planting beds and color pots with flowering plants are encouraged. Canopy trees and landscape structures should be used in these outdoor public areas to create "outdoor rooms" and to define spaces. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

b. Small window box type planting beds at entries to buildings are appropriate to the historic context and are encouraged. In addition to planter boxes, ground and hanging pots with colorful accent planting should be used to accent entries and add color and visual interest to buildings.

c. When new commercial development is within or adjacent to a city designed historic district, the landscape design and selected plants should reflect the surrounding area's historic character. Refer to Title 20, Cultural Resources, of the Municipal Code, the Cultural Heritage Board's Design Guidelines, and the district-specific guidelines.

d. The proper placement of evergreen and deciduous trees can provide a mix of shade during the warmer months and light or warmth during the cooler months of the year. Evergreen trees and shrubs should be used whenever a landscape screen or buffer is required.

e. Landscaping should be used to soften the impact of large expanses of blank wall or fencing. These areas should be screened with upright shrubs and clinging or trellised vines. Trellises should be constructed of substantial, durable materials. Regionally appropriate plantings (e.g., ornamental and agricultural plant materials) are encouraged.

f. Hardscape amenities, such as fountains, benches, bike racks, seating areas, and trellises, not only should be included but also be consistent in design and scale with the architecture and landscaping.

g. Consider using depressed landscape planter areas for the additional function of a creative drainage solution by providing openings in the concrete curb to allow for drainage and infiltration opportunities. Refer to the Green Design Guidelines for additional site design considerations and information.

h. Careful water budgeting calculations shall be performed to guarantee the estimated water use for the proposed landscape does not exceed the maximum allowable water use, as directed by the Zoning Code, Chapter 19.570.

1. Landscaping should incorporate the use of climate appropriate, water efficient plants to reduce water demand.
2. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
3. Turf areas should be thoughtfully designed in response to functional needs, and shall be in compliance with the water budget according to the Zoning Code, Title 19.570, Water Efficient Landscaping and Irrigation.
4. Non-living ground cover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.

i. Through the application of an efficient and well-designed irrigation system, water use can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

6. Signs

This section includes specific guidelines for sign type, design, number, scale and location, and illumination of signs. Refer to Appendix A: Citywide Sign Design Guidelines and the Zoning Ordinance for further design standards for signs.

a. The following preferred building-attached signs include:

   i. Wall sign - Wall signs are flush-mounted signs attached to the building façade, including sign panels, individual letters, and painted signs.

   ii. Blade/Projecting (Perpendicular) sign - Projecting signs are generally mounted on support brackets that extend at a 90-degree angle from the building façade so that the sign face is visible from two sides.

   iii. Awning/Canopy sign - Canopy signs are usually applied to an awning valance or canopy fascia for permanent business identification.

   iv. Under canopy sign - Under canopy signs hang from the underside of a canopy or awning over the sidewalk or building entrance.

b. The following preferred freestanding signs include:

   i. Monument signs - Monument signs are generally constructed upon a solid base or pedestal.

   ii. Readerboard signs - Constructed in the same manner as a monument sign, readerboard signs have changeable sign copy.

   iii. Portable sign – Portable signs, where allowable, are freestanding signs that are not permanently affixed to the ground. These signs are used for temporary business identification during open hours. This type of sign is commonly referred to as an A-frame or sandwich board sign.

Wall Signs

Blade/Projecting (Perpendicular) Sign

See Appendix A: Citywide Sign Design Guidelines for more design criteria.

c. Signs shall be architecturally compatible with a building's architectural style with regards to size, color, materials, and illumination.

d. Building-attached signs should complement, rather than compete with, the architectural features and overall façade composition of the building. Such signs should be proportional to the building so as not to dominate the appearance. Lettering style should be appropriate to the building design.

e. Signs should be located on parapets, towers, turrets, recessed wall areas, and/or other architectural features specifically designed for them.

f. Awning and blade/projecting signs are encouraged for first floor façades of buildings located in areas designated commercial and mixed use.

g. Signs should be creative and emphasize artistic expression.

h. Signs shall be illuminated, internally and/or externally, from a concealed light source.

i. Freestanding signs should be designed to complement the architectural style of the primary building(s) and should be small in scale and incorporated into the landscape plan of the site, located in landscaped areas.

j. Portable signs, where allowable, should be located on-site near the building entrance and shall not obstruct pedestrian walkways. Portable signs shall not be located in the public right-of-way.

Awning/Canopy Sign

7. Walls and Fencing

a. Walls and fencing will serve a major function in the commercial and mixed use landscape. Use walls and fencing to screen automobiles, loading and storage areas, and utility structures. However, utilize walls and fencing only when specific screening or security purposes are required. Keep walls and fencing as low as possible while performing their screening and security functions.

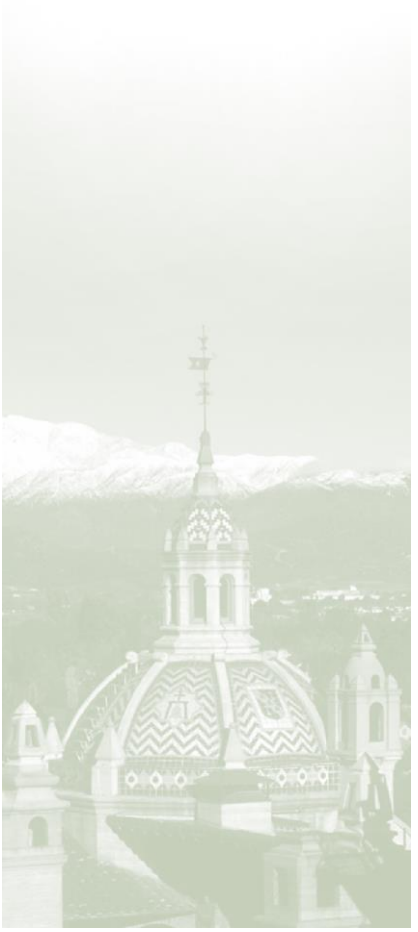
b. Where walls are used at property frontages, or screenwalls are used to conceal storage and equipment areas, they should be designed to blend with the site's architecture.
   i. Architecturally treat both sides of all perimeter walls.
   ii. Use landscaping in combination with such walls whenever possible.

c. When security fencing is required, provide a combination of solid pillars or short solid wall segments and wrought iron grill work. Use landscaping such as clinging vines and shrubs to soften the appearance of fencing.

d. Long expanses of fence or wall surfaces should be offset and architecturally designed to prevent monotony. Landscape pockets should be provided.

e. Permitted materials for walls shall be decorative masonry split face block, brick, natural stone, precast concrete panels, stuccoed walls or other unique wall materials or finishes that integrate well with on-site buildings, as determined on a case by case basis. Slump stone and precision block are not considered decorative materials and shall not be permitted as acceptable wall materials. All walls must feature matching cap materials.

f. Under the Design Guidelines and Zoning Code, wall height is limited primarily for aesthetic reasons. Limitations on maximum wall heights could reduce the ability to maintain noise levels in some locations to levels required by Title 24 of the California Code of Regulations and the Title 7 of the Riverside Municipal Code. In the cases where mitigation measure MM Noise 1 of the City's General Plan 2025 EIR is implemented, the City may consider increasing wall height as one measure to reduce noise to acceptable levels. In such high level noise situations, combinations of setbacks, site design, berms, and solid walls, including walls higher than normally permitted by Code or these Design Guidelines, may be used to achieve noise standards.



g. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when these residential developments are in the vicinity of planned trails outlined in the General Plan.

8. SCREENING

a. Screen outdoor storage areas as set forth in the Zoning Code.

   i. Where screening is required, combine elements, including solid masonry walls, berms, and landscaping.

   ii. Screen all equipment, whether on the roof, side of building, or on the ground.
   - Employ a method of screening architecturally integrated in terms of materials, color, shape, and size.
   - The screening design shall blend with the building design.
   - Where individual equipment is provided, a continuous screen is desirable.

   iii. The need to screen rooftop equipment, as required by the Zoning Code, should be taken into consideration during the initial design phase for the structure.

V. Industrial Design Guidelines

The following guidelines apply to development of industrial land uses. These uses include light industrial establishments, business parks, and heavy manufacturing and industrial establishments. These guidelines address site design, parking and loading, architecture, landscaping, walls and fences, screening, lighting, and signs.

A. Site Design

Elements of quality industrial site design include the following:

- Controlled site access
- Service areas located at the sides and rear of buildings
- Convenient access, visitor parking and on-site circulation
- Screening of outdoor storage, work areas, and equipment
- Emphasis on the main building entry and landscaping
- Landscaped open space

Attractive landscaping and open space areas are provided.

Architectural elements such as arched entry and cornice moldings reduce appearance of massive industrial building.

V. Industrial Design Guidelines

Guidelines for site design include:

1. A variety of building and parking setbacks should be provided to avoid long monotonous building façades and to create diversity.

Discouraged

Encouraged

2. A minimum 5-foot landscape strip between parking areas and any portion of the structure shall be provided. This would not apply to those portions of the structure that require vehicular access such as loading areas.

3. Site access and internal circulation should be designed in a straightforward manner, which emphasizes safety and efficiency.

   a. The project's circulation system should be designed to reduce conflicts between vehicular and pedestrian traffic, combine circulation and access areas where possible, provide adequate maneuvering and stacking areas, and consider emergency vehicle access.

   b. Truck and auto traffic should be separated to the degree possible.

   c. Separate circulation routes and parking areas.

Encouraged



d. Vehicles should not be required to enter the public street in order to move from one area to another on the same site.

4. Entry treatments should be reflective and proportional to the size of the project.

5. Buildings within a single development should be connected with aesthetic and functional open space and landscape areas.

6. Where industrial uses are adjacent to non-industrial uses, appropriate buffering techniques such as setbacks, screening and landscaping shall be provided as set forth in the Zoning Code.

Encouraged



1. PARKING AND LOADING

a. The industrial site should be a self-contained development capable of accommodating its own parking needs. The use of the public street for parking and staging of trucks is not allowed.

b. Entrances and exits to and from parking and loading facilities should be clearly marked with appropriate directional signage where multiple access points are provided.

c. Parking lots adjacent to and visible from public streets should be adequately screened by using rolling earth berms, low screen walls, changes in elevation, landscaping or combinations thereof whenever possible.

d. In the Business Manufacturing Park Zone, parking should be located to the side or rear of buildings.

e. To alleviate the unsightly appearance of loading facilities for industrial uses, these areas should not be located at the front of buildings where it is difficult to adequately screen them from view. Such facilities are more appropriate at the rear of the site where special screening may not be required.

f. Backing from the public street onto the site for loading into front-end docks causes unsafe truck maneuvering and shall not be utilized.

g. Site circulation should be designed so that auto movement is separate from truck movement and loading to the degree possible.

h. Sufficient stacking and back-up area for trucks on-site should be provided and separated from parking areas.

2. LANDSCAPING

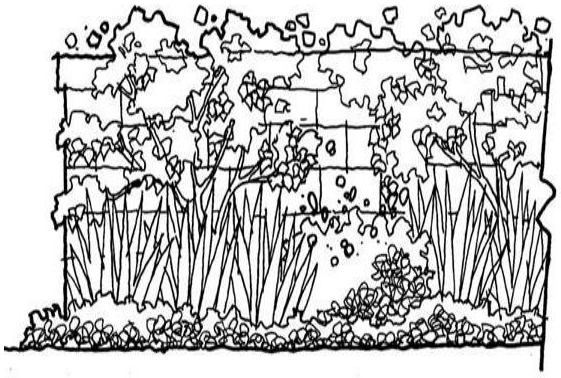
a. For industrial uses, landscaping should be used to define areas by helping to focus on entrances to buildings, parking lots, loading areas, and defining the boundaries of various land uses. Landscaping shall also provide adequate buffering between neighboring properties, and provide screening for outdoor storage, loading, and equipment areas per Zoning Code requirements.

b. Landscaping should be in scale with adjacent buildings and be of appropriate size at maturity to accomplish its intended goals.

c. Use of vines on walls is encouraged in industrial areas because such walls often tend to be large and blank.

d. Landscaping around the entire base of buildings (except loading and service areas is recommended to soften the edge between the parking lot and the structure. This should be accented at entrances to provide focus.

e. Trees should be distributed throughout the parking lot within center row planters and diamond planters, and not simply at the ends of parking aisles.



Blank wall-surface area is appropriately screened with clinging vines and additional ground landscaping.

See the City's Water Efficient Landscaping and Irrigation Chapter 19.570 of the Zoning Code for water-efficient planting

f. Landscaping should be protected from vehicular and pedestrian encroachment by raised planting surfaces, depressed walks, or the use of concrete curbs. Concrete mowstrips are required per development regulations between turf and shrub areas.

g. Consider using depressed landscape planter areas for the additional function of a creative drainage solution, by providing openings in the concrete curb to allow for drainage and infiltration opportunities throughout the site.

h. Landscaping should make up of a variety of plant materials (minimum of three types of trees, three types of shrubs, and two types of groundcover) that are climate appropriate and water efficient. A mix of deciduous and evergreen trees should be used. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

i. Landscaping should be used to soften views toward parking lots, loading areas, trash enclosures, storage areas, and utility areas. All backflow preventers, gas meters, transformers, air conditioning condensers, above ground pipes and valves or any other equipment shall be screened with appropriate planting.

j. The proper placement of evergreen and deciduous trees can provide a balance of shade during the warmer months and light or warmth during the cooler months of the year.

k. Careful water budgeting calculations shall be performed to guarantee the estimated water use for the proposed landscape does not exceed the maximum allowable water use, as directed by the Zoning Code, Chapter 19.570.

   i. Landscape should incorporate the use of water efficient, climate appropriate plants to reduce water demand.
   ii. Landscape plants should be grouped according to their irrigation needs to create hydrozones.
   iii. Turf areas should be thoughtfully designed in response to functional needs and shall be in compliance with the water budget according to the Zoning Code, Title 19.570, Water Efficient Landscaping and Irrigation.

iv. Non-living groundcover material, such as mulch and decomposed granite, can be used creatively in the landscape to reduce water demand.

l. Through the application of an efficient and well-designed irrigation system, water use can be greatly reduced. For possible incentives and rebates, refer to the City of Riverside Public Utilities and Western Municipal Water District websites.

m. Graded slopes shall be provided with sufficient landscaping and irrigation coverage for erosion control and to soften the view to cut and fill slopes from surrounding public views.

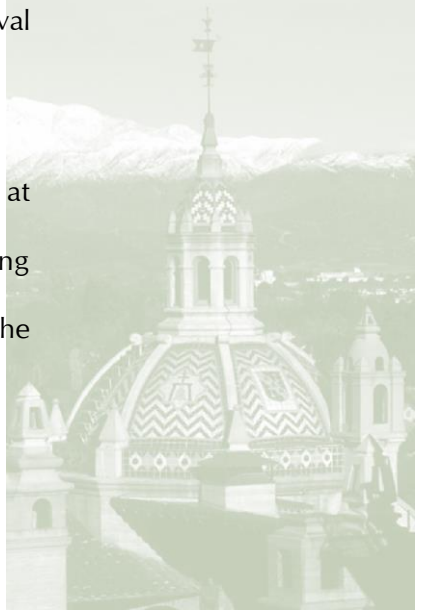
n. Landscaping shall be used to screen parking lots from street view in compliance with the Zoning Code (Section 19.580.090 (B)) through the use of:

i. a three-foot high landscaped berm;
ii. a three-foot high shrub row, with all shrubbery to be located towards the rear of the landscaped setback, or:
iii. a combination of the above two items, or an alternative buffer subject to written approval by the Community & Economic Development Director.

p. Canopy trees shall be provided to shade parking areas as follows:

i. Tree Well: One tree shall be provided within each tree well centered between the stalls at every 4-5 spaces.
ii. End Row Planters: One tree shall be provided within each end planter, next to each parking stall. Two trees shall be provided at the end of each double row of stalls.
iii. Finger Planters: One tree shall be provided within each finger planter, centered with the adjacent parking stall.
iv. Strip Planters: One tree shall be provided in line with the edge of the parking stall.

q. Sod, not seed, shall be used for lawn areas.



Encouraged. See guideline V.A.3.b.ii. and d.

Discouraged. See guideline V.A.3.e.

3. WALLS AND FENCING

a. Walls and fencing will serve a major function in the industrial landscape. Use walls to screen automobiles, loading and storage areas, and utility structures. However, utilize walls only when specific screening or security purposes are required. Walls and fencing should be kept as low as possible while performing their screening and security functions.

b. Where walls are used at property frontages, or screen walls are used to conceal storage, loading and equipment areas, they should be designed to blend with the site's architecture.
   i. Architecturally treat both sides of all perimeter walls.
   ii. Use landscaping in combination with such walls whenever possible.

c. When security fencing is required, a combination of solid pillars or short solid wall segments and wrought iron grillwork should be used. Landscaping such as clinging vines and shrubs should be used to soften the appearance of fencing.

d. Long expanses of fence or wall surfaces should be offset and architecturally designed to prevent monotony. Landscape pockets should be provided.

e. The use of chain link fencing along any street front shall be prohibited.

f. Permitted materials for walls shall be decorative masonry split face block, brick, natural stone, precast concrete panels, stuccoed walls or other unique wall materials or finishes that integrate well with on-site buildings, as determined on a case by case basis. Slump stone and precision block are not considered decorative materials and shall not be permitted as acceptable wall materials. All walls must feature matching cap materials.

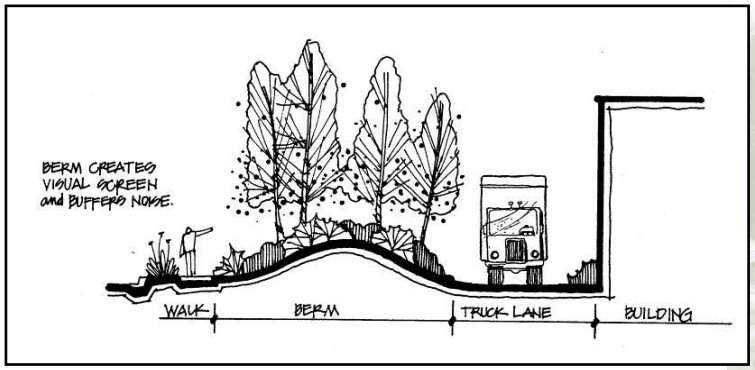
g. Under the Design Guidelines and Zoning Code, wall height is limited primarily for aesthetic reasons. Limitations on maximum wall heights could reduce the ability to maintain noise levels in some locations to levels required by Title 24 of the California Code of Regulations and the Title 7 of the Riverside Municipal Code. In the cases where mitigation measure MM Noise 1 of the City's General Plan 2025 EIR is implemented, the City may consider increasing wall height as one measure to reduce noise to acceptable levels. In such high level noise situations, combinations of setbacks, site design, berms, and solid walls, including walls higher than normally permitted by Code or these Design Guidelines, may be used to achieve noise standards.

h. Boundary/perimeter fencing on the property should be located in such a way as to provide for trail development, maintenance, and public usage. This requirement would be for all trails shown in the General Plan and for the connection of private trails for the use of residents, when industrial development is in the vicinity of planned trails outlined in the General Plan.

4. SCREENING

a. Outdoor storage areas shall be screened as set forth in the Zoning Code. Backflow preventers, gas meters, transformers, air conditioning condensers, above ground pipes and valves or any other equipment shall be screened.

b. Where re-screening is required, a combination of elements, including solid masonry walls, berms, and landscaping is encouraged. Chain link fencing with wood or metal slating and climbing vines is an acceptable screening only for areas of a lot not visible from a public street.



c. All equipment whether on the roof, side of building, or on the ground shall be screened.
   i. A method of screening architecturally integrated in terms of materials, color, shape, and size in encouraged.
   ii. The screening design shall blend with the building design.
   iii. Where individual equipment is provided, a continuous screen is encouraged.

d. The need to screen rooftop equipment, as required by the Zoning Code, should be taken into consideration during the initial design phase for the structure.

B. ARCHITECTURAL DESIGN

More modern architectural design of industrial buildings emphasizes design techniques to avoid unattractive or monotonous façades. Some design techniques which are utilized to provide attractive, interesting, industrial buildings are as follows:

1. A variety in structure forms should be used to create visual character and interest.

2. Long, unarticulated façades should be avoided. Façades with varied front setbacks are strongly encouraged. Wall planes should not run in one continuous direction for more than 50 feet without an offset.

Façade has been articulated with archway and decorative cornice moldings.

Treatment of this industrial building's well-articulated façade is encouraged.

This industrial building's blank, unarticulated façade is undesirable and strongly discouraged.

3. Blank front and sidewall elevations on street frontages should be avoided.

4. Entries to industrial structures should portray a high-quality appearance while being architecturally tied into the overall mass and building composition.

5. Windows and doors are key elements of any structure's form.
   a. Windows should be fenestrated in scale of the elevation on which they appear.
   b. Windows and doors should establish character by their rhythm and variety. Recessed openings help to provide depth and contrast on elevation planes and are strongly encouraged.

6. Sensitive alteration of colors, materials, and textures can produce diversity, enhance architectural forms, and is encouraged.

7. The staggering of planes along an exterior wall elevation creates pockets of light and shadow, providing relief from monotonous, uninterrupted expanses of wall and is encouraged.

8. Design elements, which are discouraged and should be avoided include:
   i. Highly reflective surfaces
   ii. Large, blank, unarticulated wall surfaces
   iii. Exposed, untreated precision block walls
   iv. Chain link fence, barbed wire
   v. "Stuck on" mansard roofs on small portion of the roofline
   vi. Unarticulated building façades
   vii. Materials requiring high maintenance such as stained wood, shingles or metal siding

9. Design elements, which are encouraged, include:
   i. Articulation of building planes
   ii. Cornice moldings
   iii. Pop-outs

10. Berming in conjunction with landscaping should be used at the building edge to reduce structure mass and height along façades.

11. Rolling shutter doors located on the rear façade of the building are the preferred method for providing large loading doors, while keeping a clean, uncluttered appearance from the exterior.

12. The roof design should be considered as a component of the overall architectural design theme.

C. SIGNS

1. Every project should be designed with a precise concept for adequate signage.
   a. Provisions for sign placement, sign scale in relationship with building, and the readability of the sign should be addressed while developing the overall signing concept.
   b. All signs should be highly compatible with the structure and site design relative to color, material, and placement.

2. Monument signs are the preferred alternative for business identification. Where several tenants occupy the same site, individual wall-mounted signs are appropriate in combination with a monument sign identifying the development and address.

3. The use of backlit individually cut letter signs is strongly encouraged.

4. The industrial site should be appropriately signed to give directions to loading and receiving areas, visitor parking, and other special areas.

See Appendix A: Citywide Sign Design Guidelines for more design criteria for signs.

D. LIGHTING

1. Lighting to provide illumination for the security and safety of onsite areas such as parking, loading, shipping, and receiving, pathways, and working areas should be used.

2. Light fixtures and their structural support should be architecturally compatible with main buildings on site. Integrate illuminators within the architectural design of the building(s).

3. As a security device, lighting should be adequate but not overly bright. All building entrances should be well lighted.

4. All lighting should be shielded to confine light spread within the site boundaries.

VI. Public Facilities Design Guidelines

The following guidelines apply to the design of Public Facilities, as well as public open spaces such as parks, plazas, and courtyards. Specific guidelines addressing site design, parking and loading, architectural design, landscape design, walls and fences, lighting and signs within the Residential, Commercial, and Industrial Sections, and guidelines within Appendices of the Citywide Design and Sign Guidelines should be applied according to the nature and scope of each Public Facilities development project.

General design guidelines are as follows:

1. Create beautiful public places and spaces that promote civic pride. Utilize historic, cultural, and architectural themes as appropriate in the design of these types of buildings to provide a connection to Riverside's rich culture.

2. Site public facilities such as community centers, parks, libraries, performing art centers, etc. with high pedestrian accessibility and visual prominence from the street. With newly developed areas of the City, these facilities should be sited in close proximity to residential and/or mixed-use areas.

3. Incorporate open space areas such as plazas, courtyards, and paseos.

    a. Buildings on the site should be clustered to create pedestrian open space areas, plazas, and courtyards.

    b. Water features, heavy use of landscaping, public art, sitting areas and benches shaded by trees, special paving treatments, and attractive lighting and signage should be included into the design of these spaces.

    c. Provide for trail development and maintenance or a connection to trails as shown in the General Plan when these facilities are in the vicinity of planned trails.

Attractive street lighting is encouraged.

Formal landscaping accentuates importance of public facility and readily identifies pedestrian ingress/egress into the facility. Refer to Appendix C, Plant Lists for climate appropriate, water efficient plant options.

A. OPEN SPACE, PARKS, PLAZAS, AND COURTYARDS

Park entry at street corner. See guideline VI.A.1.

See guideline VI.A.2.-4.

Open space areas, parks, plazas, and courtyards are fundamental features of a livable and enjoyable city. Parks and plazas can reinforce retail and residential areas by creating suitable gathering spaces for informational and recreational purposes. These spaces provide points to draw pedestrians in the walkable city. Guidelines for parks, plazas, courtyards, and other open space areas are as follows.

1. Parks and plazas should be placed adjacent to public streets, residential areas, and retail uses for high visibility and accessibility.

2. Parks and plazas should be designed for both active and passive uses. They should reflect and reinforce the character of the surrounding area and accommodate anticipated intensity of use.

3. Parks and plazas should provide an adequate balance of shade and sunny areas for year-long use.

4. Parks and plazas shall provide necessary amenities such as drinking fountains, benches, and trash receptacles.

5. Perimeter fencing around open space areas, parks, and plazas should be avoided.

6. Creative lighting sources should be included in the design of parks and plazas

7. Landscaping within and adjacent to natural open space areas should reflect the natural character of these areas with the use of indigenous planting materials. Avoid the use of any known invasive plants. Refer to the California Invasive Plant Council's invasive plant lists and the Multiple Species Habitat Conservation Plan (MSHCP) for additional guidance for projects that involve areas of natural open spaces.

8. During the early stages of site design, consider incorporating the principles of CPTED, Crime Prevention Through Environmental Design, to ensure the most responsible site layout.

See guideline VI.B.4.

B. Citywide Street Improvements

The following general guidelines apply to public improvements intended to enhance overall neighborhood quality. Area-wide improvements and recommended street treatments to support safe, visually attractive access to pedestrians and residents are as follows.

1. Entry markers are encouraged to be located within the public right-of-way at major intersections, specifically at entrances to neighborhoods and business districts. Signage should be in the form of individual channeled letters, engraved into the marker. Landscaping and up lighting should be incorporated.

2. Street amenities including street furniture, trash receptacles, and lighting are encouraged. The design of these amenities is encouraged to include Riverside's unique local history and culture.

3. Street lighting such as street lamps reflects a human scale and should be incorporated as street improvements occur.

See guideline VI.B.4.

Decorative tree well.

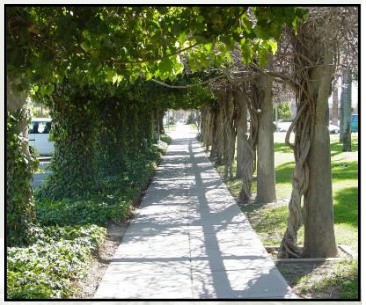
4. Landscaping in the form of street trees, planters, and pots in the public parkway is encouraged. The use of protective and decorative tree wells is encouraged for street trees.

5. Particularly for new residential developments, landscaped parkways with street trees within the public right-of-way shall be required to be located between the curb and the sidewalk.

6. Decorative accent paving material is encouraged for major intersections and pedestrian crosswalks within the City.

7. Visual focal points such as fountains and public art are encouraged in areas deemed appropriate. Landscaping and lighting should be incorporated to frame and highlight the artwork.

Landscaped parkways provide safer sidewalks and a more attractive street scenes.



Landscape medians, parkways, and decorative pavement that denote pedestrian space beautifies public space and assists in defining streetscape and pedestrian movement.

Public art well placed within an open public space can create strong community identity. Lighting and landscaping can be incorporated to amplify its beauty and strength.

VII. GLOSSARY

Addition Any increase to the gross floor area of a structure.

Arcade An establishment containing four or more electronic amusement devices, such as video games, pinball machines, internet computer cafes and the like. This definition shall not apply to restaurants or recreational premises, such as bowling alleys or skating rinks, where an arcade is clearly incidental to the primary use and providing less than 25% of its gross revenue.

Architectural Element A design element incorporated into a freestanding sign for the purpose of making the sign directly reflect the architecture of the building(s) which house(s) the business(s) it identifies. Architectural elements, not including any message, may increase the maximum allowable size of a sign by up to twenty-five percent, subject to Design Review staff or Cultural Heritage Board review and approval.

Area of a Sign The area within a maximum of two elements, with each element comprised of a maximum four continuous straight lines enclosing the entire perimeter of the sign including all text, emblems, arrows, ornaments or other sign media. When two elements are used, they must share at least one point in common. For monument or pole signs, when two identical sign faces are placed back to back on the same structure, the sign area shall be computed by the measurement of one sign face. For signs with more than two sign faces, the sign area shall be computed by including all sign faces.

Articulation Clear and distinct separation between design elements such as materials, walls, and architectural details.

Awning A structure projecting from the façade of a building for the purpose of ornamentation and/or protection for pedestrians. Awnings are located primarily on the front façade over the primary entrance and/or storefront windows.

VII. GLOSSARY

Blade Sign A double-sided sign oriented perpendicular to the building wall on which it is mounted. Also referred to as a Projecting Sign.

Bracket A supporting member for a projecting element or shelf, sometimes in the shape of an inverted L and sometimes a solid piece or a triangular truss.

Buffer A strip of land and/or wall established to physically and visually separate and establish a transition between one type of land use from another land use that has the potential of being incompatible. Required buffer areas are landscaped and kept free of structural improvements.

Building Frontage For the purpose of calculating sign areas, "building frontage" means the linear measurement of exterior walls enclosing interior spaces that are oriented to and most nearly parallel to public streets, public alleys, parking lots, malls or freeways.

Building Sign A sign with a single face of copy, painted or otherwise marked on or attached to the face of a building wall, mansard roof or canopy fascia. Signs placed on a mansard roof are considered building signs only if such signs do not extend above the top of the main building wall parapet to which the mansard roof is attached.

Building Wall The vertical, exterior surface of a building or structure.

Canopy A fixed overhead shelter used as a roof, which may or may not be attached to a building.

Channel Letter An individual letter made of formed sheet metal, usually with an acrylic face and an internal light source.

Character Special physical features of a structure or area that set it apart from its surroundings and contributes to its individuality.

Compatible	Projects that gives the appearance of existing together without conflict with respect to site design, architectural style, building massing, landscape, and signs.
Commercial Sign	A sign that identifies, advertises or otherwise attracts attention to a product or business.
Consistent	Free from variation or contradiction.
Cornice	A decorative horizontal member or top course that crowns a wall or architectural composition.
Cupola	A decorative structure, ranging in size, on top of a roof or building.
Decorative Block Wall	A masonry wall using a design scheme that utilizes both standard masonry units and ornamental masonry units in a decorative fashion consistent or compatible to the design and/or architectural theme of the primary structure.
Directory Sign	A sign composed of three or more changeable panels where the copy is a fixed element of the background on which it is placed and when viewed together, all panels form or appear to form a single sign entity.
Eave	The lower border of a roof that overhangs the wall.
Exterior	The renovation, restoration or expansion of historic resources, which alters the modification physical appearance of the structure(s) or architectural features thereof, visible from a public right-of-way. This definition does not include the repainting of a structure.
Façade	The exterior face of a building extending from grade to top of the parapet, wall or eave and the entire width of each building elevation.
Fenestration	The arrangement, proportioning and design of windows and doors in a building.

VII. GLOSSARY

Fluorescent Colors The range of colors created through a synthetic pigmentation process in which ultraviolet light is absorbed and emitted at a different range within the color spectrum of the individual colors. The prohibited colors are listed on the fluorescent color chart as contained in Article X, Definitions, of the Zoning Code (Title 19).

Freestanding signs Signs supported permanently upon the ground by poles or braces and not attached to any building, including monument, pole, and portable signs.

Frontage The area on a piece of property that lies adjacent to the street; the area between the street and the main entrance to the building; the front façade of a building where the main entrance to the building is located.

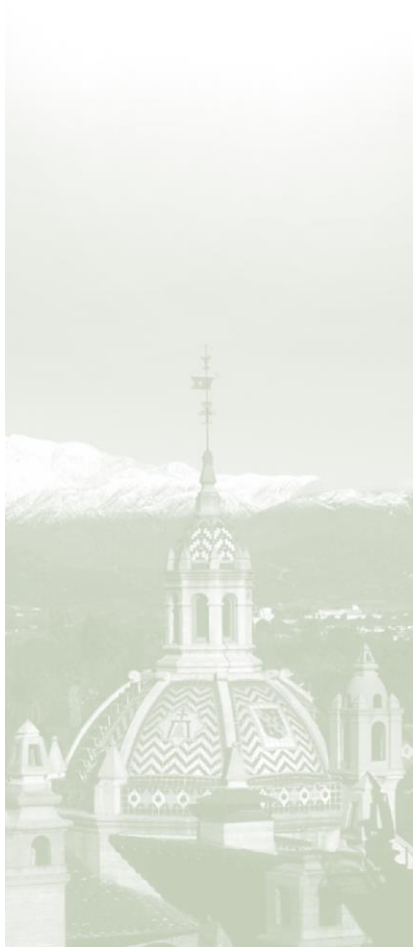
Gable Roof A double sloping roof that creates a gable at each end.

Height of Sign The distance from the average ground level immediately surrounding the base of the sign to the top of its highest element, including any structural or architectural element. Landscape mounding shall not be used to artificially increase the height of a sign.

Hip Roof A roof having four uniformly pitched sides.

Historic Resource The physical links with a city's historic past.

Kickplate A feature that functions to protect the display window by raising the glass area to a safer and easily viewed height. Materials usually include wood panels, marble or ceramic tiles.



Landscape Coverage The area of a lot covered with a pervious surface, listed as a percentage of the net lot area. A pervious surface is a surface that presents an opportunity for precipitation to infiltrate the ground. However, landscape coverage may include containerized plantings located on impervious surfaces.

Letter Area The total square feet of the letters and logos in a sign that can fit within a set number of straight vertical and horizontal lines.

Lighted Sign A sign which is illuminated either directly or indirectly by artificial light.

Live/Work Unit An integrated living unit and working space with an internal connection between the living and working space, occupied and utilized by a single housekeeping unit.

Mansard Roof A sloped, decorative roof element attached to the face of a building wall.

Menu Display A single-sided framed menu attached to the moveable barrier that defines the outdoor dining area in the public right-of-way.

Mixed Use Development A single building containing more than one type of land use or a single development of more than one building and use, where the different types of land uses are in close proximity, planned as a unified complementary whole, and functionally integrated to the use of shared vehicular and pedestrian access and parking areas.

Monument Sign A two-sided sign with an overall height of eight feet or less, standing directly on the ground or on a monument base or where supporting poles or structures, if any, are enclosed by decorative covers. A monument sign must be situated in a planter flanking all sides of the sign base.

VII. GLOSSARY

Mural A commissioned artistic rendering that does not in any way advertise a product, service or business logo or contain copy that includes a business name or logo.

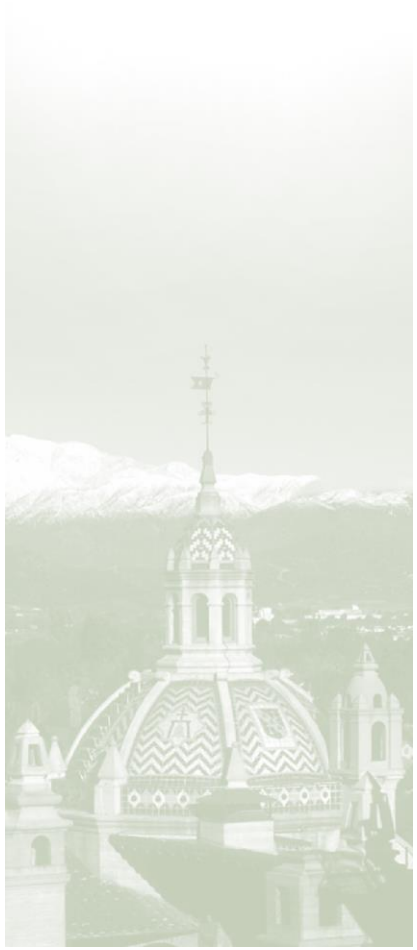
Neon Sign A sign comprised partially or entirely of exposed small diameter tubing, illuminated by neon, argon or other means.

Painted Sign A sign which is painted directly on any wall, window, fence or structure of any kind.

Parapet The part of a wall that rises above the edge of the roof.

Pedestrian Mall A pedestrian mall is established and is described as follows: Main Street between the southerly line of Sixth Street and the northerly line of Tenth Street but excluding from the mall the intersections of Main Street with Mission Inn Avenue (formerly known as Seventh Street), University Avenue (formerly known as Eighth Street), and excluding from the mall Ninth Street. (Ordinance No. 6929)

Pedestrian-oriented Development designed with an emphasis primarily on the street sidewalk and development on pedestrian access to the site and building, rather than on auto access and parking areas. The building is generally placed close to the street and the main entrance is oriented to the street sidewalk. There are generally windows or display cases along building façades which face the street.



Pedestrian/Human Scale The relating of the structures in the built environment to the size of a person.

Plaque Sign A wall sign.

Pole Sign A two-sided sign with an overall height exceeding eight feet and having one or more supports permanently attached directly into or upon the ground.

Portable Sign A sign which is capable of being carried or readily moved from one location to another.

Preservation The act or process of applying measures to sustain the existing form, integrity and materials of a building or structure, and the existing form.

Projection The distance as established by this code by which a sign extends beyond the building wall or the street property line.

Projecting Sign A double-sided sign oriented perpendicular to the building wall on which it is mounted. Also referred to as a Blade Sign.

Proportion The relationship between elements taken as a whole or in comparison to each other. Often expressed as a ratio.

Readerboard Sign A sign having changeable copy used to announce a coming event or attraction or used to convey a commercial or non-commercial message related to the building or use of the property on which the readerboard sign is located.

Roof Sign Any sign supported by or attached to or projecting through the roof of a building or structure, or projecting above the eave line or parapet wall of the building or structure. Roof sign shall not include a sign attached to a mansard roof pursuant to the definitions of building sign and mansard roof or a vertical sign as defined in Section 19.76.140 of the Zoning Code.

VII. GLOSSARY

Scale The measurement of the relationship between objects. Usually expressed in terms of a building or element possessing human or pedestrian proportions. Also refers to the relationship between different architectural elements of a building and their relationship to the building itself.

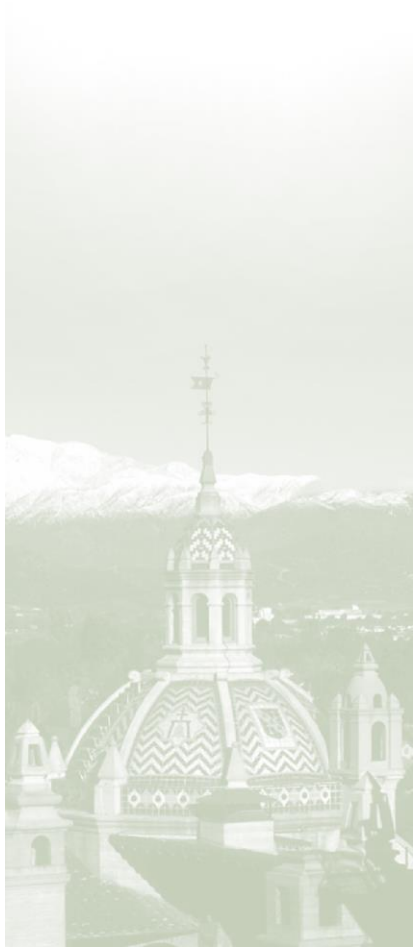
Sign Any medium for visual communication, including but not limited to words, symbols and illustrations, together with all parts, materials, frame and background, which is used or intended to be used to attract attention to identify or advertise an establishment, product, service, activity or location or provide information or an opinion.

Sign Area The area within a maximum of two elements, with each element comprised of a maximum four continuous straight lines enclosing the entire perimeter of the sign including all text, emblems, arrows, ornaments or other sign media. When two elements are used, they must share at least one point in common. For monument or pole signs, when two identical sign faces are placed back to back on the same structure, the sign area shall be computed by the measurement of one sign face. For signs with more than two sign faces, the sign area shall be computed by including all sign faces.

Sign Cabinet A type of sign construction made of a metal container which houses fluorescent tube lights. Frequently these signs have a translucent acrylic sign face.

Sign Face An exterior display surface of a sign including non-structural trim exclusive of the supporting structure.

Sign Program A set of design standards or criteria that governs the signs of a designated lot or site.



Streetscape The visual image is defined by the development along its edges and the physical improvements within the boundaries of the street right-of-way (e.g. parking, lights, landscape, and signs).

Temporary Sign A commercial or non-commercial sign displayed for a period of time not exceeding thirty days or as otherwise provided by the Zoning Code.

Trellis A frame or latticework used as a screen or as a support for climbing plants to create a screen.

Two-sided Sign A freestanding sign where two identical sign faces are placed back to back on the same structure. Any other configuration is considered to be a sign with more than two faces.

Under-Canopy Sign A sign with a single or double face copy hung below a canopy perpendicular to the adjacent building wall of the business being identified.

Window Sign A sign with a single face of copy which is permanently marked on or adhered to a window or which is oriented toward a window and designed to read through a window.

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Riverside
Citywide Design Guidelines
Appendix A: Sign Design Guidelines

Adopted November 2007
Resolution No. 21544
City of Riverside

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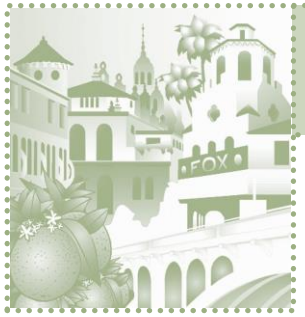
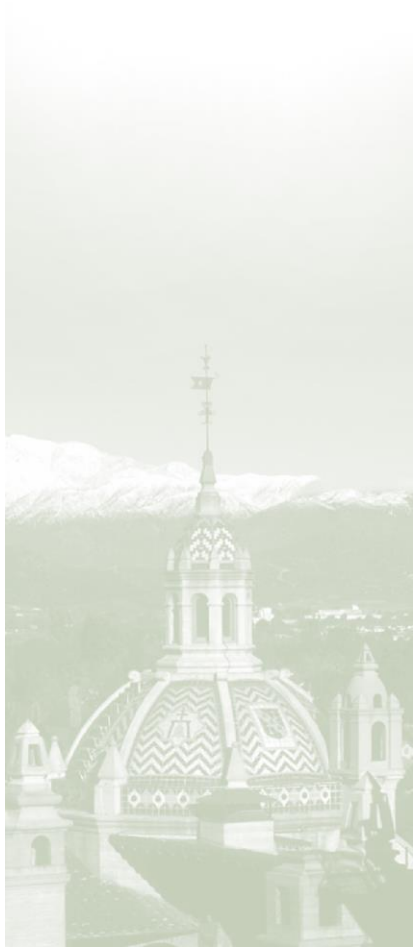


APPENDIX A: TABLE OF CONTENTS



Appendix A: Table of Contents

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APPENDIX A: SIGN DESIGN GUIDELINES

Sign controls preserve and enhance the aesthetic, traffic safety, economic, and environmental values of Riverside's neighborhoods and commercial/industrial areas, while at the same time provide channels of communication to the public. Sign regulations in the City's Zoning Code (Title 19 of the Municipal Code) and these Sign Design Guidelines work together to safeguard and preserve property values and public health and welfare through prohibiting, regulating, and controlling the type, design, location, and maintenance of signs. In addition to the standards found in the Zoning Code, these guidelines are intended to provide good examples of techniques that should be used to meet the City's expectations for quality business signage. The sign applicant should carefully consider each guideline that applies and demonstrate a recognition of the guideline's intent. Where any perceived inconsistency between the Zoning Code and these guidelines is identified, the regulations of the Zoning Code shall govern.

I. PURPOSE

The Sign Design Guidelines are established to accomplish the following:

A. Establish reasonable and improved standards for business identification
B. Ensure signs on façades of buildings reinforce the existing historic and/or architectural character and are integrated into the overall architectural scheme of buildings
C. Promote a quality visual environment by allowing signs that are compatible with their surroundings and which effectively communicate their message
D. Promote economic vitality.
E. Ensure that commercial signs are designed for the purpose of identifying a business in an attractive and functional manner, rather than to serve primarily as general advertising for business
F. Encourage creative and innovative approaches to signage within an established framework
G. Enhance and protect overall property values and the visual environment in the City by discouraging signs which contribute to the visual clutter of the streetscape
H. Assist property owners and business owners in understanding City expectations

II. APPLICABILITY

A. The Sign Design Guidelines will be applied when design review approval or a cultural heritage permit is required and will be administered by City Planning Staff or the Cultural Heritage Board, as applicable.

B. Signs will be reviewed for their consistency with the Guidelines. The Sign Design Guidelines are designed to help ensure quality signs communicate their message clearly.

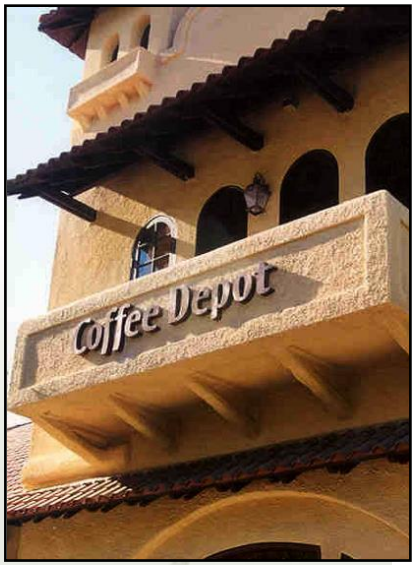
C. The approval authority may interpret the design guidelines with some flexibility in their application to specific signs/projects, as not all design criteria may be workable or appropriate for each sign or project. In some circumstances, one guideline may be relaxed to facilitate compliance with another guideline determined by the approval authority to be more important in the particular case. The overall objective is to ensure that the intent and spirit of the Design Guidelines are followed.

D. The Sign Design Guidelines in this appendix are presented in two applications:

   1. The first section provides general guidelines that apply citywide.

   2. The second section provides specific guidelines that apply for individual types of permitted signs and for any specific geographic area and/or zones. Applicants proposing signs in these zones and/or geographic areas with specific guidelines will be required to follow both sets of guidelines.

E. The photographs of signs in these guidelines are for illustrative purposes only; readers are to consult the Zoning Code for specifics regarding height, sign dimensions, and permitted lines of articles of information.



Individual channel letter signs in a simple letter style rather than taking focus away from complement building design.

III. CITYWIDE SIGN DESIGN GUIDELINES

A. DESIGN COMPATIBILITY

The design and location of signs shall be consistent with the character and scale of the buildings to which they are attached and visually harmonious with surrounding development.

1. QUALITY SIGNS REQUIRED

Throughout Riverside, signs play a major role in portraying an image for the City. Signs must make a positive contribution to the general appearance of the street and commercial area in which they are located. A well-designed sign can be a major asset to a building. The City requires high-quality, imaginative, and innovative sign design.

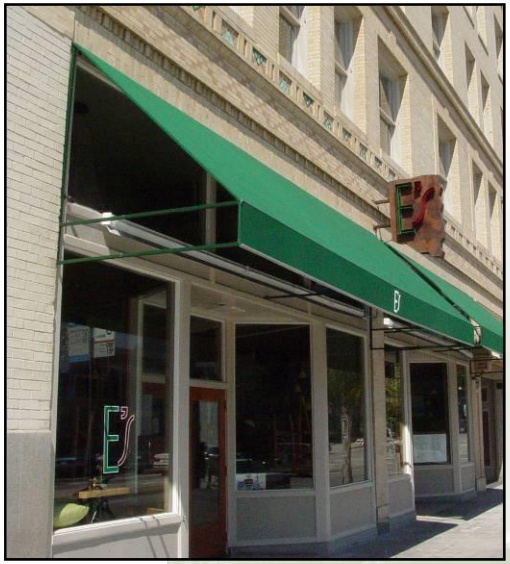
Discouraged

Certain innovative, whimsical signs are appropriate within pedestrian zones.

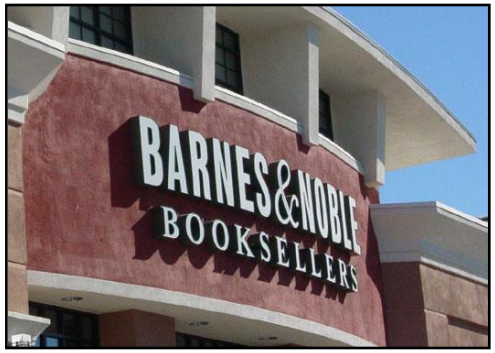
2. PROPORTIONAL SIZE AND SCALE

The scale of signs should be appropriate for the building on which they are placed and the area in which they are located. The size and shape of a sign shall be proportional with the scale of the structure. Small storefronts shall have smaller signs than larger storefronts.

Discouraged: Sign is too massive and out of scale.



Discouraged: Signs are too small for store frontage and barely legible



Encouraged: Appropriate size and scale

3. INTEGRATE SIGNS WITH THE BUILDING

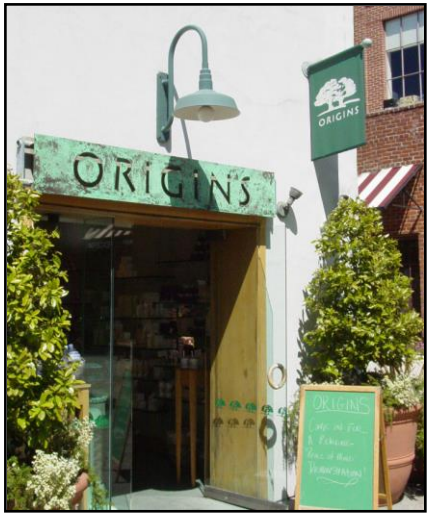
Signs shall be designed so that they are integrated with the design of the building. A well-designed building facade or storefront is created by the careful coordination of sign and architectural design, and a coordinated color scheme. Signs in multiple-tenant buildings shall be designed to complement or enhance the other signs in the building.

Encouraged: Signs are well integrated into architectural elements of the structures that they identify.

4. SIGN PROGRAMS

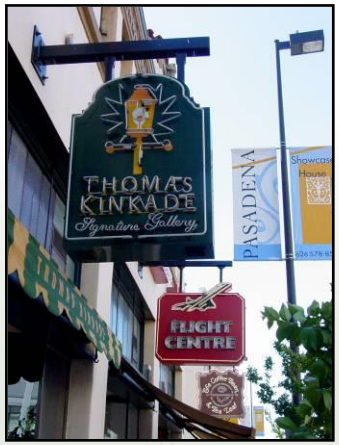
Sign programs serve to create a coordinated project theme of uniform design elements such as color, lettering style, and placement. Sign programs are required for new multiple-tenant buildings or complexes and encouraged for existing buildings and complexes.

Discouraged: Signs within program are not consistent in color and design.



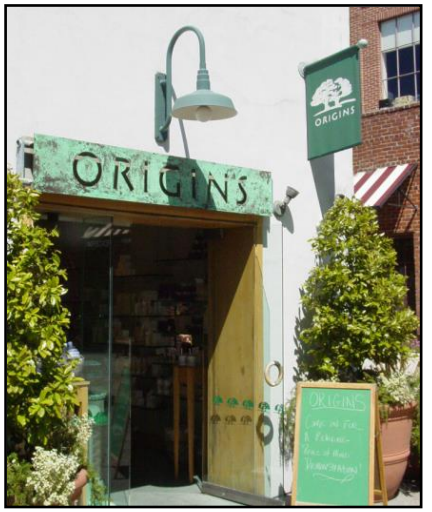
Encouraged: Signs within program are uniform in design.

5. PEDESTRIAN-ORIENTED SIGNS



Pedestrian-oriented signs are signs that are designed for and directed toward pedestrians so that pedestrians can easily and comfortably read the sign as they stand adjacent to the business. It is desirable and encouraged to include a pedestrian-oriented sign as one of the permitted signs for a business. A-frame/pedestrian mall sidewalk signs are permitted only in specific locations as identified in the Zoning Code and Downtown Specific Plan.

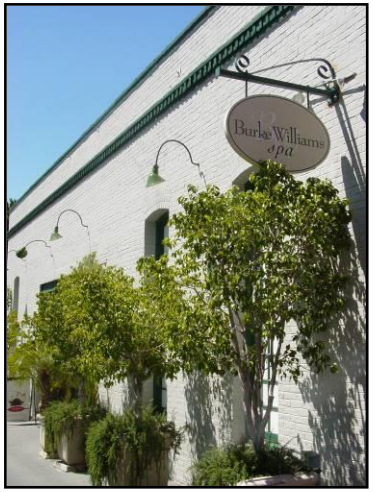
Pedestrian-oriented signs such as projecting/blade, awning/canopy; under canopy are encouraged.



6. REDUCE SIGN IMPACT

Where residential and commercial uses exist in close proximity, signs should be designed and located so that they have little or no impact on adjacent residential neighborhoods. The illumination of signs may be restricted adjacent to residential uses.

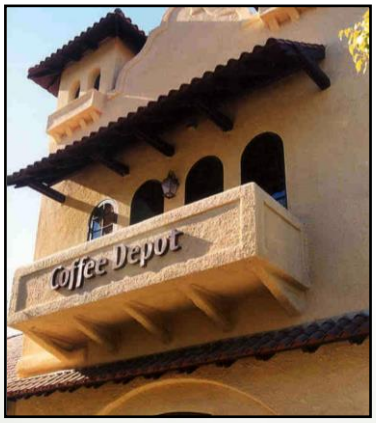
Encouraged: Monument entry signs provide an attractive transition from commercial to residential uses.



Encouraged: Projecting/Blade Sign surrounded by landscaping to reduces visual impact.

Sign Blight occurs when a business has too many signs, overwhelming potential customers and thwarting communication. The business owner should limit the size and number of their signs so information can be understood in a sequence of importance.

Prohibited approaches to signage



Architectural elements such as the cantilevered balcony, above, and the arched entry, below, provide ideal locations for signs.

B. SIGN LOCATION

1. The architecture of the building often identifies specific locations for signs, and these locations should be used, except when these areas are above the main roof line.
2. Repetitious signage information on the same building frontage should be avoided, regardless of the sign area square frontage allowed in the Zoning Code.
3. To minimize irreversible damage to masonry, all mounting and supports should be inserted into mortar joints and not into the face of the masonry. This technique does not damage the surface and allows for easy removal.
4. Signs that are replaced on stucco exteriors can result in unattractive "patched" areas. These potential maintenance problems shall be addressed during the approval process for the sign replacement.
5. Wall signs should be placed to establish facade rhythm, scale, and proportion. On buildings that have a monolithic or plain facade, signs can be placed to establish or continue appropriate design rhythm, scale, and proportion.

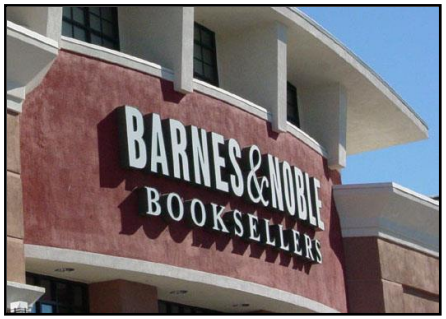
Encouraged: Placement of wall-mounted sign directly above the storefront respects and accentuates the building's architecture.

Discouraged: Wall-mounted sign covers transom windows and would be better located above.

C. SIGN COLOR

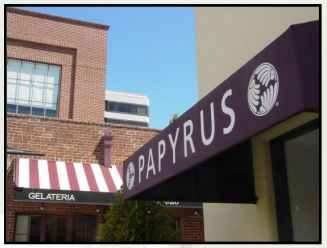
a. Color is one of the most important aspects of visual communication. It can be used to catch the eye or to communicate ideas or feelings. Colors should be selected to contribute to legibility and design integrity. Even the most carefully thought-out sign may be unattractive and a poor communicator because of poor color selection. Too many colors used thoughtlessly can confuse the reader and negate the message of a sign. Fluorescent colors are not permitted.

1. COLOR SELECTION



a. Contrast is an important influence on the legibility of signs. A substantial contrast should be provided between the color and material of the background and the letters or symbols to make the sign easier to read during both day and night. Light letters on a dark background or dark letters on a light background are most legible. Light letters on a dark background work best for both day and night-time use.

2. CONTRASTING COLORS



a. Colors or color combinations that interfere with legibility of the sign copy or that interfere with viewer identification of other signs should be avoided. Small accents of several colors may make a sign unique and attractive, but the competition of large areas of many different colors often decreases readability.

3. OVERUSE OF COLOR

a. Sign colors should complement the colors used on the adjacent buildings and the project as a whole.

4. COMPLEMENTARY COLORS

D. USE OF MATERIALS

1. COMPATIBILITY OF MATERIALS

a. Sign materials shall be compatible with the design of the facade on which they are placed. Developers/designers shall consider the architectural design of the building's facade and select materials that complement the design. The selected materials should also contribute to the legibility of the sign. For example, glossy finishes are often difficult to read because of glare and reflections.

2. APPROPRIATE MATERIALS

a. Sign materials should be extremely durable. Paper and cloth signs are not suitable for exterior use (except on awnings) because they deteriorate quickly. If wood is used, it shall be properly sealed to keep moisture from soaking into the wood and causing the sign's lettering to deteriorate.

Encouraged: Sign materials consistent with building materials found on retail commercial establishments.

E. SIGN LEGIBILITY

1. USE A BRIEF MESSAGE

a. A brief message should be used whenever possible. The fewer the words, the more effective the sign. A sign with a brief, succinct message is easier to read and looks more attractive because it is less cluttered. Evaluate each word. If the word does not contribute directly to the basic message of the sign, it probably detracts from it and should be deleted.

2. LETTER AND WORD SPACING

a. Letters and words should not be spaced too closely. Crowding of letters, words, or lines will make any sign more difficult to read. Conversely, overspacing of these elements causes the viewer to read each item individually, again obscuring the message. Letters should not crowd the margins of the sign area.

Encouraged

Discouraged

3. USE SYMBOLS AND LOGOS

a. Symbols and logos can be used in place of words whenever appropriate. Pictographic images will usually register more quickly in the viewer's mind than a written message. And, they can be an expression of the owner's creativity.

Encouraged: Creative use of symbols and logos can take the place of or accentuate words on signs.

4. LIMIT THE NUMBER OF LETTER STYLES

a. The number of lettering styles that are used on a sign should be limited in order to increase legibility. As a general rule, limit the number of different letter types to no more than two for small signs and three for larger signs. Intricate typefaces and symbols that are difficult to read reduce the sign's ability to communicate. In other words, keep it simple.

Limit sign text to two letter styles and ideally two lines of text.

5. PEDESTRIAN-ORIENTED SIGN LEGIBILITY

a. Signs should be smaller if they are oriented to pedestrians. The pedestrian-oriented sign is usually read from a distance of fifteen to twenty feet; the vehicle-oriented sign is viewed from a much greater distance. The closer a sign's viewing distance, the smaller that sign should be.

Pedestrian-oriented signs such as this wall-mounted sign and projecting/blade sign should be in scale with its target pedestrian audience and the surrounding area from which it is viewed.

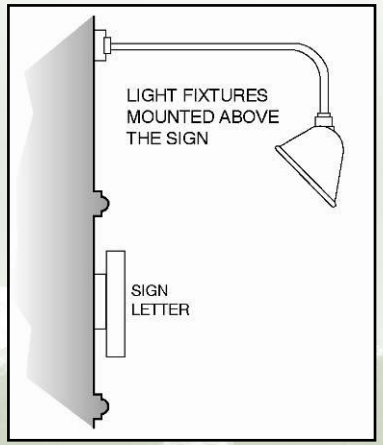
F. SIGN ILLUMINATION

Sign illumination is a necessary component for effective visual communication, particularly for establishments conducting business in the after-dark hours. However, too much light can also be a nuisance. Applicants should consider if the sign needs to be lighted at all. Lighted window displays may provide sufficient illumination to identify the business. This can be particularly effective when good window displays and graphics are used.

a. Illumination by a projected light (e.g., spotlight) is usually the best arrangement, as the sign appears to be integrated with the building's architecture. Projected lighting emphasizes the continuity of the structure's surface, and signs become an integral part of the façade, which is typically not exhibited with internal illumination. Fixtures illuminating in front of the sign cast light onto the sign as well as the building's façade.

a. The use of small, unobtrusive fixtures for external (projection) lighting is encouraged. Avoid the use of oversized fixtures that are out of scale with the sign and structure.

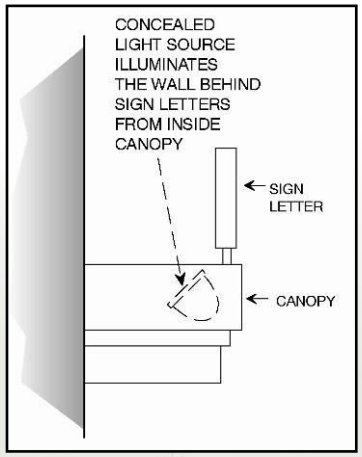
1. USE A PROJECTED LIGHT SOURCE



2. USE SMALL LIGHT FIXTURES

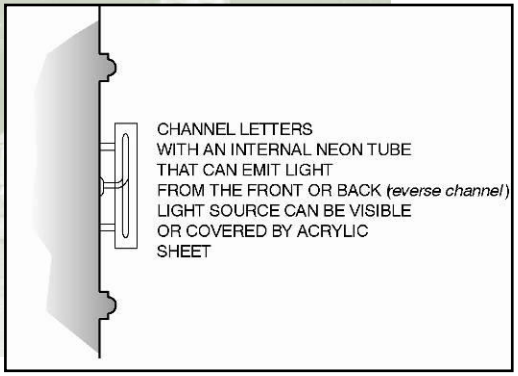
3. BACK-LIGHTED SIGNS

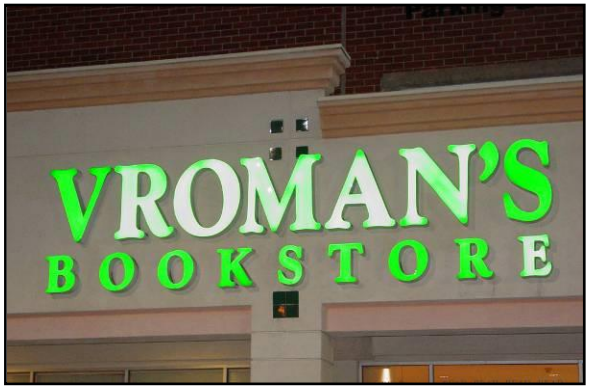
a. Back-lighted, solid letters are encouraged. Signs consisting of opaque, individually cut letters mounted directly on a structure can often use a distinctive element of the structure's facade as a backdrop, thereby providing a better integration of the sign with the structure.



4. INTERNAL ILLUMINATION

a. Individually illuminated letters, either internally illuminated or backlit solid letters (reverse channel), are a preferred alternative to internally illuminated plastic cabinet (can) signs. Signs comprised of individual letters mounted directly on a structure can often use a distinctive element of the structure's facade as a backdrop, thereby providing a better integration of the sign with the structure.





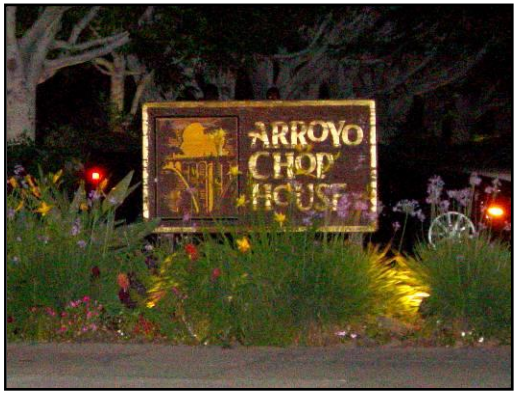
Internally illuminated channel letters

5. CABINET SIGNS

a. The use of internally illuminated cabinet signs is generally discouraged, except as Projecting/Blade Signs or Monument Signs. When such signs are proposed, the background field should be opaque so that only the lettering appears illuminated. When the background is not opaque, the entire sign face is illuminated and appears separate from the building, disrupting the continuity of the facade.

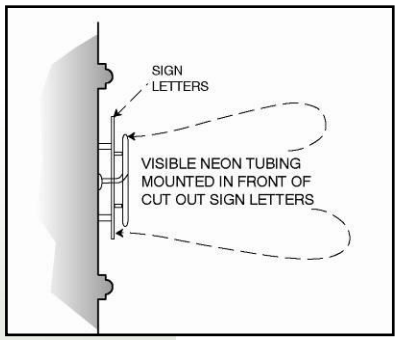
6. UP-LIGHTED SIGNS

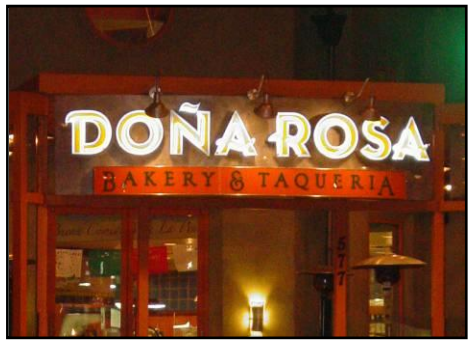
a. Up-lighting refers to a lighting technique used particularly with monument signs where the light source is located typically in the ground and/or landscaping or within a projecting wall relief, concealed from view. This technique is encouraged, especially for illuminating monument signs.



7. NEON SIGNS

a. Neon back-lighted signs with opaque, reverse channel letters, neon back-lighted signs with dimensional plexiglas letters, and signs with illuminated open-face, channel letters may be appropriate forms of illuminated signs in certain situations. Where consistent with the design/architectural theme of a building or development, exposed neon tubing script may also be an appropriate alternative, as it fits within the context of a building.



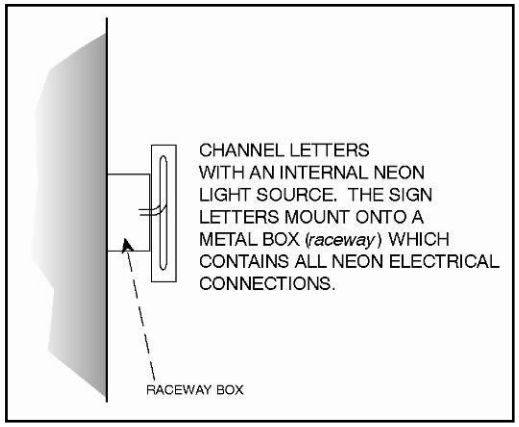


8. SHIELD THE LIGHT SOURCE

a. Whenever projection lighting is used (fluorescent or incandescent), care should be taken to properly shield the light source to prevent glare from spilling over into residential areas and any public right-of-way. Signs should be lighted only to the minimum level required for nighttime readability.

9. ELECTRICAL RACEWAYS AND CONDUITS

a. Electrical transformer boxes and raceways are required to be concealed from public view. If a raceway cannot be mounted internally behind the finished exterior wall, the exposed metal surfaces of the raceway shall be finished to match the background wall or integrated into the overall design of the sign.
b. If raceways are necessary, they should be as thin and narrow as possible and shall never extend in width or height beyond the area of the sign's lettering or graphics.
c. All exposed conduit and junction boxes shall also be concealed from public view.



10. SIGN BRIGHTNESS

The brightness of signs, when lighted, shall conform to the following standards:

a. Flourescent sign illumination shall not exceed 430 millilamps.

b. Neon lighting shall not exceed 30 millilamps.

c. Incandescent lighting shall not exceed 50 watts.

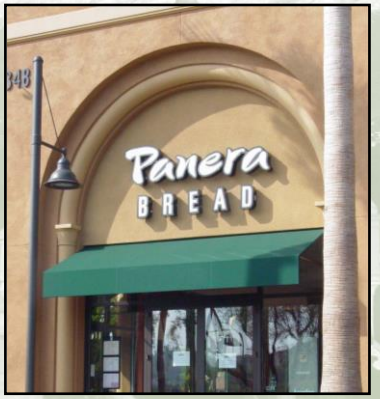
IV. PERMITTED SIGNS AND SPECIFIC GUIDELINES

The design and location of signs shall be consistent with the character and scale of the buildings to which they are attached and visually harmonious with surrounding development.

A. AFFIXED SIGNS

Affixed signs refer to signs that are physically attached to the building façade. The signs include wall, window, awning/canopy, projecting/blade, banner, under-canopy/hanging, marquee, plaque, restaurant menu, and tenant directory signs. Roof- mounted signs are prohibited, with the exception of signs placed on a mansard roof. However, mansard roof designs, and subsequently mansard roof-mounted signs, are strongly discouraged in the Citywide Design Guidelines.

1. BUILDING (WALL) SIGNS



Building Signs, also called Wall Signs, are to be mounted flush and fixed securely to a building wall, projecting no more than 12 inches from the face of a building wall, and not extending sideways beyond the building face or above the highest line of the building to which it is attached.

a. Wall signs should be located on the upper portion of the storefront, within or just above the storefront opening. The length of the sign should not exceed the width of the storefront.
b. Wall signs shall be placed within a clear area. These areas are defined as an architecturally continuous wall surface uninterrupted by doors, windows or architectural detail.
c. Wall signs should not exceed 15% of the building façade (the exterior walls of a building exposed to public view).
d. Wall signs shall be mounted in locations that respect the design of a building, including the arrangement of bays and openings.
e. Signs should not obscure windows, grillwork, piers, pilasters, and ornamental features. Typically, wall signs should be centered on horizontal surfaces (i.e., over a storefront opening).
f. Wall signs shall be designed to be compatible with the storefront in scale, proportions, and color.

g. Signs should be designed to create a clearly defined edge, provide shadow relief, and a substantial appearance. This effect is generally difficult to achieve by painting the sign directly on the building. For this reason, painted signs are discouraged.

Wall-mounted channel letters are encouraged

Discouraged

2. WINDOW SIGNS

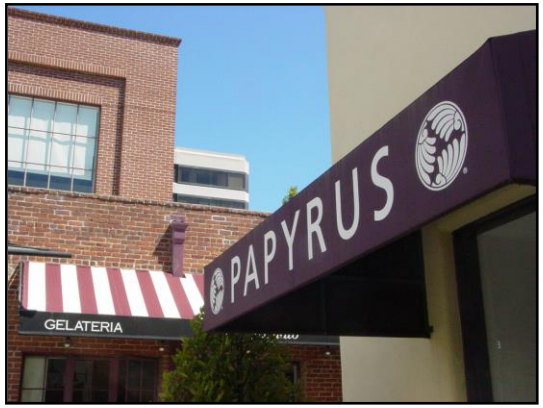
Window signs are signs that are painted, posted, displayed, or etched on an interior translucent or transparent surface, including windows or doors. This type of signage generally contains only text but in some circumstances can express a special business personality through graphic logos or images combined with color.

a. Window signs shall not exceed 15% of the window area so that visibility into and out of the window is not obscured.
b. Sign copy should not exceed 8 inches in height.
c. Window sign copy shall be applied directly to glazed area.
d. Window signs should be applied directly to the interior face of the glazing or hung inside the window thereby concealing all mounting hardware and equipment.
e. Well-designed window graphics shall be used in the construction of the sign to attract attention but still allow pedestrians to view store interiors.

3. AWNING AND CANOPY SIGNS

Awning and Canopy Signs are signs that are printed on, painted on, or attached to an awning or canopy above a business door or window. They may be used in place of permitted Under Canopy Signs. They generally serve to bring color to the shopping environment and are oriented toward pedestrians from the opposite side of the street.

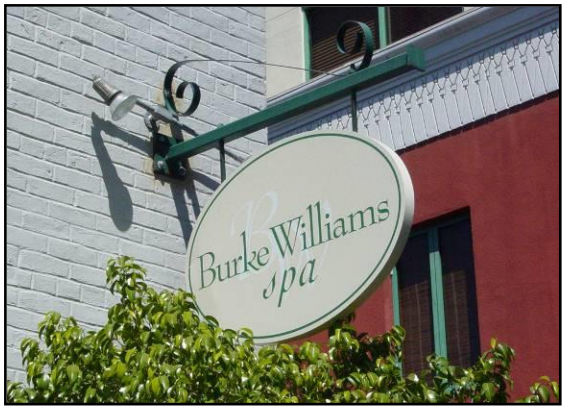
a. Sign lettering and/or logo should comprise no more than 30% of the total exterior surface of an awning or canopy.
b. Awnings and canopies must be permanently attached to buildings.
c. The minimum height of awnings shall be 8 feet from the lowest point to the sidewalk.
d. Awnings and canopies shall be mounted on the horizontal framing element separating the storefront window from the transom (a crosspiece separating a doorway from a window).
e. Awnings shall be designed to project over individual window and door openings and not project as a single continuous feature extending over masonry piers or arches.
f. Awnings must be constructed of durable materials that can be maintained in good condition.
g. Awnings with back-lit graphics or other kinds of interior illumination are not permitted.
h. Matte finish canvas, glass, or metal are appropriate materials for awnings or canopies.
i. Awnings with a solid color are preferred. Striped awnings may be appropriate for some buildings without ornamental facades. Striped awnings with highly contrasting, bright colors may be visually blaring and inappropriate.



4. PROJECTING OR BLADE (PERPENDICULAR) SIGNS

Projecting/Blade (Perpendicular) Signs are affixed to the face of a building or structure and project in a perpendicular manner more than 12 inches from the wall surface of that portion of the building or structure to which it is mounted. These types of signs are considered Under Canopy Signs, even when not placed under a canopy. These signs are strongly encouraged and should be carefully designed to reflect the character of each building and business, as well as fitting comfortably with other adjacent signage. Where permitted:

a. Projecting/Blade (Perpendicular) Signs should not be mounted above the second floor window-sill in multi-storied buildings.
b. The design of the sign should consider visually interesting elements such as square or rectangular shapes with painted or applied letters, two or three dimensional symbols or icons, irregular outlines, and/or internal cut-outs.
c. Projecting/Blade (Perpendicular) Signs shall be small in scale and provide a vertical clearance of at least 8 feet along pedestrian areas.
d. Projecting/Blade (Perpendicular) Signs shall be oriented to pedestrians passing on the sidewalk in front of the buildings rather than to automobiles or pedestrians on the far side of the street. This can be achieved by providing a minimum clearance of 12 inches between the building face and sign and maintaining a projection of 36 inches.
e. Projecting/Blade (Perpendicular) Signs should fit within an imaginary rectangle with a maximum area of 5 square feet.
f. Mounting hardware should be an attractive and integral part of the sign design. Simple round pipe brackets with plugged ends or added decorative end elements are generally appropriate for signs. However, metal brackets of a more decorative and complex shape are encouraged where appropriate to add to the character of the building.



5. UNDER-CANOPY OR HANGING SIGNS

Under-Canopy or Hanging Signs are similar to Projecting/Blade Signs, except that they are suspended below a marquee or under a canopy. Under-Canopy or Hanging Signs are generally smaller than Projecting/Blade Signs due to their lower mounting height. Where permitted:

a. Under-Canopy/Hanging Signs shall be used only at ground-floor locations except for upper-floor businesses with covered entry porches and balconies.

b. Under-Canopy/Hanging Signs shall be treated similar to but smaller than Projecting/Blade Signs.

c. Under-Canopy/Hanging Signs, excluding supporting rods, chains or similar hangers, shall fit within an imaginary rectangle with a maximum area of 4 square feet.

d. Signs shall be oriented toward the pedestrian and impart a sense of creativity in its design.

6. MARQUEE SIGNS

a. Marquee signs are to be installed only on buildings occupied by theaters, cinemas, performing arts facilities, or parking structures.

b. The sign copy of marquee signs shall be limited to include only the facility's name and changeable copy related to current and future attractions.

c. The facility name portion of the sign shall not exceed 40 percent of the total sign area, and the changeable copy portions of the sign shall not exceed 80 percent of the total sign area.

7. PLAQUE SIGNS

By definition, plaque signs are small versions of Building (Wall) Signs that are attached to surfaces adjacent to shop front entries. These signs are also encouraged for Planned Residential Development and Apartment and Condominium Project identification.

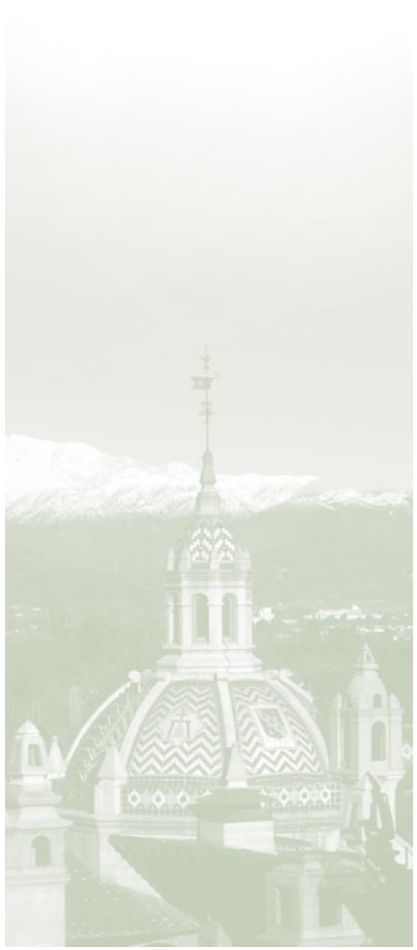
a. Plaque signs are to be located only on wall surfaces adjacent to tenant entries.
b. Signs are to include the business name and a business logo.
c. Plaque signs are encouraged to include unique designs or other visually stimulating decorations and may be irregular in outline shape.
d. For Planned Residential or multi-family Development, plaque signs are encouraged to be placed on low walls surrounded by landscaping and lit using up-lighting techniques where the light source is completely shielded by landscaping.

8. ADDRESS NUMBERS

Address numbers are typically individually channeled numeric plaque signs that are attached to surfaces adjacent to front entries.

a. Addresses must be legible to persons in vehicles and located within 4 feet of an entry door. Address numbers should be a minimum of four inches and a maximum of 6 inches in height.
b. Addresses can be individually cutout numbers mounted on the building exterior or numbers applied to a plaque. Numbers applied to a plaque can be painted, screen printed or adhesive vinyl. The plaque should be a minimum of one half inch thick and no larger than three inches from any edge to the numbers.
c. For business park, office/commercial, and industrial development, address numbers used in conjunction with monument signs are encouraged.

9. TENANT DIRECTORY SIGNS



Tenant Directory Signs are used to identify tenants within multi-tenant buildings. Tenant directory signs shall be constructed and oriented to the pedestrian and shall only be located immediately adjacent to a building entrance.

a. Tenant Directory signs shall be mounted flat against a solid wall.

b. The sign copy shall be limited to the following: building or project name, project logo, address, business tenant names, and suite numbers or letters.

c. The letter size of the building name or project name shall not exceed 4 inches in height. All other copy shall not exceed 2 inches in height.

d. Tenant Directory Signs should be constructed out of materials that complement both the building structure and its use.

B. FREESTANDING SIGNS

Freestanding signs refer to signs that are supported separate from the structure that they identify. These two-sided signs include monument sign, pole signs, and directional/way-finding signs. The following general guidelines apply.

1. The sign structure should be architecturally designed and incorporate design details, materials, and colors of the associated buildings.

2. Sign panels should be limited in size to the width of the architectural support elements of the sign.

3. Freestanding signs may be internally illuminated; however, the sign copy is the only portion that should be illuminated. The sign background or field should be opaque. Signs with individual letters, or stenciled panels with push-through graphics are encouraged.

4. Individual tenant sign panels should be uniform in size recognizing that the major tenant, or the name of the center may have a slightly larger sign panel.

5. Freestanding signs must be situated within landscape planters, and accent plantings at the sign base are strongly encouraged.

1. MONUMENT SIGNS

Monument signs are freestanding signs with a lower height configuration. Such signs are typically used for building complexes that are separated from adjacent streets by substantial setbacks.

a. Monument signs do not overhang public property and are supported by two columns, uprights, or have a solid footing in or upon the ground.
b. Architectural lines which compliment that of the building shall be incorporated, especially with respect to the top of the sign.
c. The design of the sign structure and the text shall express high-quality construction.
d. The monument sign's materials, finishes, and colors shall be of the same or compatible to the materials, finishes, and colors used on the primary structure(s) that which the sign is identifying.
e. Monument signs shall be composed of individual lettering that is consistent with the image of the business and the surrounding architectural style.
f. Low-profile signs must be illuminated either by external fixtures designed to complement the appearance of the sign or back-lit illumination.
g. Internal illumination may be permitted and should be designed such that only text and logos illuminate. Opaque backgrounds are encouraged and shall be of a non-reflective material.
h. Monument signs and their bases must be placed within a planted landscape area.
i. The base of these signs are encouraged to be illuminated using up-lighting techniques where the source of the light is completely shielded by landscaping.

Monument Sign

Monument Sign for Business Park/Industrial

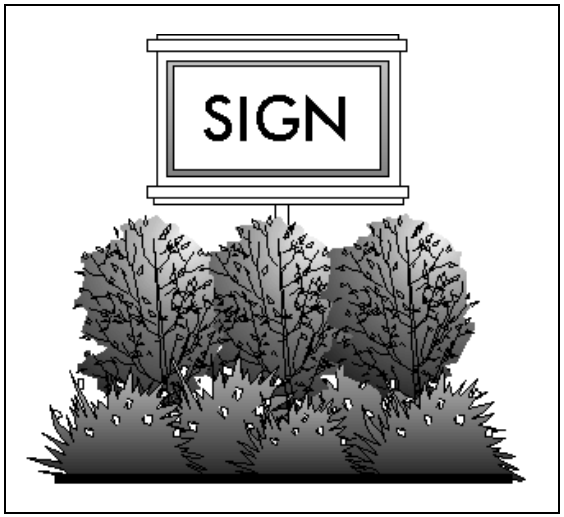
Monument Sign for Planned Residential Development

Monument Signs for commercial businesses

2. POLE SIGNS

Pole signs are freestanding signs generally in excess of 20 feet in height mounted on one or more poles or posts. While these signs are permitted by the Zoning Code, applicants are encouraged to use the more preferred monument sign as an alternative to the pole sign.

a. Poles signs and their bases must be located within a planted landscape area.
b. Pole signs should mount to a base whose material and/or color and finish is in use on the building.
c. As an option to mounting the pole(s) in a base, dense foliage like a hedge may be used where the pole(s) meet the ground.
d. The support elements should be substantial and designed to complement the remainder of the sign.



Preferred Pole Sign

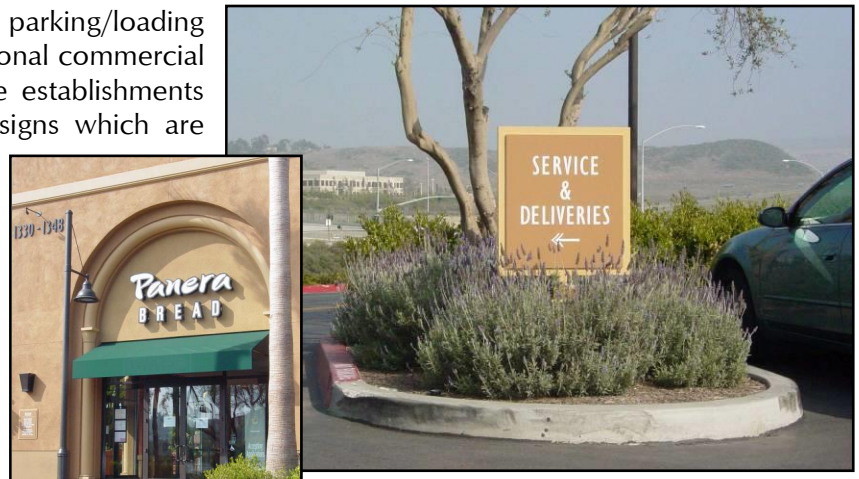
Not permitted

3. DIRECTIONAL AND WAY-FINDING SIGNS

Properties with on-site private parking/loading adjacent to their buildings and regional commercial development with several separate establishments may have directional/way-finding signs which are vehicle oriented.

a. These signs should be freestanding and located in landscaped areas.

b. Their color and design schemes shall match the colors, lettering style, and materials used on the building signs.



Directional sign color and finish consistent with business

C. TEMPORARY SIGNS

Temporary signs take the form of banners, window graphics, or as cards integrated with a window display. Temporary signs may contain written messages and should use a simple font that is easy to read.

1. Temporary signs shall not cover more than permitted by the Zoning Code.
2. Temporary signs are to be allowed on the interior of the business establishment only.
3. Temporary signs should be made of durable materials and shall not incorporate fluorescent or intensely bright colors.
4. Temporary signs should be carefully designed and constructed, as they reflect on the quality of the business.

D. SPECIFIC SIGN GUIDELINES

Pedestrian mall sidewalk (A-frame) signs are permitted only for specific uses identified in the Zoning Code and within the Downtown Specific Plan area, as specified in the specific plan. These signs are designed to stand on their own, are portable and are usually placed along public sidewalks to attract pedestrians into shopping areas.

a. Pedestrian mall sidewalk signs shall be located in front of the business and not be located in a landscape planter, permanent seating area, or any location which may create an impediment to pedestrian, disabled, or emergency access.

b. A pedestrian mall sidewalk sign may not exceed 12 square-feet in overall area, nor a maximum height or width of 4 feet. No more than 50% of the overall sign area may be used for changeable copy.

c. Pedestrian mall sidewalk signs must not be permanently affixed to any object, structure, or the ground.

d. A pedestrian mall sidewalk sign must be constructed using one of the following durable materials: wooden or metal signs suspended form a wire frame, wooden A-frame signs with open bases, or shaped silhouette signs made of plywood, metal, or similar wood-like material that can withstand various weather conditions. Glass, breakable materials, paper, laminated paper, vinyl, plastic, PVC pipe frames, or illumination are not permitted materials.

e. All visible surfaces of the sign shall be finished in a uniform or complementary manner.

f. A pedestrian mall sidewalk sign designs shall be uncluttered, with a minimum of text. Logos and graphics are encouraged.

g. Lettering and graphics shall be of a professional quality. Borders, artistic enhancements, and graphics reflecting the nature of the related business are encouraged.

h. Lettering and graphics shall be of a professional quality.

1. PEDESTRIAN MALL SIDEWALK SIGNS

2. SIGNS FOR HISTORIC BUILDINGS

Many of Riverside's historic buildings are rich with architectural elements and details. Extreme care must be taken not to cover or interfere with design elements that contribute to the building's character.

a. Signs must not cover over architectural elements. As major elements of the storefront, signs must also fit into the building façade just as if they were one of the architectural elements. Within permitted parameters, use a building's or storefront's architectural elements, such as prominent entranceways, display windows, and lintel bands or friezes above transom windows or cornices, to suggest a location, size, or shape for the sign.

b. Signs, themselves, may also be a significant historic architectural feature of a building. The rehabilitation of these signs is strongly encouraged.

c. Lighting shall be in accordance with historically appropriate lighting types. This includes neon, individual incandescent bulbs, and overhead goose-neck lighting, subject to compliance with current electrical codes.

d. Per the Zoning Code, City's sign regulations are intended to allow the construction and installation of signs that are in character with the building or district on/in which it is proposed to be located. However, the intent of these regulations is not to require all signs on a historic building be exact replicas of the signs that would have been on the building when it was new. Rather, a range of sign types that would have been applied to the building during its period of historic significance is allowed. See Section 19.76.075 Historic Signs of the Riverside Zoning Code for further regulations pertaining to the signing of Designated Historic Resources.

V. DEFINITIONS FOR SIGN DESIGN GUIDELINES

The design and signage vocabulary as they apply to this Appendix are defined below. See *Chapter VII. Glossary* of the Citywide Design Guidelines for a more comprehensive glossary of design terms.

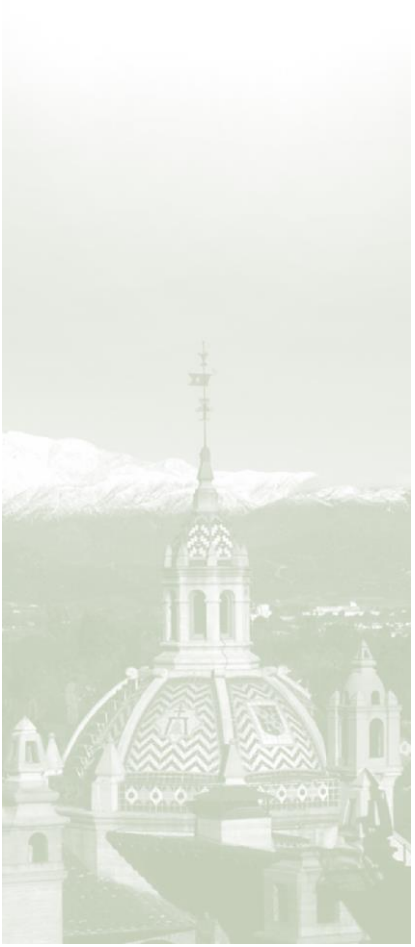
Area of a Sign The area within a maximum of two elements, with each element comprised of a maximum four continuous straight lines enclosing the entire perimeter of the sign including all text, emblems, arrows, ornaments or other sign media. When two elements are used, they must share at least one point in common. For monument or pole signs, when two identical sign faces are placed back to back on the same structure, the sign area shall be computed by the measurement of one sign face. For signs with more than two sign faces, the sign area shall be computed by including all sign faces.

Awning A structure projecting from the façade of a building for the purpose of ornamentation and/or protection for pedestrians. Awnings are located primarily on the front façade over the primary entrance and/or storefront windows.

Blade Sign A double-sided sign oriented perpendicular to the building wall on which it is mounted. Also referred to as a Projecting Sign.

Building Frontage For the purpose of calculating sign areas, "building frontage" means the linear measurement of exterior walls enclosing interior spaces that are oriented to and most nearly parallel to public streets, public alleys, parking lots, malls or freeways.

Building Sign A sign with a single face of copy, painted or otherwise marked on or attached to the face of a building wall, mansard roof or canopy fascia. Signs placed on a mansard roof are considered building signs only if such signs do not extend above the top of the main building wall parapet to which the mansard roof is attached.



Canopy A fixed overhead shelter used as a roof, which may or may not be attached to a building.

Channel Letter An individual letter made of formed sheet metal, usually with an acrylic face and an internal light source.

Commercial Sign A sign that identifies, advertises or otherwise attracts attention to a product or business.

Compatible Projects that gives the appearance of existing together without conflict with respect to site design, architectural style, building massing, landscape, and signs.

Consistent Free from variation or contradiction.

Directory Sign A sign composed of three or more changeable panels where the copy is a fixed element of the background on which it is placed and when viewed together, all panels form or appear to form a single sign entity.

Fluorescent Colors The range of colors created through a synthetic pigmentation process in which ultraviolet light is absorbed and emitted at a different range within the color spectrum of the individual colors. The prohibited colors are listed on the fluorescent color chart as adopted by the City, are kept on file in the Planning & Building Department.

Freestanding Sign Any sign supported by structures or supports that are placed on, or anchored in, the ground which are independent from any building or other structure, such as pole and monument signs.

Height of Sign The distance from the average ground level immediately surrounding the base of the sign to the top of its highest element, including any structural or architectural element. Landscape mounding shall not be used to artificially increase the height of a sign.

Letter Area The total square feet of the letters and logos in a sign that can fit within a set number of straight vertical and horizontal lines.

Lighted Sign A sign which is illuminated either directly or indirectly by artificial light.

Mansard Roof A roof with two slopes on each side, the lower slope being much steeper.

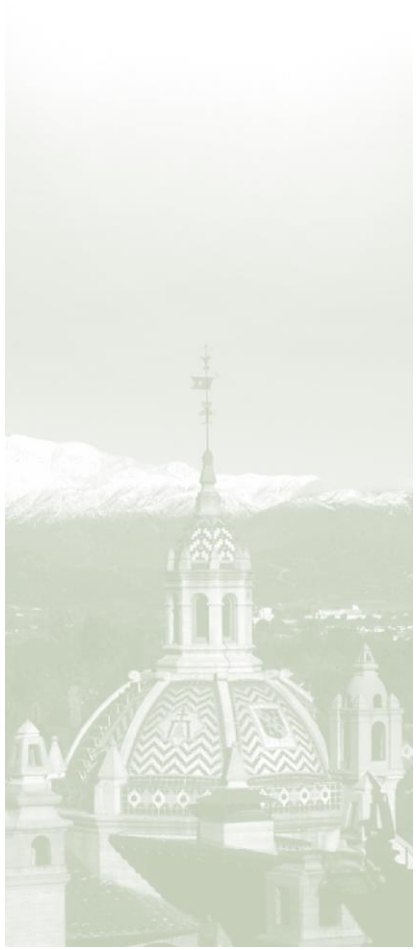
Menu Display A single-sided framed menu attached to the moveable barrier that defines the outdoor dining area in the public right-of-way.

Monument Sign A two-sided sign with an overall height of eight feet or less, standing directly on the ground or on a monument base or where supporting poles or structures, if any, are enclosed by decorative covers. A monument sign must be situated in a planter flanking all sides of the sign base.

Mural A commissioned artistic rendering that does not in any way advertise a product, service or business logo or contain copy that includes a business name or logo.

Neon Sign A sign comprised partially or entirely of exposed small diameter tubing, illuminated by neon, argon or other means.

Painted Sign A sign which is painted directly on any wall, window, fence or structure of any kind.



Pedestrian Mall A pedestrian mall is established and is described as follows: Main Street between the southerly line of Sixth Street and the northerly line of Tenth Street but excluding from the mall the intersections of Main Street with Mission Inn Avenue (formerly known as Seventh Street), University Avenue (formerly known as Eighth Street), and excluding from the mall Ninth Street. (Ordinance No. 6929)

Pedestrian-oriented Development designed with an emphasis primarily on the street sidewalk and development on pedestrian access to the site and building, rather than on auto access and parking areas. The building is generally placed close to the street and the main entrance is oriented to the street sidewalk. There are generally windows or display cases along building façades which face the street.

Pedestrian Scale The relating of the structures in the built environment to the size of a person.

Plaque Sign A wall sign.

Pole Sign A two-sided sign with an overall height exceeding eight feet and having one or more supports permanently attached directly into or upon the ground.

Portable Sign A sign which is capable of being carried or readily moved from one location to another. Also referred to as an A-frame Sign.

Projecting Sign A double-sided sign oriented perpendicular to the building wall on which it is mounted. Also referred to as a Blade Sign.

Proportion The relationship between elements taken as a whole or in comparison to each other. Often expressed as a ratio.

Raceway A box mounted on the building exterior that houses the wiring and transformers to which channel letters are mounted.

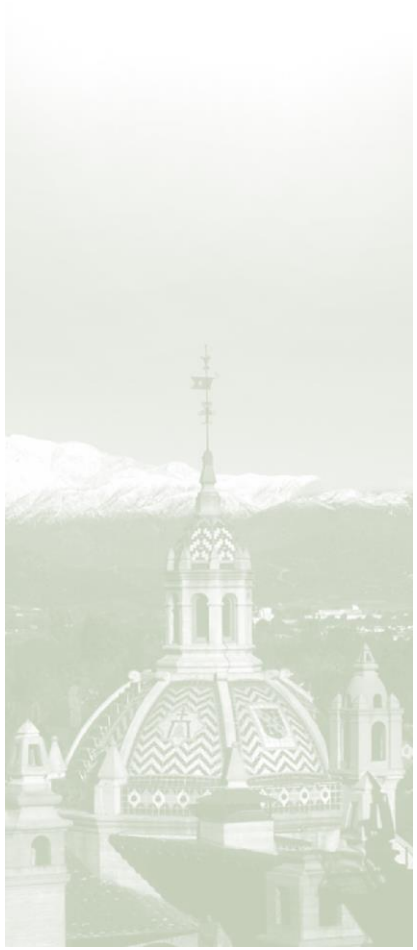
Readerboard Sign A sign having changeable copy used to announce a coming event or attraction or used to convey a commercial or non-commercial message related to the building or use of the property on which the readerboard sign is located.

Reverse Channel Letter A three-dimensional letter with a metal face and sides and an open back so the internal light source illuminates the wall and silhouettes the letters at night.

Roof Sign Any sign supported by or attached to or projecting through the roof of a building or structure, or projecting above the eave line or parapet wall of the building or structure. Roof sign shall not include a sign attached to a mansard roof pursuant to the definitions of building sign and mansard roof or a vertical sign as defined in Section 19.76.140 of the Zoning Code.

Scale Proportionate size judged in relation to an external point of reference.

Sign Any medium for visual communication, including but not limited to words, symbols and illustrations, together with all parts, materials, frame and background, which is used or intended to be used to attract attention to identify or advertise an establishment, product, service, activity or location or provide information or an opinion.



Sign Area	The area within a maximum of two elements, with each element comprised of a maximum four continuous straight lines enclosing the entire perimeter of the sign including all text, emblems, arrows, ornaments or other sign media. When two elements are used, they must share at least one point in common. For monument or pole signs, when two identical sign faces are placed back to back on the same structure, the sign area shall be computed by the measurement of one sign face. For signs with more than two sign faces, the sign area shall be computed by including all sign faces.
Sign Cabinet	A type of sign construction made of a metal container which houses fluorescent tube lights. Frequently these signs have a translucent acrylic sign face.
Sign Face	An exterior display surface of a sign including non-structural trim exclusive of the supporting structure.
Sign Program	A set of design standards or criteria that governs the signs of a designated lot or site.
Temporary Sign	A commercial or non-commercial sign displayed for a period of time not exceeding thirty days or as otherwise provided by the Zoning Code.
Two-sided Sign	A freestanding sign where two identical sign faces are placed back to back on the same structure. Any other configuration is considered to be a sign with more than two faces.
Under-Canopy Sign	A sign with a single or double face copy hung below a canopy perpendicular to the adjacent building wall of the business being identified.
Window Sign	A sign with a single face of copy which is permanently marked on or adhered to a window or which is oriented toward a window and designed to read through a window.

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Riverside
Citywide Design Guidelines
Appendix B: Architectural Resources

Adopted November 2007
Resolution No. 21537
City of Riverside

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APPENDIX B: ARCHITECTURAL RESOURCES

The following appendix provides additional architectural design resources that can be applied in the development of new projects. These resources provide information pertaining to many of the architectural styles prevalent in Riverside. This listing of styles and their descriptions are intended to encourage design that promotes an appreciation of traditional architectural elements. These styles include, but are not limited to the following:

VICTORIAN

A prevalent style of architecture for single-family dwellings and commercial frontages, the Queen Anne, Stick, and Folk forms of Victorian style originated in England in the late 1800s. The style is typified by:

- Steeply pitched gabled roofs
- Decorative shingle patterns
- Ornate front porch details

Cone-shaped turret commonly referred to as a "Witch's Hat"

Ornate front porch with decorative columns

Queen Anne Victorian single-family residence

Decorative shingle patterns

Steeply pitched gabled roofs

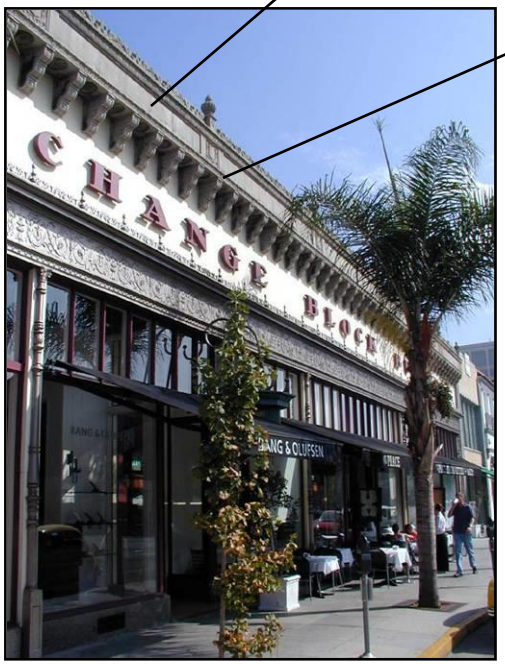
ITALIANATE

The Italianate style was part of the Picturesque movement imported from Europe, inspired by the breezy openness of Italian villas, circa 1840s through the 1890s. This style can be seen in many historic commercial and residential buildings in Riverside and, in particular, the Downtown and along Market/Magnolia. Italianate buildings are distinguished by:

- A boxy or square appearance
- Heavy use of ornamental brackets set under wide cornices and under door and window hoods

Wide cornice

Ornamental brackets



Italianate commercial frontage

Boxy/square appearance

ARTS AND CRAFTS/ CRAFTSMAN

This style of architecture originated in California during the Arts and Crafts Movement, starting from the late 1890s through the 1920s. Typical features include:

- A boxy or square appearance
- Low-pitched gable roofs with wide, unenclosed eave overhangs and exposed rafters
- Decorative (false) beams or braces added under the gables
- Large front porches supported by tapered, square wood columns adorned with exposed brick or river rock, leading to an exposed foundation made of the same material

Large front porch supported by columns

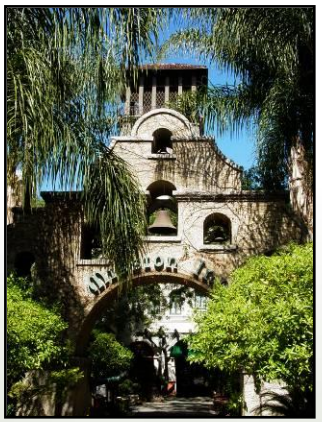
Decorative natural elements

Single-family residence in the Arts and Crafts style

MISSION

This eclectic style was popular in California from the 1890s to the 1920s. Influenced by the Spanish Colonial Mission buildings of early California, this type of architecture is best represented in Riverside with major portions of the Mission Inn. The Mission style can be seen in historic industrial warehouse buildings in Riverside. The style is typified by:

- Barrel clay tile roofs with wide overhanging eaves and shaped Mission dormers
- Parapet walls with decorative moldings and inverted arches
- Smooth stucco surfaces



The Mission Inn

Corner turrets

Smooth stucco surface

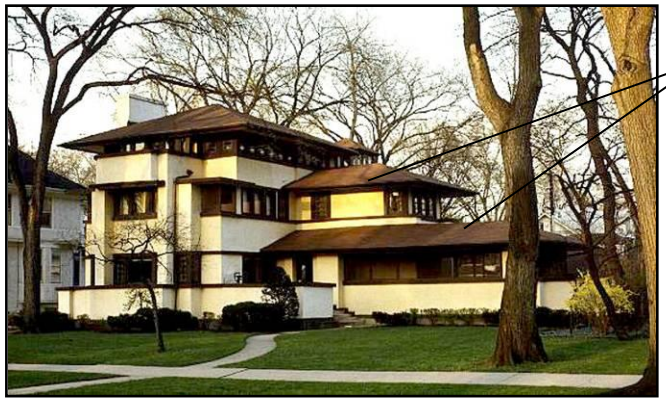
Mission Revival commercial/industrial building

Parapet walls in the classic mission shape

PRAIRIE

This architectural movement, usually credited to Frank Lloyd Wright, came about in the American Midwest between 1900 and 1916. Mostly applied to residential buildings, the style is typified by:

- Strong horizontal lines
- Overhanging flat or slightly hipped roofs with flat enclosed soffits
- Clustering of windows into bands of three, four, or more openings



Overhanging flat or slightly hipped roofs

Highly decorative windows divided into linear bands

Strong horizontal lines

Prairie style single-family residence

SPANISH COLONIAL REVIVAL

Synonymous with California architecture, the Spanish Colonial Revival style dates from 1915-1940. The style is commonly seen in Riverside's older residential neighborhoods and is represented in the Fox Theater and portions of the Mission Inn, among other historical and architecturally significant structures in the City. Spanish styling is characterized by stucco exteriors and red tile roofs, with an occasional arched opening. More elaborate examples incorporate decorative elements of wood, wrought iron, or plaster; extensive use of terra cotta and tile; and balconies and patios integrated into plans. In its simplest form, the elements that typify this style include:

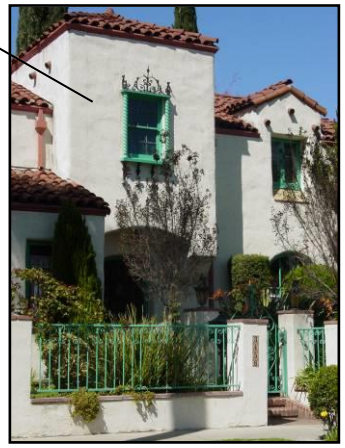
- Low-pitched, barrel clay tile roofs
- One or more prominent arches placed above doors, principal windows, and/or porch openings
- Walls with stucco surface

The Fox Theater

Low-pitched barrel clay tile roofs

Smooth stucco surface

Spanish Colonial Revival single-family residence



Prominent arches

Spanish Colonial Revival commercial building

CALIFORNIA MONTEREY REVIVAL

As its name suggests, the Monterey architectural style emerged in Monterey, California in the 1830s. Deriving from Spanish Colonial architecture in California, typical features include:

- Simple two-story masses
- Projecting second story balcony made of wood spanning all or most of the building façade, covered by the principle gabled roof of wood shake or clay tile and cantilevered or supported by wood posts from below
- Exterior treatments include plaster or stucco with occasional wood siding on the second story and wood shutters equal in width to the size of the multi-paned windows

Smooth stucco surface

Clay tile roof

Monterey Revival single-family residence

Projecting second-floor balcony made of wood

COLONIAL REVIVAL

The Colonial Revival style is a broad category of varying architecture seen in the United States from the late nineteenth century to early twentieth century. Specific styles associated with Colonial Revival include Turn-of-the-Century, American Foursquare, Neoclassical, and Dutch Colonial. Widely popular from 1920 to 1925 and seen frequently in older Riverside neighborhoods, the Colonial Revival Bungalow was typically a one-story side-gabled, wood-sided residence, with central entrances often treated as gabled porticos, and symmetrical fenestration. Elements that typify the general style include:

- Rectangular one or two-story symmetrical masses with gable or hipped roof
- Classical prominent porch or gabled portico entrance, sometimes with pediment and square or rounded columns
- Exterior treatments include narrow clapboard siding with occasional wood shutters equal in width to the size of the multi-paned windows

Colonial Revival single-family residence

Prominent porch with rounded columns

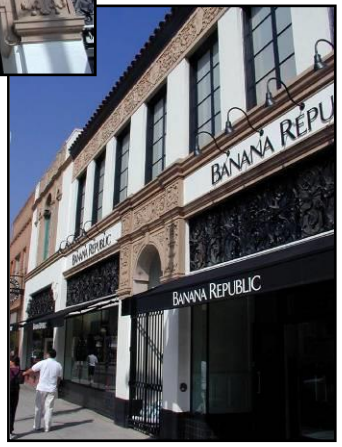
MEDITERRANEAN/ ITALIAN RENAISSANCE REVIVAL

This category combines similar yet distinctive architectural styles. Deriving from Spanish Colonial Revival, Italianate, and Mission styles, Mediterranean/Italian Renaissance provides an eclectic harmony of architectural elements, including:

- Symmetrical façades with smooth stucco surfaces, decorative balconies, and ceramic tile roofs
- Arched entries accented by small classical columns or pilasters
- Window style and size between first and second floors vary, but fenestration is proportional

Arched entry

Decorative balcony



Mediterranean/Italian Renaissance Revival

Decorative window moldings

TUDOR REVIVAL

This eclectic style of late medieval English architecture seen in the United States from the late nineteenth century to the middle twentieth century features, leaded glass windows, openings detailed like Gothic arches, chimneys of exaggerated heights, and the use of brick and stone for all or part of the exterior. Typical features include:

- Steeply pitched, wood shake/shingle roofs
- Exterior façade treatments include brick with portions half-timbered, use of leaded glass windows, Gothic arches, and massive, decorative chimneys

Tudor Revival single-family residence

Half-timbering

ART DECO/ MODERNE

This style of architecture was popular in the 1920s to 1940s, especially for commercial, industrial, and institutional buildings. While Art Deco style involves more heavy ornamentation with decorative elements such as symbols, icons and reliefs, the Art Deco and Moderne styles are usually typified by:

- Asymmetrical façades with smooth stucco wall surfaces and flat roofs
- Use of ornamental elements such as horizontal or vertical grooves, lines, zigzags and other geometric and stylized motifs.

Geometric and stylized motif carvings

Vertical lines

Art Deco commercial frontage

POST-WWII MODERN/ INTERNATIONAL

This simple style of architecture, developed and made popular in early twentieth century Europe by architects such as Le Corbusier and Ludwig Mies van der Rohe and made regionally famous with such residential applications by Joseph Eichler, includes features as modular designs, executed in metal, glass or other materials, with bands of windows, flat roofs, and open floor plans. A more simplified residential interpretation of this style, commonly known as Ranch or Post-World War II Modern, was heavily used in 1950-60s suburban housing tracts. This style found locally prevalent among office, business park, and industrial settings includes such typical features as:

- Simple asymmetrical compositions and plain cubic forms with flat or low-pitched roofs
- Major building materials comprised of metal, concrete and glass framework
- Exterior treatments include unadorned façades finished with smooth stucco or concrete with clear to opaque glass windows comprising much of the façade area

Post WWII Modern single-family residence

Low-pitched roofs

Cubic forms with flat roofs

Heavy use of glass

Modernist/International institutional building

Riverside
Citywide Design Guidelines
Appendix C: Water Efficient Landscaping and Irrigation Design Guidelines

Adopted January 15, 2019
Resolution No. 23405
City of Riverside

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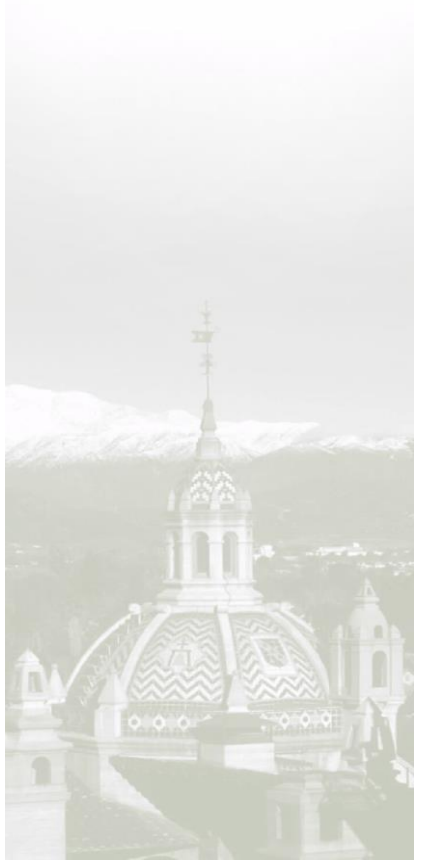
APPENDIX C: TABLE OF CONTENTS



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Appendix C: Water Efficient Landscaping and Irrigation Design Guidelines

The continuation of the City of Riverside's economic prosperity is dependent on the availability of adequate supplies of water for future uses. The City's policy is to promote the efficient use of water and to prevent the waste of this valuable resource.

Landscapes are essential to the excellent quality of life in the City. In addition to providing areas for active and passive recreation, creating visual interest and providing spatial definition, landscapes should play a vital role in enhancing the environment. Landscapes can achieve this by cleaning air and water, preventing erosion, providing low impact drainage solutions, offering fire protection, and replacing ecosystems that have been lost or damaged due to development.

An attractive and inviting landscape can improve the quality of our lives.

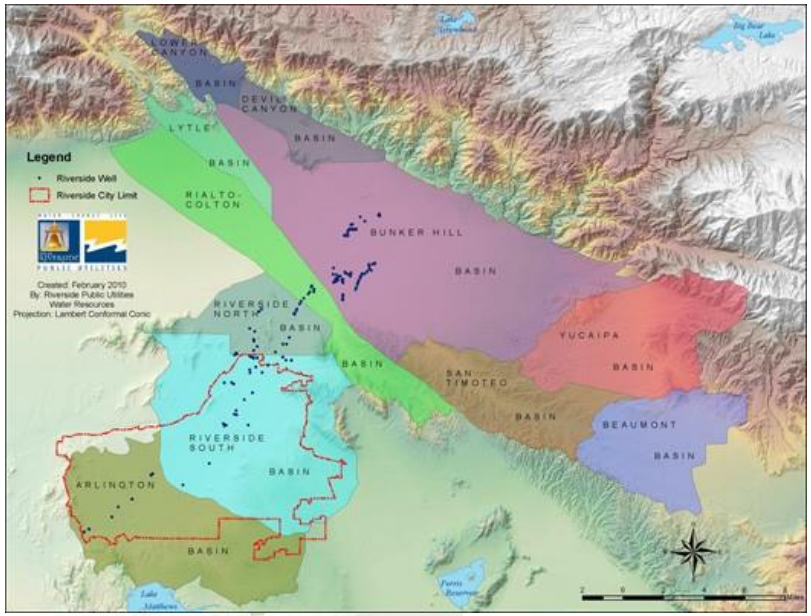
Landscape design, installation, maintenance, and management can and should be water efficient. Riverside's climate creates an opportunity to select a rich variety of plantings that are also drought-tolerant and water-efficient. The privilege to use water is limited to the amount reasonably required for the beneficial use of the community. This privilege does not extend to the unreasonable use or waste of this precious natural resource. The Zoning Code, Title 19.570 – Water Efficient Landscaping and Irrigation together, along with these Citywide Design Guidelines are intended to ensure that the City's water supply is used efficiently.

We can achieve water conservation by raising the public awareness of the need to conserve water through education, and motivation to embrace an effective water conservation program.

Creative landscape design can help restore a natural habitat disturbed by land development.

Appendix C: Water Efficient Landscaping and Irrigation Design Guidelines

Map of Water Supply Basins



Riverside's water supply begins as pure rain and snow that is naturally filtered through the sand and gravel of the Bunker Hill and Riverside Basins in San Bernardino and Riverside. This water settles in pools deep in the earth and is then tapped for domestic use by numerous wells operated by Riverside Public Utilities.

Reducing or even eliminating turf can minimize water use and, at the same time, maximize the aesthetic valve of the landscape.

Installing the most efficient irrigation management and delivery systems available can reduce your landscape irrigation water use by 50%

Reducing our Landscape Water Use

Using a climate-appropriate plant palette and water features that utilize a recirculating system can create a beautiful water-conserving landscape.

I. WHY WATER EFFICIENCY AND CONSERVATION ARE IMPORTANT

Water is a valuable natural resource, and how it is managed today will affect how accessible it will be in the future. Riverside's primary water supplies come from underground sources fed by rain and snow falling in the San Bernardino Mountains and local foothills. Riverside Public Utilities has developed an Urban Water Management Plan (www.riversidepublicutilities.com) that provides both historic and projected water use. The plan summarizes several future water supply projects and programs that will achieve near complete water independence. With this principal goal set, Riverside's water resources are exceedingly valuable and need to be resolutely protected. According to the Department of Water Resources, landscape water use typically exceeds 50% of a single residential property's total water use, making water efficient landscape design essential to preserving Riverside's water resources.

Drought is a constant element of the City and State's climate. Experts believe that the changes in rain and snowfall patterns will result in longer periods of drought in the future. Although the City of Riverside may not always be in a state of drought, it is of vital importance to increase water efficiency and conservation to help prevent the severe effects of drought. The State's population is expected to grow consistently and significantly. This increase in population will create an increase in the need for water.

The effects of these issues result in the need to reduce water usage by increasing water efficiency and conservation. The City of Riverside has established these guidelines in order to approach these issues and provide ways to accomplish water efficiency and conservation in the landscape. Riverside Public Utilities, the Western Municipal Water District, and the Eastern Municipal Water District are helping promote water efficiency and conservation by providing educational resources and offering rebates for both residential and commercial customers who participate in their many water efficiency programs such as: installing weather-based irrigation controllers, water conserving landscape designs, turf reduction and/or replacement, and high efficiency irrigation systems. These and other methods can help ensure that our water resources will be available for our City's thriving future.

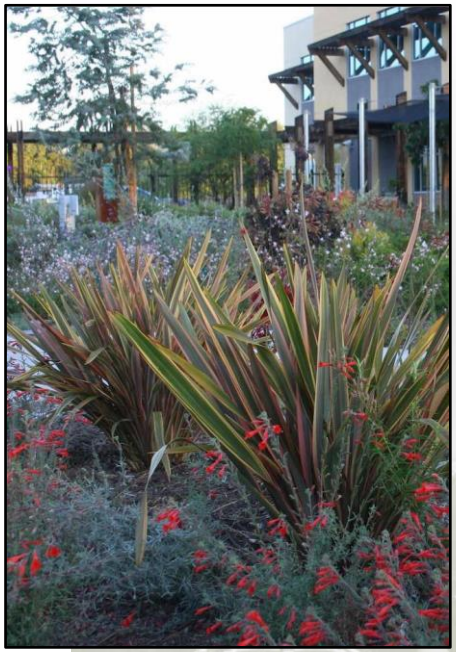
For further educational resources and possible rebate programs visit the following websites:

Riverside Public Utilities
www.riversidepublicutilities.com

Western Municipal Water District
www.wmwd.com

Eastern Municipal Water District
www.emwd.org

II. CITYWIDE WATER EFFICIENT LANDSCAPING AND IRRIGATION DESIGN GUIDELINES



These Guidelines have been established to supplement the requirements of the City's Water Efficient Landscaping and Irrigation standards, Chapter 19.570 of the Zoning Code (Title 19 of the Riverside Municipal Code) by enhancing upon and clarifying those requirements through narrative, illustrative and photographic examples of best practices in water efficient landscape design. They also serve as a guide for developers, landscape architects and other design professionals to establish well designed landscape and irrigation plans to successfully reduce water usage, increase water efficiency and promote conservation.

A. WHEN DO THE GUIDELINES APPLY?

- New construction with a total landscape area equal to or greater than 500 square feet that requires a building or landscape permit, plan check or design review.
- Rehabilitated landscape projects with a total landscape area equal to or greater than 2,500 square feet that requires a building or landscape permit, plan check or design review.
- Existing landscapes with a total landscape area over one acre that exhibit potential water inefficiency or waste may be subject to review by the water purveyor to evaluate water use and provide recommendations as necessary to achieve greater water efficiency.
- New and existing cemeteries are subject to limited sections of the Guidelines. Refer to the City's Chapter 19.570.090 for additional information.
- All public projects shall comply with these guidelines.

B. LANDSCAPE AND IRRIGATION DESIGN, REVIEW AND CERTIFICATION GUIDELINES

1. PLANTING DESIGN AND PLAN GUIDELINES

A. Climate appropriate plant material shall be selected to promote the efficient use of water. The following resources offer reference plant lists: Sunset Western Garden Book, Western Municipal Water District's at www.wmwd.com, and Riverside County Guide to California Friendly Landscaping (Landscaping Guide) at www.rctlma.com. Also, refer to Section V. of these guidelines, Climate Appropriate Plants for the City of Riverside.

B. Any plant may be selected for the landscape, providing that the water budget calculations show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of the Special Landscape Areas. Also, the Estimated Total Water Use (ETWU) must not exceed the Maximum Applied Water Allowance (MAWA). Refer to Section IV. Examples and Worksheets for additional guidance on how to calculate the ETWU and MAWA.

C. Plants shall be classified according to their water use, such as high, moderate, low and very low. These classifications shall be listed from the Water Use Classification of Landscape Species (WUCOLS), www.ucanr.edu, or from horticultural researchers with academic institutions or professional associations as approved by the California Department of Water Resources (DWR), www.water.ca.gov.

D. Plants with the same water use classification shall be grouped together in hydrozones with regard to their water, soil, sun, and shade requirements and in relationship to buildings. Refer to Section IV. Examples and Worksheets, B. Graphic Illustration of Hydrozone Areas for further clarification.

E. Hydrozones with different water needs shall be irrigated separately. Deviation from these groupings are discouraged, but shall be allowed under the following provisions.

1. Mixed hydrozones shall only consist of two proximate classifications: low mixed with moderate, moderate mixed with high.

2. Hydrozone classification shall be the plant classification of the highest water using plant. For example, if a hydrozone consists of both moderate and low water use plants, the moderate classification shall be used.

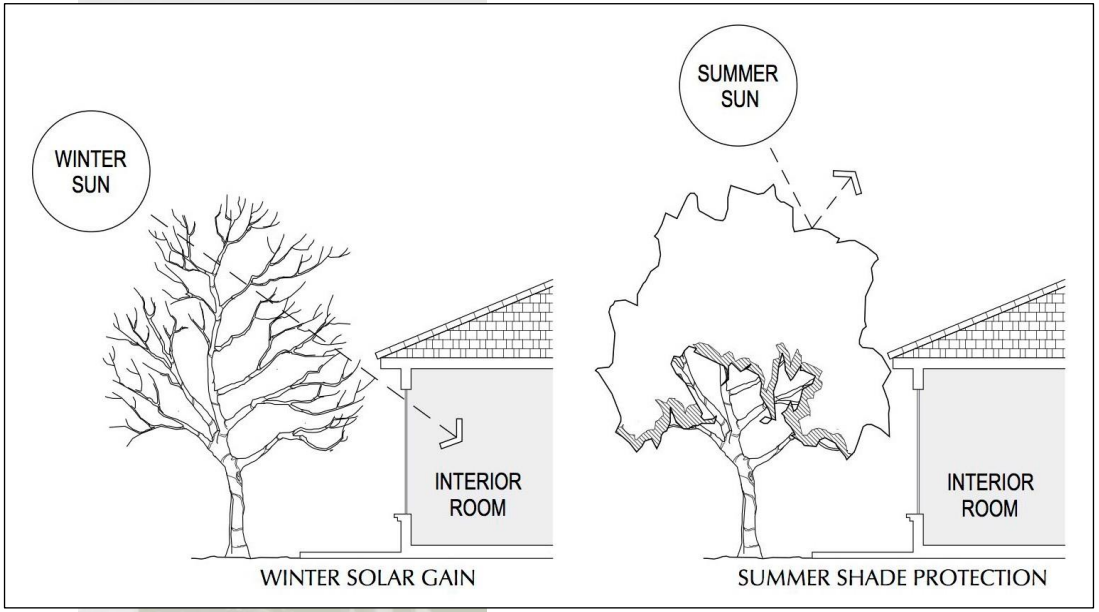
Landscapes should be designed with the various elements that affect water use in mind so that plants can be easily separated into hydrozones.

F. Trees for shade shall be provided for residential, commercial and industrial buildings, parking lots and open space areas. These trees can be deciduous or evergreen and are to be incorporated for the purpose of energy conservation and the efficient use of water.

G. Plants shall be placed in a manner considerate of solar orientation to maximize summer shade and winter solar gain.

H. To help retain soil moisture and promote plant health, all exposed soil surfaces of non-turf areas within the developed landscape area shall be mulched with a minimum three inch (3") layer of material, except in areas with groundcover planted from flats, where mulch depth shall be one and one half inches (1 ½"). In hydro-seeded areas, the mulch component of the seed-mulch slurry meets the requirement.

I. For slope conditions, mulch products shall be carefully selected to help stabilize and control soil erosion. Typically, coarse shredded mulch will knit together and resist migration. Additional stabilizing materials may be necessary on large, steep slopes.



J. Recycled or post-consumed organic mulch shall be used over inorganic or virgin materials, unless they are unavailable or prohibited by fuel modification restrictions.

K. Soil amendments shall be incorporated into the soil according to the recommendations of the soil report, and what is appropriate for selected plant material.

L. Prior to planting, any compacted soil shall be transformed to a friable or crumbly texture to provide the optimum soil condition for plant health and drainage.

A deciduous tree placed to the south or the west side of the building can provide summer shade protection and still allow winter solar gain.

M. Turf areas shall be designed to comply with the water budget and in response to functional needs, such as active play areas of parks, sports fields and golf courses.

N. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape. A 25% slope means a one foot of vertical elevation change for every four feet in horizontal length.

O. Plant selection for projects in fire-prone areas shall address fire safety and prevention. A defensible space or zone around a building or structure is required per Public Resources Code Section 4291(a) and (b). Fire-prone plant materials and highly flammable mulches shall be avoided. Refer to Riverside County Fire Department Fire Protection, www.rvcfire.com, for additional information.

For landscape design guidelines in fire-prone areas visit the following website:

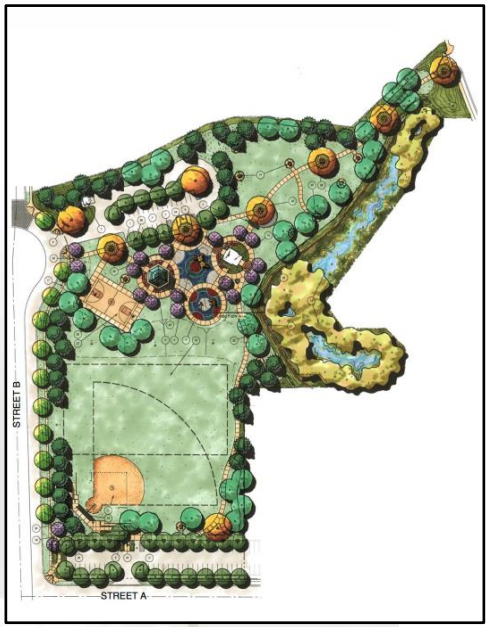
Cal Fire
www.fire.ca.gov

To review a list of California's invasive species visit the following website:

Don't Plant a Pest!
California Invasive Plant Council
www.cal-ipc.org

P. Invasive species of plants shall be avoided especially near parks, buffers, greenbelts, bodies of water, and open spaces because of their potential to cause harm to environmentally sensitive areas.

1. When a project is located in the Sycamore Canyon, Canyon Springs, Mission Grove, or Canyon Crest neighborhoods the Multiple Species Habitat Conservation Plan (MSHCP), Table 6.2, "Plants that Should be Avoided Adjacent to the MSHCP Conservation Area" shall be consulted to avoid the use of invasive plant species. The MSHCP and referenced Table 6.2 can be found at the Western Riverside County Regional Conservation Authority website, www.wrc-rca.org.



Turf areas can provide space for active plan in a park setting.

In residential projects turf can provide a small passive play area or allow high use pedestrian traffic areas.

Q. When feasible, natural vegetation and native plant species are to be preserved and protected.

R. Decorative water features shall use re-circulating water systems.

S. Pool and spa covers are highly recommended to help reduce water loss due to evaporation.

T. Recycled water shall be used where available as the source for irrigation, and decorative water features, consistent with the provisions of Zoning Code, Title 19.570.060 – Recycled Water and Municipal Code, Title 14.28 – Mandatory Use of Recycled Water.

U. Landscape areas provide numerous stormwater best management practice opportunities that encourage on-site detention and infiltration of storm water such as:

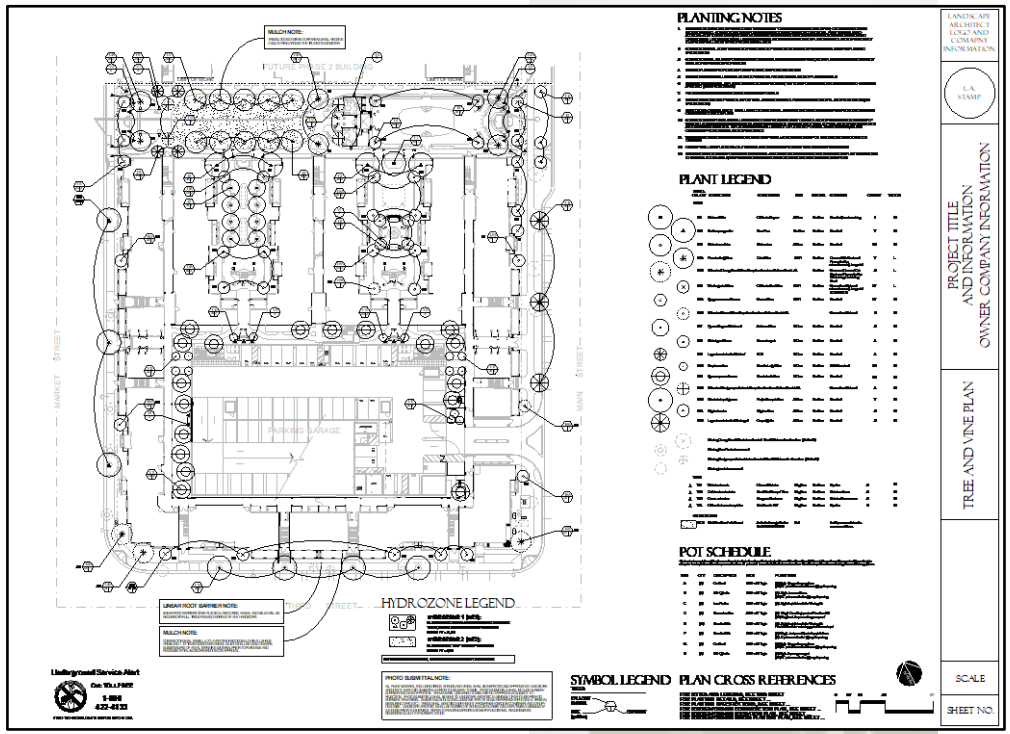
1. Infiltration beds, swales, and basins that allow water to collect and percolate into the ground,
2. Constructed wetlands and detention ponds that detain water, handle excessive flow, and filter pollutants,
3. Rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.), and
4. Permeable paving elements (e.g., permeable pavers or blocks, permeable concrete, or decomposed granite).

Swales like this dry streambed (right) and permeable paving, such as the permeable pavers and decomposed granite pathway (left), can provide design interest as well as creative drainage solutions for any type of project.

V. The following can be used as a required items checklist for the completion of the Planting Plan:

- ❑ New and existing trees, shrubs, ground covers, and turf areas within the proposed landscape area, each clearly delineated by symbol and/or callout,
- ❑ Planting legend indicating:
  - All plant species by botanical name and common name,
  - Individual plant spacing,
  - Quantities of each plant species by container size (e.g., 24" Box, 15 gallon, 4" pots, or flats), and
  - Water Use Classification of Landscape Species (WUCOLS) plant classification for each plant.
- ❑ Designation of hydrozones,
- ❑ Total area, in square feet, devoted to landscaping, and a breakdown of each area by hydrozone in square feet,
- ❑ Property lines, streets, and street names,
- ❑ Building locations, driveways, sidewalks, retaining walls, and other hardscape features,
- ❑ Appropriate scale and north arrow,
- ❑ Any special landscape areas (SLA) as defined in Section III. Definitions for Water Efficient Landscaping and Irrigation Design Guidelines,
- ❑ Type of mulch and application depth,
- ❑ Recommended soil amendments, type and infiltration rate,
- ❑ Type and surface area of any water feature,
- ❑ Identify pervious and non-pervious hardscapes,
- ❑ Type and installation details of any applicable stormwater best management practices,
- ❑ Planting specifications and details, and

Below is an example Planting Plan that illustrates the required information as outlined in this Section.



Appendix C: Water Efficient Landscaping and Irrigation Design Guidelines

- ❑ Water Efficient Landscape Worksheet. Refer to Section IV. Examples and Worksheets for provided form.

WATER EFFICIENT LANDSCAPE WORKSHEET

Reference ETo for the area **ETo=** 56.4

Estimated Total Water Use (ETWU):

ETWU is calculated using the following formula: (Eto) (.62) (ETAF) (LA) where ETWU ETAF is PF/IE

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Landscape Area	Estimated Total Water Use (ETWU) gallons/yr
Regular Landscape Areas							
HZ#							
HZ#							
HZ#							
HZ#							
HZ#							
HZ#							
				Totals	(A)	(B)	
Special Landscape Areas							
HZ#				1			
HZ#				1			
HZ#				1			
				Totals	(C)	(D)	
				Estimated Total Water Use in gallons per year, ETWU Total			
				Maximum Annual Water Allowance in gallons per year, MAWA Total			

MAWA calculation: (Eto) (.62) [(ETAFxLA) + ((1-ETAF) x SLA)] where non-residential MAWA ETAF is 0.45 and residential MAWA ETAF factor is 0.55

MAWA - ETWU= must be a positive number

ETAF Calculations:

Regular Landscape Areas

Total ETAF x Area	(B)
Total Area	(A)
Average ETAF	B / A

Average ETAF for Regular Landscape Areas must be 0.45 or below for non-residential areas and 0.55 or below for residential areas.

All Landscape Areas

Total ETAF x Area	(B+D)
Total Landscape Area (LA)	(A+C)
Sitewide ETAF	(B+D) / (A+C)

The calculation results shown in red need to meet the stated requirements for the water budget to be considered compliant.

Refer to Section IV. Examples and Worksheets for additional guidance on how to calculate the ETWU and MAWA. Also, see the City of Riverside's website, www.riversideca.gov

Water budget calculations shall be made to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of the Special Landscape Areas. Also, the Estimated Total Water Use (ETWU) must not exceed the Maximum Applied Water Allowance (MAWA).

- Maximum Applied Water Allowance (MAWA)

  The MAWA for the total landscape area is calculated as follows:

  $$MAWA \text{ (in gallons)} = (ET_O)\ (0.62)\ [(ETAF \times LA) + ((1\text{-}ETAF) \times SLA)]$$

  Where:

MAWA	*Maximum Applied Water Allowance, in gallons per year*
ET_O	*Reference Annual Evapotranspiration Rate, in inches per year is 56.4 for the City of Riverside. Refer to this Appendix, Section III. Definitions for monthly ET_O values*
0.62	*Conversion Factor, to gallons*
ETAF	*ET Adjustment Factor (ETAF) for the MAWA calculations are as follows: ETAF is 0.55 for residential areas and 0.45 for non-residential areas.*
LA	*Landscape Area including SLA, in square feet*
SLA	*Special Landscape Area (SLA), in square feet. Refer to the Definitions for additional information regarding SLA*

- Estimated Total Water Use (ETWU)

  The ETWU for each designated hydrozone is calculated as follows:

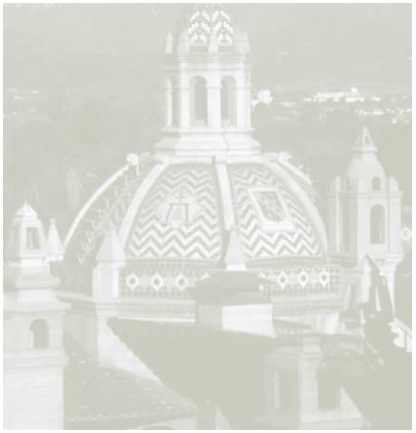
  ETWU (in gallons) = (ET_O) (0.62) (ETAF x LA)

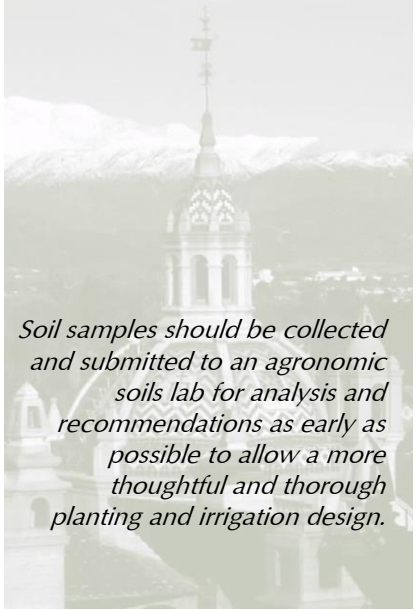
  Where:

ETWU	*Estimated Total Water Use, in gallons per year*
0.62	*Conversion Factor, to gallons*
ET_O	*Reference Annual Evapotranspiration Rate, in inches per year is 56.4 for the City of Riverside. Refer to this Appendix, Section III. Definitions for monthly ET_O values.*
PF	*Plant Factor (PF) of the hydrozone, refer to the Hydrozone Classification chart at right for the corresponding Hydrozone Plant Factor Range and Median Values* *All water features shall be included in the high water use hydrozone and temporarily irrigated areas shall be included in the low water use hydrozone*
IE	*Irrigation Efficiency (IE) of the hydrozone, refer to the Irrigation Equipment chart at right for the corresponding IE factors*
ETAF	*ET Adjustment Factor (ETAF) for the ETWU is calculated by dividing the Plant Factor (PF) by the Irrigation Efficiency factor (IE), ETAF = PF/IE* *The ETAF for SLA is 1.0, and the ETAF for existing non-rehabilitated landscapes is assumed at 0.8*
LA	*Landscape Area of each hydrozone, in square feet*
SLA	*Special Landscape Area (SLA), in square feet. Refer to the Definitions for additional information regarding SLA*

Hydrozone Classification	Hydrozone Plant Factor Range	Median Value
VL Very Low	0 – 0.1	0.1
L Low	0.1 – 0.3	0.2
M Moderate	0.4 – 0.6	0.5
H High	0.7 – 0.9	0.8

Irrigation Equipment	IE
Drip	0.81
Spray heads	0.75





i. Determining hydrozone plant factor (PF):

- When a hydrozone area contains plants with two proximate plant classifications, the plant classification of the highest water using plant shall be used.
- For most landscape situations the median numeric plant factor for each hydrozone should be selected as the PF to use in calculating the ETWU. The hydrozone can be further adjusted to the top or bottom of the designated plant factor range when taking the plant species water use needs, planting density and microclimate into consideration. For example, a densely planted hydrozone consisting of moderate plants may be determined to be at the top of the *Moderate* range, and would therefore adjust the PF up to 0.6, whereas the same hydrozone less densely planted and protected from climate factors such as sun or wind may be determined to be at the bottom of the *Moderate* range, and would therefore adjust the PF down to 0.4. Refer to Hydrozone Classification chart for hydrozone classifications, hydrozone plant factor ranges and median values.

❑ A Soil Management Report shall be obtained by the project applicant, or a designee, in order to reduce runoff and encourage healthy plant growth.

- Collect samples from multiple locations representative of the project site.
- Submit soil samples to a laboratory for analysis and recommendations. Soil sampling shall be conducted in accordance with laboratory protocols.
- Soil analysis shall include:
  - soil texture,
  - pH,
  - total soluble salts,
  - sodium,

Compost Guideline
(Sample Compost Specification)

Compost measurements shall be obtained from a STA-certified* laboratory applying TMECC** methods. Compost shall be applied at a rate of 4 cubic yards per 1000 square feet of soil and then incorporated into the soil to a depth of at least 6 inches. After application, sufficient water shall be applied to leach excess salts from the soil profile.

C:N ratio:	≤ 20:1
Organic matter:	30 – 65% dry weight (d.w.)
Salinity:	Final soil/compost mix ECe ≤ 2.5 dS/m for greenwaste compost or ≤ 4 dS/m for manure or biosolids-based composts.
Particle sizes:	95% passing through a 5/8" screen 70% passing through a 3/8" screen
Stability:	≤ 8 mg CO2/g OM/day (TMECC 05-05-A), lower values preferred
Maturity:	80% emergence (TMECC 05-05-A), higher values preferred.
pH:	between 6.0 and 8.5, neutral values preferred.
Contaminants:	Total ≤ 0.5% dw; film plastic ≤ 0.1% dw, less is preferred.
Pathogens:	Fecal coliforms < 1,000 MPN per g dw; *Salmonella* sp. < 3 MPN per 4 g dw.
Metals:	Meet 14 CCR § 17868.2 requirements.

* STA – US Composting Council Seal of Testing Assurance
**TMECC - Test Methods for the Examination of Composting & Compost

    - percent organic matter, and
    - recommendations
- The soils analysis report shall estimate infiltration of the site.
- In projects with multiple landscape installations (i.e. production home developments) a soil sampling rate of 1 in 7 lots or approximately 15% of lots.
- The project applicant, or a designee, shall comply with one of the following conditions:
    - If significant mass grading is not planned, the soil analysis report shall be submitted to the local agency as part of the Landscape Documentation Package, or
    - If significant mass grading is planned and not yet performed, the soil analysis report shall be submitted to the local agency as part of the Certificate of Compliance.
- Soil analysis report shall be made available, in a timely manner, to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.
- The project applicant, or a designee, shall submit documentation verifying implementation of soil analysis report recommendations to the City with the Certificate of Completion.

Soil amendments can be homogeneously incorporated to the recommended soil depth by hand or by equipment, whichever is appropriate for the given project.

W. Planting Plans and Irrigation Plans shall be drawn at the same size and attain adequate scale so that the plan information and text are easily read.

X. The Planting Plan shall contain the following statement: "I have complied with the criteria of the City's Chapter 19.570, Water Efficient Landscaping and Irrigation, and applied them for the efficient use of water in the landscape design plan."

Y. The Planting Plan shall be prepared, wet-stamped, and signed by a landscape architect as defined in this Section III. Definitions for Water Efficient Landscaping and Irrigation Design Guidelines. Any plans submitted without the signature of a California licensed landscape architect shall not be accepted for review.

Proper irrigation design and ongoing maintenance can eliminate over-spray onto sidewalks and structures.

2. IRRIGATION DESIGN AND PLAN GUIDELINES

A. Irrigation systems shall be designed to allow for proper installation, management, and maintenance of water efficient irrigation equipment to ensure the highest level of conservation.

B. All irrigation systems shall be designed to prevent runoff, over-spray, lowhead drainage and other similar conditions where water flows off-site onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscape areas, roadways, or structures.

C. Recycled water irrigation systems shall be used whenever possible. In some cases, the irrigation system shall be designed for the future use of recycled water. Refer to Municipal Code, Title 14.28 – Mandatory Use of Recycled Water.

D. Water systems designed to utilize recycled water shall be designed, and specify required irrigation equipment, to meet all applicable standards of the California Regional Water Quality Control Board, the Riverside County Health Department, and the water purveyor.

E. Graywater systems promote the efficient use of water and may assist in on-site landscape irrigation.

F. Dedicated water service meters are required for non-residential irrigated landscapes over 1,000 square feet. For residential irrigated landscapes of 5,000 square feet or more a dedicated water service meter, private meter, or sub-meter is required.

G. Static water pressure at the system point of connection shall be determined at the design stage. If the static water pressure is not available at the design stage, it shall be verified at the time of installation.

H. Dynamic or operating water pressure shall be calculated using the peak water demand of the irrigation system.

I. Automatic irrigation controllers utilizing either evapotranspiration, or soil moisture sensor data with non-volatile memory, shall be required for irrigation scheduling in all irrigation systems.

J. The installation of pressure regulating devices such as in-line pressure regulators, booster pumps, or other devices are required when the static pressure is below or significantly above the required dynamic pressure to operate each irrigation emission device or to properly operate the irrigation system.

K. It is highly recommended that an inquiry be made to the local water purveyor about peak water operating demands on the water supply system.

L. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation should be avoided during windy or freezing weather or during rain.

M. Manual shut-off valves, such as a gate valve, ball valve, or butterfly valve, shall be required and shall be installed as close as possible to the point of connection of the water supply to minimize water loss in case of an emergency (such as a mainline break) or routine repair.

N. Backflow prevention devices shall be required to protect the water supply from contamination by the irrigation system. The project applicant shall refer to applicable public health agency codes for additional backflow prevention requirements.

O. Flow sensors that detect high flow conditions created by system damage or malfunction are required for all non-residential landscapes and residential landscapes of 5,000 square feet or more.

P. Master shut-off valves are required on all projects except landscapes that make use of technologies that allow for the individual control of sprinklers that are individually pressurized in a system equipped with low pressure shut down features.

Q. All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICC 802-2014.

Soil sensors allow irrigation management by monitoring the available moisture within the plant root zone.

Weather sensors work with smart controllers by using real-time weather measurements of temperature, rainfall, wind, humidity and solar radiation.

Properly installed swing joints can protect irrigation head breakage that results in high volume run off.

R. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.

S. Sprinkler heads and other emission devices operating on the same control valve shall have matched precipitation rates.

T. Relevant information from the soil management plan, such as soil type and infiltration rate, shall be utilized when designing the irrigation system.

U. Swing joints, or other riser-protection components, are required on all risers subject to damage that are adjacent to hardscapes or in high traffic areas of turfgrass.

V. Check valves or anti-drain valves are required on all sprinkler heads where low point drainage could occur.

W. Head to head coverage is recommended. However, sprinkler spacing shall be designed to achieve the highest possible distribution uniformity using the manufacturer's recommendations.

X. Long, narrow, or irregularly shaped planting areas including turf that is less than ten (10) feet in width in any direction shall be irrigated with subsurface irrigation or other means that produce no run-off or overspray.

Y. Sloped planting areas greater than 25% (4:1) shall not be irrigated with a precipitation rate exceeding 0.75 inches per hour. This restriction may be modified if the landscape designer submits an alternative design or technology, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the irrigation audit.

Z. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include drip, drip line, or other low flow non-spray technology. The setback area may be planted or unplanted. If left unplanted the surfacing of the setback may be mulch, gravel, or other porous material.

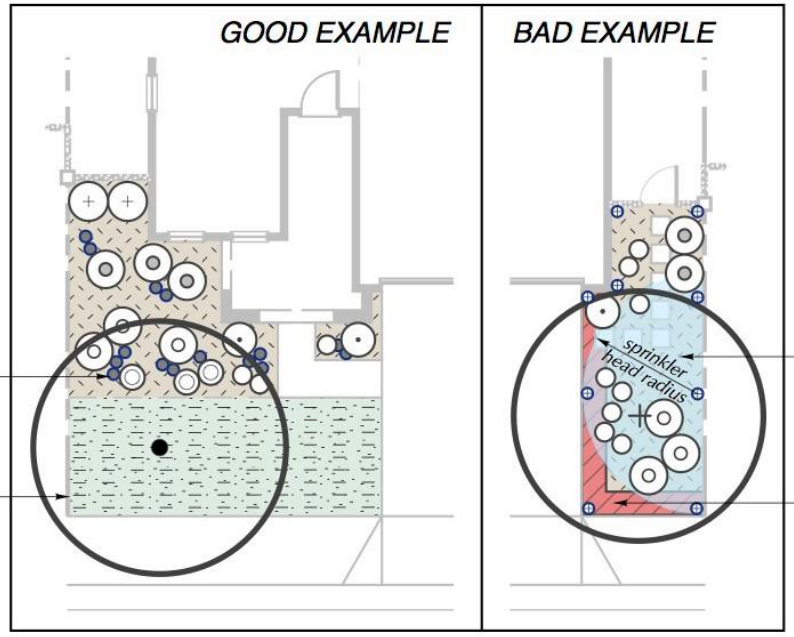
These restrictions may be modified if:

1. The landscape area is adjacent to permeable surfacing and no runoff occurs,
2. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping, or
3. The irrigation designer specifies an alternative design or technology, as part of the submittal, and clearly demonstrates strict adherence to the irrigation design plan requirements. Prevention of overspray and runoff must be confirmed during the irrigation audit.

Subsurface drip line irrigation can be used for a wide variety of planting situations. It is one option for narrow parkways or a planted 24"setback area from non-permeable surfaces.

Low volume emitters placed within the shrub root zone maximizes irrigation efficiency.

Sub-surface drip irrigation in the turf area complies with the prohibited overhead irrigation within the 24" setback area.

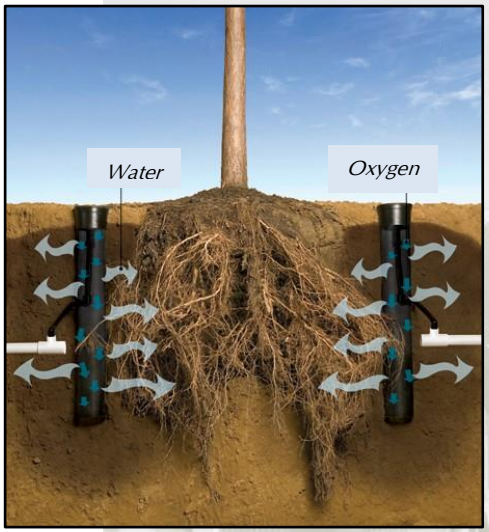


Overhead irrigation, such as sprinkler heads, installed in a sparsely planted landscape results in inefficient water management by applying water to non-planted areas.

Overhead irrigation is not allowed within the 24" setback area of any non-permeable surface (setback area shown in red) as it can create overspray and water run-off situations.

The irrigation requirements of trees vary by species and where they are located in the landscape. They will benefit from being on a separate valve from other surrounding plant material.

By using root irrigation devices (see below), water and oxygen are provided directly to the root zone promoting healthy plant growth.



AA. Hydrozones:

1. Each valve shall irrigate a hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.
2. Overhead spray heads, drip emitters or other irrigation emission devices shall be selected based on what is appropriate for the plant type within that hydrozone.
3. Where feasible, trees shall be placed on separate valves from shrubs, groundcover, and turf to allow the watering requirements of the trees to be addressed apart from the surrounding plant material.

BB. The following can be used as a required items checklist for the completion of the Irrigation Plan:

- ❑ Location and size of water meter(s), service laterals, and backflow preventers,
- ❑ Location, size, and type of all components of the irrigation system, including but not limited to automatic controllers, sensors, main and lateral lines, valves, sprinkler heads and nozzles, pressure regulator, drip and low volume irrigation equipment,
- ❑ Irrigation point of connection (POC) to the water system,
- ❑ Static water pressure at POC,
- ❑ The areas irrigated by each valve, with valve notation, size and related gpm (gallons per minute) clearly shown,
- ❑ Hydrozones:
  - Number, letter or other notation shall designate each hydrozone,
  - A Hydrozone Information Table shall be prepared to include each hydrozone. At a minimum, the table shall include hydrozone notation, type of irrigation equipment, hydrozone classification (low, moderate or high) and related square footage,
- ❑ Irrigation legend shall site the following:
  - Manufacturer name, model number, and general description for all specified irrigation devices,
  - Separate symbols for all irrigation devices with different spray patterns, spray radius, drip flow rates, drip emitter and line spacing, and precipitation rates,

- Flow rates in gallons per minute (gpm) and/or gallons per hour (gph), and design operation pressure in pounds per square inch (psi) for each irrigation device,
- Precipitation or Application rate in inches per hour (in/hr) for each irrigation device,

❑ Irrigation system details for assembly and installation, and

❑ Irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. The following criteria shall be used to develop the irrigation schedules:

- Irrigation schedules shall be regulated by an automatic controller using current reference Et_o data or soil moisture sensor data.
- Overhead irrigation shall be scheduled between the hours of 6:00 p.m. and 10:00 a.m. In weather conditions such as wind, rain, or freezing temperatures, overhead irrigation should not be operated. If the local purveyor has imposed stricter watering restrictions, those shall apply.
- Irrigation schedules shall be developed and submitted for each of the following conditions:
  - Plant establishment,
  - Established landscape, and
  - Temporarily irrigated areas.
- Each irrigation schedule shall consider for each station all of the following that apply:
  - Irrigation interval,
  - Irrigation run times,
  - Number of cycle starts required to avoid run-off,
  - Total monthly applied water,
  - Application rate of irrigation device,
  - Soil type, organic matter status, and related infiltration rate,
  - Root and plant depth,

Soil type affects the rate at which water is absorbed into the ground. The more porous the soil, the higher infiltration rate it will have. Composts can improve infiltration into heavy and/or clay soils while improving soil water-holding capacities.

The infiltration rate (in/hr) of the site soil is to be compared to the application rate (in/hr) of the irrigation devise. This is to ensure that the applied water will be absorbed into the ground rather than creating wasteful run-off.

Sand
Extremely porous
Allows quick water flow

Loam
Porous
Retains moisture
Optimal soil type

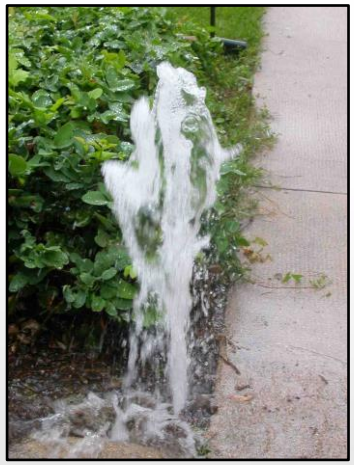
Clay
Non-porous
Slow to absorb and drain water

- Slope factor,
- Shade or sun factor, and
- Irrigation uniformity or efficiency.

CC. Planting Plans and Irrigation Design Plans shall be drawn at the same size and scale.

DD. The Irrigation Plan shall contain the following statement: "I have complied with the criteria of the City's Chapter 19.570, Water Efficient Landscaping and Irrigation, and applied them for the efficient use of water in the irrigation design plan."

EE. The Irrigation Design Plan shall be prepared, wet-stamped, and signed by a California licensed landscape architect or certified irrigation designer, as defined in Section III. Definitions for Water Efficient Landscaping and Irrigation Design Guidelines.



Simple repairs and keeping shrubs clear of irrigation devices can prevent unnecessary water waste.

3. LANDSCAPE AND IRRIGATION MAINTENANCE SCHEDULE

It is critical to properly maintain the landscape and irrigation to achieve the optimum level of water efficiency.

A. A regular maintenance schedule shall be prepared and submitted with the Certificate of Compliance to the Planning Department, property owner, and water purveyor (if applicable). This regular maintenance schedule is intended to be continuously implemented for the life of the project.

B. A regular maintenance schedule shall include, but not be limited to the following:

1. Routine inspections, auditing, adjustments, and repair of the irrigation system and its components,
2. Aerating and de-thatching of turf areas,
3. Topdressing with compost,
4. Replenishing mulch,
5. Fertilizing, and

Fertilizers can be added by hand over the planting area with a hand spreader.

A fertigation device can be used to provide a liquid fertilizer through irrigation lines

6. Pruning and weeding in all landscape areas and removing any obstructions to irrigation devices.

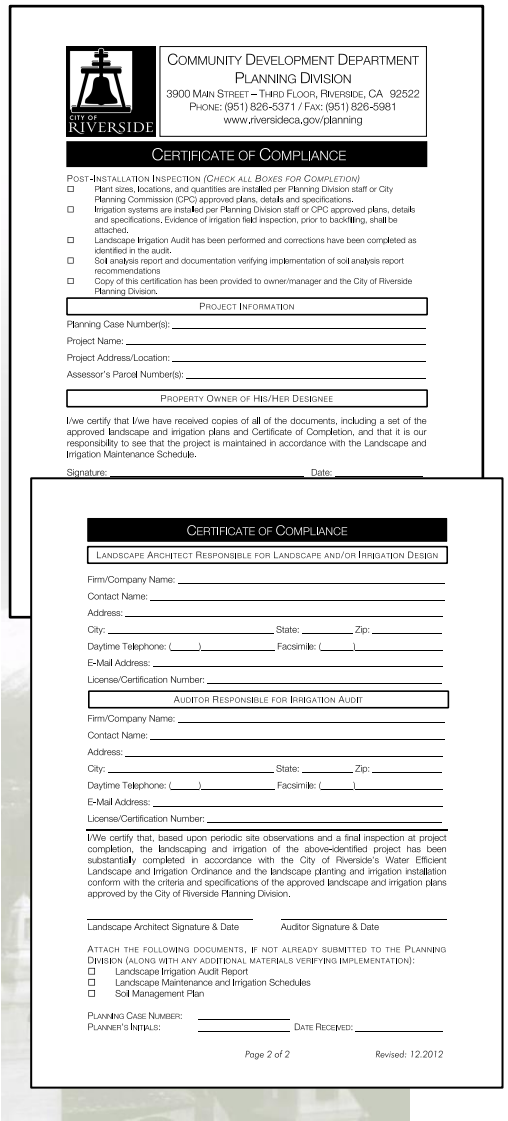
C. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents or with components with greater efficiency.

D. A project applicant or owner is encouraged to implement established landscape industry sustainable Best Practices or environmentally friendly practices for all landscape maintenance activities.

4. CERTIFICATE OF COMPLIANCE

A. Prior to issuance of a Certificate of Occupancy or final inspection for a project subject to this Appendix and the Zoning Code, Title 19.570 – Water Efficient Landscaping and Irrigation, a regular maintenance schedule and a Certificate of Compliance shall be submitted to the Planning Department certifying that the landscaping has been completed in accordance with the approved planting, irrigation, soil management, and grading design plans for the project. Refer to Section IV. Examples and Worksheets for provided form. The Certificate of Compliance shall include the following:

1. Detailed project and property owner information,
2. Detailed contact information and certification by either the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed landscape contractor that the landscape project has been installed per the approved Landscape Documentation Package,
   a. Where there have been significant changes made in the field during construction, "as-built" or record drawings shall be included with the certification.
   b. A diagram of the irrigation plan showing hydrozones shall be kept with the irrigation controller for subsequent management purposes.
3. Detailed contact information and certification by the Irrigation Auditor,
4. Irrigation scheduling parameters used to set the controller,
5. Landscape and irrigation maintenance schedule,
6. Soil analysis report and documentation verifying implementation of soil report recommendations, and



CITY OF RIVERSIDE

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
3900 MAIN STREET – THIRD FLOOR, RIVERSIDE, CA 92522
PHONE: (951) 826-5371 / FAX: (951) 826-5981
www.riversideca.gov/planning

CERTIFICATE OF COMPLIANCE

POST-INSTALLATION INSPECTION *(CHECK ALL BOXES FOR COMPLETION)*

- ☐ Plant sizes, locations, and quantities are installed per Planning Division staff or City Planning Commission (CPC) approved plans, details and specifications.
- ☐ Irrigation systems are installed per Planning Division staff or CPC approved plans, details and specifications. Evidence of irrigation field inspection, prior to backfilling, shall be attached.
- ☐ Landscape Irrigation Audit has been performed and corrections have been completed as identified in the audit.
- ☐ Soil analysis report and documentation verifying implementation of soil analysis report recommendations
- ☐ Copy of this certification has been provided to owner/manager and the City of Riverside Planning Division.

PROJECT INFORMATION

Planning Case Number(s): _____
Project Name: _____
Project Address/Location: _____
Assessor's Parcel Number(s): _____

PROPERTY OWNER OF HIS/HER DESIGNEE

I/we certify that I/we have received copies of all of the documents, including a set of the approved landscape and irrigation plans and Certificate of Completion, and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

Signature: _____ Date: _____

CERTIFICATE OF COMPLIANCE

LANDSCAPE ARCHITECT RESPONSIBLE FOR LANDSCAPE AND/OR IRRIGATION DESIGN

Firm/Company Name: _____
Contact Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Daytime Telephone: (____)_____ Facsimile: (____)_____
E-Mail Address: _____
License/Certification Number: _____

AUDITOR RESPONSIBLE FOR IRRIGATION AUDIT:

Firm/Company Name: _____
Contact Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Daytime Telephone: (____)_____ Facsimile: (____)_____
E-Mail Address: _____
License/Certification Number: _____

I/We certify that, based upon periodic site observations and a final inspection at project completion, the landscaping and irrigation of the above-identified project has been substantially completed in accordance with the City of Riverside's Water Efficient Landscape and Irrigation Ordinance and the landscape planting and irrigation installation conform with the criteria and specifications of the approved landscape and irrigation plans approved by the City of Riverside Planning Division.

Landscape Architect Signature & Date _____ Auditor Signature & Date _____

ATTACH THE FOLLOWING DOCUMENTS, IF NOT ALREADY SUBMITTED TO THE PLANNING DIVISION (ALONG WITH ANY ADDITIONAL MATERIALS VERIFYING IMPLEMENTATION):

- ☐ Landscape Irrigation Audit Report
- ☐ Landscape Maintenance and Irrigation Schedules
- ☐ Soil Management Plan

PLANNING CASE NUMBER: _____
PLANNER'S INITIALS: _____ DATE RECEIVED: _____

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7. Irrigation audit report that includes inspection, system tune-up, system test with distribution uniformity, and reporting of overspray or run off that causes overland flow. Refer to the Zoning Code, Title 19.570 – Water Efficient Landscaping and Irrigation, Section 19.570.050 for additional restrictions and requirements.

A certified landscape irrigation auditor shall conduct periodic and a final evaluation of the installed irrigation system by collecting field data and performing related calculations to verify that the system has been installed in accordance with the City of Riverside's Water Efficient Landscaping and Irrigation Ordinance, Zoning Code, Title 19.570

5. STORMWATER MANAGEMENT AND RAINWATER RETENTION

A. Stormwater management practices minimize runoff and increase infiltration, which recharges groundwater and improves water quality. The following elements can be incorporated into landscape projects to improve on-site stormwater and dry weather runoff capture:

1. Grade impervious surfaces, such as driveways, to drain to vegetated areas.
2. Minimize the area of impervious surfaces.
3. Incorporate pervious and porous surfaces that will minimize runoff, such as: gravel, permeable pavers, and pervious concrete.
4. Direct runoff from paved surfaces and roof areas into landscape areas to maximize site water capture.
5. Incorporate rain gardens, cisterns and other rain catchment systems.
6. Incorporate infiltration landscape areas, swales, basins and drywells to provide opportunities for percolation into the soil.
7. Consider constructed wetlands and ponds that retain water, equalize excess flow, and filter pollutant.
8. Increase soil organic matter using quality compost.

Signs help illustrate the applied water efficient landscape principles utilized in the landscape. In this case, the sign calls attention to a rainwater harvesting system installed to help conserve

6. PUBLIC EDUCATION

A. Education is a critical component to promote and ensure the efficient use of water in landscapes. The use of appropriate principles of design, installation, management and maintenance that save water is encouraged in the community.

1. The City of Riverside offers several informative and illustrative landscape and irrigation design resources, as well as rebate programs, for the efficient use of water in both the residential and commercial landscape. Please visit the following website for directed guidance:

   - City of Riverside at www.riversideca.gov
   - Riverside Public Utilities at www.riversidepublicutilities.com
   - GreenRiverside at www.greenriverside.com
   - Western Municipal Water District at www.wmwd.com
   - Eastern Municipal Water District at www.emwd.org

2. In addition to the websites listed above, the following are good resources for water conservation landscape ideas and selecting climate appropriate plant material:

   - Sunset Western Garden Book
   - Western Municipal Water District's plant list at www.wmwd.com and their link to Inland Empire Waterwise Gardening at www.wmwd.watersavingplants.com
   - Riverside County Guide to California Friendly Landscaping (Landscaping Guide) at www.rctlma.com
   - Water Saving - Garden Friendly, Inland Empire at www.watersavinggardenfriendly.com
   - Metropolitan Water District of Southern California's Be Water Wise at www.bewaterwise.com
   - Also, refer to Section V. of these guidelines, Climate Appropriate Plants for the City of Riverside.

WATER | ENERGY | LIFE

CITY OF RIVERSIDE PUBLIC UTILITIES

The City of Riverside and Riverside Public Utilities will continue to make every effort to assist in the design and plan preparation process. From the home-owner looking to rehabilitate his front lawn area to the experienced landscape architect developing a large scale mixed-use project, there are resources available through the many agencies and related websites listed here.

III. DEFINITIONS FOR WATER EFFICIENT LANDSCAPING AND IRRIGATION DESIGN GUIDELINES

Applied Water	The portion of water supplied by the irrigation system to the landscape.
Automatic Irrigation Controller	A timing device used to remotely control valves that operate an irrigation system. Automatic irrigation controllers are able to self-adjust and schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.
Backflow Prevention Devise	A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
Best Management Practices	The methods or techniques found to be the most effective and practical in achieving an objective while making the optimum use of available resources.
Certificate of Compliance	The form and related documents required under this Appendix, Section II., B., 4.– Certificate of Compliance.
Certified Irrigation Designer	A person certified to design irrigation systems by an accredited academic institution, a professional trade organization, or other program such as the US Environmental Protection Agency's WaterSense irrigation designer certification program and Irrigation Association's Certified Landscape Irrigation Designer program.
Certified Landscape Irrigation Auditor	A person certified to perform landscape irrigation audits by an accredited academic institution, a professional trade organization, or other program such as the US Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.
Check valve or Anti-Drain Valve	A valve located under a sprinkler head, or other location in the irrigation system, to hold water in the system to prevent drainage from sprinkler head when the sprinkler is off.

Compost	The safe and stable product of controlled biologic decomposition of organic materials that is beneficial to plant growth.
Controller	See Automatic Irrigation Controller
Conversion Factor (0.62)	The number that converts acre-inches per acre per year to gallons per square foot per year.
Distribution Uniformity	The measure of the uniformity of irrigation water over a defined area.
Deciduous Tree or Shrub	A plant that sheds or loses foliage during a specific season or stage of growth.
Defensible Space	The natural and landscaped area around a structure that has been designed and maintained to reduce fire danger.
Dynamic Water Pressure	The measure of water pressure, in pounds per square inch (psi), while the irrigation system is in operation. Also see Operating Pressure.
Drip Irrigation	Any non-spray low volume irrigation system utilizing emission devices with a flow rate measured in gallons per hour. Low volume irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.
Ecological Restoration Project	A project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
Effective Precipitation or Usable Rainfall (EPPT)	The portion of total precipitation that becomes available for plant growth.
Emitter	A drip irrigation emission device that delivers water slowly from the system to the soil.
Established Landscape	The time at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.
Establishment Period of the Plants	The first year after installing the plants in the landscape or the first two two years if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth. Native habitat mitigation areas and trees may need three to five years for establishment.

Estimated Total Water Use (ETWU)	The total estimated annual water used for the landscape as described in Section II. B. 1. Planting Design and Planting Guidelines.
ET Adjustment Factor (ETAF)	The factor used to calculate the Maximum Annual Water Allowance (MAWA) is 0.55 for residential areas and 0.45 for non-residential areas, that, when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape. The ETAF used to calculate the Estimated Total Water Used (ETWU) for new and existing (non-rehabilitated) Special Landscape Areas (SLA) shall not exceed 1.0 and for existing non-rehabilitated landscapes shall be assumed as 0.8.
Evapotranspiration Rate (ETo)	The quantity of water evaporated from adjacent soil and other surfaces and transpired by plants during a specified time. The monthly and annual evapotranspiration rate for the City of Riverside is as follows:

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	ANNUAL Eto
2.5	2.9	4.2	5.3	5.9	6.6	7.2	6.9	5.4	4.1	2.9	2.6	56.4

Evergreen Tree or Shrub	A plant that retains foliage throughout all of the seasons.
Flow Rate	The rate at which water flows through pipes, valves, and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.
Flow Sensor	An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. Flow sensors must be connected to an automatic irrigation controller, or flow monitor capable of receiving flow signals and operating master valves. This combination flow sensor/controller may also function as a landscape water meter or submeter.
Friable	A soil condition that is easily crumbled or loosely compacted down to a minimum depth per planting material requirements, whereby the root structure of newly planted material will be allowed to spread unimpeded.

Fuel Modification Plan Guideline	A guideline from a local fire authority to assist residents and businesses that are developing land or building structures in a fire hazard severity zone.
Graywater	Untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. Graywater includes, but is not limited to, wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers. Health and Safety Code Section 17922.12.
Hardscapes	Any durable material (pervious and non-pervious).
Homeowner-provided Landscaping	Any landscaping either installed by a private individual for a single-family residence or installed by a licensed contractor hired by a homeowner. A homeowner, for the purposes of this Appendix, is a person who occupies the dwelling he or she owns. This excludes speculative homes, which are not owner-occupied dwellings.
Hydrozone	A portion of the landscaped area having plants with similar water needs. A hydrozone may be irrigated or non-irrigated.
Infiltration Rate	The rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).
Invasive Plant Species	A species of plants, not historically found in California, which spread outside cultivated areas and can damage environmental or economic resources. Invasive species may be regulated by County agricultural agencies as noxious species. Noxious weeds means any weed designated by the Weed Control Act and identified on a Regional District noxious weed control list. Lists of invasive plants are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.
Irrigation Audit	An in-depth evaluation of the irrigation system performance conducted by a Certified Landscape Irrigation Auditor. An irrigation audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting overspray or runoff that causes overland flow, and preparation of an irrigation

	schedule. The audit must be conducted in a manner consistent with the Irrigation Association's Landscape Irrigation Auditor Certification program or other U.S. Environmental Protection Agency "WaterSense" labeled auditing program.
Irrigation Efficiency (IE)	The measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. For these guidelines, the irrigation efficiency is 0.75 for overhead spray devices and 0.81 for drip systems.
Irrigation Survey	An evaluation of an irrigation system that is less detailed than an irrigation audit. An irrigation survey includes, but is not limited to: inspection, system test, and written recommendations to improve performance of the irrigation system.
Irrigation Water Use Analysis	An analysis of water use data based on meter readings and billing data.
Landscape Architect	A person who holds a license to practice landscape architecture in the State of California per the Business and Professions Code, Section 5615.
Landscape Area	All the planting areas, turf areas, and water features in a landscape design plan subject to the Maximum Applied Water Allowance calculation. The landscape area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel, or stone walks, other pervious or non-pervious hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).
Landscape Contractor	A person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.
Landscape Documentation Package	The documents required under Section II. B. Landscape and Irrigation Design, Review, and Certification Guidelines.
Landscape Project	The total area of landscape in a project as defined in "landscape area" for the purposes of this Appendix.
Landscape Water Meter	An inline device installed at the irrigation supply point that measures the flow of water into the irrigation system and is connected to a totalizer to record water use.

Lateral Line	The water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
Local Agency	The City of Riverside is responsible for adopting and implementing these guidelines. The local agency is also responsible for the enforcement of the related ordinance, including but not limited to, approval of a permit and plan check or design review of a project.
Local Water Purveyor	Any entity, including a public agency, city, county, or private water company that provides retail water service.
Low Volume Irrigation	The application of irrigation water at low pressure through a system of tubing or lateral lines and low-volume emitters such as drip, drip lines, and bubblers. Low volume irrigation is specifically designed to apply small volumes or water slowly at or near the root zone of plants.
Main Line	The pressurized pipeline that delivers water from the water sources to the valve or outlet.
Master Shut-Off Valve	An automatic valve installed at the irrigation supply point that controls water flow into the irrigation system. When this valve is closed water will not be supplied to the irrigation system. A master valve will greatly reduce any water loss due to a leaky station valve.
Maximum Applied Water Allowance (MAWA)	The upper limit of annual applied water for the established landscape area as outlined in Section II., B. Landscape and Irrigation Design, Review, and Certification Guidelines. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscape area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including recreation areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens, and areas irrigated with recycled water are subject to the MAWA with an ETAF not to exceed 1.0. MAWA = (ETo) (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)].
Median	An area between opposing lanes of traffic that may be unplanted or planted with trees, shrubs, perennials, and ornamental grasses.

Microclimate	The climate of a small, specific area that may contrast with the climate of the overall landscape area due to factors such as wind, sun exposure, plant density, or proximity to reflective surfaces.
Mined-land Reclamation Projects	Any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
Mulch	Any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.
New Construction	For the purposes of this Appendix, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.
Non-Potable Water	See Recycled Water, Reclaimed Water, or Treated Sewage Effluent Water.
Operating Pressure	The pressure at which the parts of an irrigation system are designed by the manufacturer to operate.
Overhead Sprinkler Irrigation Systems	An irrigation system that delivers water through the air (e.g., spray heads and rotors).
Overspray	The irrigation water that is delivered beyond the target area.
Parkway	The area between a sidewalk and the curb or traffic lane. It may be planted or unplanted, and with or without pedestrian egress.
Permit	An authorizing document issued by local agencies for new construction or rehabilitated landscapes.
Pervious	Any surface or material that allows the passage of water through the material and into the underlying soil. Examples of pervious paving materials include, but are not limited to permeable concrete, porous asphalt, paving stones and decomposed granite.

Plant Factor (PF)	A factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this Appendix, Plant factor range: Very low water use 0 to 0.1 Low water use 0.1 to 0.3 Moderate water use 0.4 to 0.6 High water use 0.7 to 1.0 Plant factors cited in this Appendix are derived from the publication "Water Use Classification of Landscape Species". Plant factors may also be obtained from horticultural researchers from academic institutions or professional associations as approved by the California Department of Water Resources (DWR).
Potable Water	Water that has been tested and possibly treated to be safe for human consumption.
Precipitation Rate	The rate of application of water measured in inches per hour
Project Applicant	The individual or entities submitting a Landscape Documentation Package to request a permit, plan check, or design review from the local agency. A project applicant may be the property owner or his or her designee.
Rain Sensor or Rain Sensing Shutoff Device	A component that automatically suspends an irrigation event when it rains.
Record or As-Built Drawings	A set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.
Recreational Area	Areas, excluding private single family residential areas, designated for active play, recreation or public assembly in parks, sports fields, picnic grounds, amphitheaters or golf course tees, fairways, roughs, surrounds and greens.
Recycled Water, Reclaimed	Treated or recycled wastewater of a quality suitable for non-potable

Water or Treated Sewage Effluent Water	uses such as landscape irrigation and water features. This water is not intended for human consumption.
Reference Evapotranspiration or ETo	A standard measurement of environmental parameters that affect the water use of plants. ETo is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the Maximum Applied Water Allowances so that regional differences in climate can be accommodated. The annual reference ETo for the City of Riverside is 56.4.
Rehabilitated Landscape	A re-landscaping project that requires a permit, plan check, or design review, and where the modified landscape area is equal to or greater than 2,500 square feet.
Residential Landscape	Any landscapes surrounding single or multi-family homes.
Run-off	Water that is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a slope.
Smart Controller	See Automatic Irrigation Controller
Solar gain	The increase in temperature in a space or structure that results from solar radiation.
Soil Moisture Sensing Device or Soil Moisture Sensor	A device that measures the amount of water in the soil. The device may also suspend or allow an irrigation event.
Soil Texture	The classification of soil based on its percentage of sand, silt, and clay.
Special Landscape Area (SLA)	An area of the landscape dedicated solely to edible plants, recreational areas, areas irrigated with recycled water, or water features using recycled water.
Sprinkler or Spray Head	A device that delivers water through a nozzle.
Static Water Pressure	The measure of the municipal pipeline water supply pressure, in pounds per square inch (psi), when water is not flowing.
Station	An area served by one valve, or by a set of valves, that operate simultaneously.

Swing Joint	An irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline, to allow movement in any direction and to prevent equipment damage.
Submeter	A metering device to measure water applied to the landscape that is installed after the primary utility water meter.
Turf	A ground cover surface of mowed grass. Annual blue grass, Kentucky blue grass, Perennial rye grass, Red fescue, and Tall fescue are cool-season grasses. Bermuda grass, Kikuyu grass, Seashore Paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass are warm-season grasses.
Valve	A device used to control the flow of water in the irrigation system.
Water Conserving Plant Species	A plant species identified as having a very low or low plant factor.
Water Feature	A design element where open water performs an aesthetic or recreational function. Water features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of water features is included in the high water use hydrozone of the landscape area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not water features and, therefore, are not subject to the water budget calculation.
Watering Window	The time of day irrigation is allowed.
WUCOLS	The Water Use Classification of Landscape Species published by the University of California Cooperative Extension, the Department of Water Resources, current edit

IV. EXAMPLES AND WORKSHEETS

A. WATER EFFICIENT LANDSCAPE WORKSHEET CALCULATIONS

Water budget calculations shall be made to show that the evapotranspiration adjustment factor (ETAF) for the landscape project does not exceed a factor of 0.55 for residential areas and 0.45 for non-residential areas, exclusive of the Special Landscape Areas. Also, the Estimated Total Water Use (ETWU) must not exceed the Maximum Applied Water Allowance (MAWA).

MAXIMUM APPLIED WATER ALLOWANCE (MAWA)

MAWA (in gallons) = (Eto)(0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]

Where:

ETo= Annual Reference Evapotranspiration Rate, in inches per year
Annual ETo for the City of Riverside is 56.4

0.62= Conversion Factor, to gallons

ETAF= For the MAWA, ET Adjustment Factor (ETAF), is 0.55 for residential areas, and 0.45 for non-residential areas

LA= Total Landscape Area including SLA, in square feet

SLA= Special Landscape Area, in square feet

Hydrozone Classification	Hydrozone Plant Factor Range	Median Value
VL Very Low	0 – 0.1	0.1
L Low	0.1 – 0.3	0.2
M Moderate	0.4 – 0.6	0.5
H High	0.7 – 0.9	0.8

Irrigation Equipment	IE
Drip	0.81
Spray heads	0.75

ESTIMATED TOTAL WATER USE (ETWU)

ETWU (in gallons) = (Eto)(0.62) (ETAF) (LA)

Where:

ETo= Annual Reference Evapotranspiration Rate, in inches per year
Annual ETo for the City of Riverside is 56.4

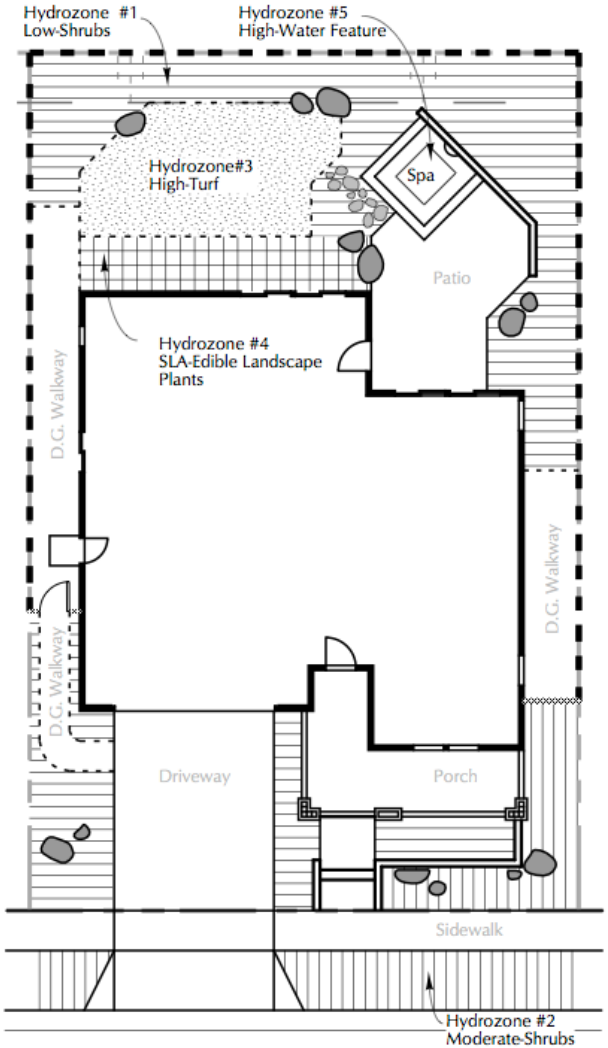
0.62= Conversion Factor, to gallons

ETAF= For the ETWU, ET Adjustment Factor (ETAF), is the Plant Factor (PF) of the Hydrozone divided by the Irrigation Efficiency (IE), PF/IE

PF= Plant Factor of the Hydrozone, refer to chart at right as a guide in specifying the appropriate Hydrozone Plant Factor

IE= Irrigation Efficiency, refer to chart at right as a guide in specifying the appropriate Irrigation Efficiency

The ETAF for Special Landscape Areas (SLA) shall not exceed 1.0 and the ETAF for existing, non-rehabilitated landscapes shall be assumed as 0.8



HYDROZONE AREAS

WATER EFFICIENT LANDSCAPE WORKSHEET

EXAMPLE OF RESIDENTIAL PROJECT

Reference ETo for the area **ETo=** 56.4

Estimated Total Water Use (ETWU):

ETWU is calculated using the following formula: (Eto) (.62) (ETAF) (LA) where ETWU ETAF is PF/IE

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Landscape Area	Estimated Total Water Use (ETWU) gallons/yr
Regular Landscape Areas							
HZ1 - Low Shrubs	0.2	Drip	0.81	0.25	1,010	249	8720
HZ2 - Moderate Shrubs	0.5	Drip	0.81	0.62	400	247	8634
HZ3 - High Cool Season Turf	0.8	Spray	0.75	1.07	300	320	11190
HZ5 - High Water Features	0.9	-	0.81	1.11	64	71	2487
						0	0
						0	0
				Totals	1,774	887	
Special Landscape Areas							
HZ4 - Edible planting				1	150	150	5245
				Totals	150	150	

Estimated Total Water Use in gallons per year, ETWU Total	36276
Maximum Annual Water Allowance in gallons per year, MAWA Total	39363

MAWA calculation: (Eto) (.62) [(ETAFxLA) + ((1-ETAF) x SLA)]
where non-residential MAWA ETAF is 0.45
and residential MAWA ETAF factor is 0.55

MAWA - ETWU= **3087**
must be a positive number

ETAF Calculations:

Regular Landscape Areas

Total ETAF x Area	887
Total Area	1,774
Average ETAF	**0.50**

Average ETAF for Regular Landscape Areas must be 0.45 or below for non-residential areas and 0.55 or below for residential areas.

All Landscape Areas

Total ETAF x Area	1037
Total Landscape Area (LA)	1,924
Sitewide ETAF	0.54

The calculation results shown in red need to meet the stated requirements for the water budget to be considered compliant.

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WATER EFFICIENT LANDSCAPE WORKSHEET

Reference ETo for the area **ETo=** 56.4

Estimated Total Water Use (ETWU):

ETWU is calculated using the following formula: (Eto) (.62) (ETAF) (LA) where ETWU ETAF is PF/IE

Hydrozone # / Planting Description	Plant Factor (PF)	Irrigation Method	Irrigation Efficiency (IE)	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Landscape Area	Estimated Total Water Use (ETWU) gallons/yr
Regular Landscape Areas							
HZ#							
HZ#							
HZ#							
HZ#							
HZ#							
HZ#							
				Totals			
Special Landscape Areas							
HZ#				1			
HZ#				1			
HZ#				1			
				Totals			
					Estimated Total Water Use in gallons per year, ETWU Total		
					Maximum Annual Water Allowance in gallons per year, MAWA Total		

MAWA calculation: (Eto) (.62) [(ETAFxLA) + ((1-ETAF) x SLA)]
where non-residential MAWA ETAF is 0.45
and residential MAWA ETAF factor is 0.55

MAWA - ETWU= must be a positive number

ETAF Calculations:

Regular Landscape Areas

Total ETAF x Area	0
Total Area	0
Average ETAF	

Average ETAF for Regular Landscape Areas must be 0.45 or below for non-residential areas and 0.55 or below for residential areas.

All Landscape Areas

Total ETAF x Area	
Total Landscape Area (LA)	
Sitewide ETAF	

CITY OF RIVERSIDE

COMMUNITY DEVELOPMENT DEPARTMENT
PLANNING DIVISION
3900 MAIN STREET – THIRD FLOOR, RIVERSIDE, CA 92522
PHONE: (951) 826-5371 / FAX: (951) 826-5981
www.riversideca.gov/planning

CERTIFICATE OF COMPLIANCE

POST-INSTALLATION INSPECTION *(CHECK ALL BOXES FOR COMPLETION)*

- ☐ Plant sizes, locations, and quantities are installed per Planning Division staff or City Planning Commission (CPC) approved plans, details and specifications.
- ☐ Irrigation systems are installed per Planning Division staff or CPC approved plans, details and specifications. Evidence of irrigation field inspection, prior to backfilling, shall be attached.
- ☐ Landscape Irrigation Audit has been performed and corrections have been completed as identified in the audit.
- ☐ Soil analysis report and documentation verifying implementation of soil analysis report recommendations
- ☐ Copy of this certification has been provided to owner/manager and the City of Riverside Planning Division.

PROJECT INFORMATION

Planning Case Number(s): _____

Project Name: _____

Project Address/Location: _____

Assessor's Parcel Number(s): _____

PROPERTY OWNER OF HIS/HER DESIGNEE

I/we certify that I/we have received copies of all of the documents, including a set of the approved landscape and irrigation plans and Certificate of Completion, and that it is our responsibility to see that the project is maintained in accordance with the Landscape and Irrigation Maintenance Schedule.

Signature: _____ Date: _____

Property Owner of Record (PRINT NAME): _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime Telephone: (_____)_____ Facsimile: (_____)_____

E-Mail Address: _____

CERTIFICATE OF COMPLIANCE

LANDSCAPE ARCHITECT RESPONSIBLE FOR LANDSCAPE AND/OR IRRIGATION DESIGN

Firm/Company Name: _____

Contact Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime Telephone: (_____)_____ Facsimile: (_____)_____

E-Mail Address: _____

License/Certification Number: _____

AUDITOR RESPONSIBLE FOR IRRIGATION AUDIT

Firm/Company Name: _____

Contact Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime Telephone: (_____)_____ Facsimile: (_____)_____

E-Mail Address: _____

License/Certification Number: _____

I/We certify that, based upon periodic site observations and a final inspection at project completion, the landscaping and irrigation of the above-identified project has been substantially completed in accordance with the City of Riverside's Water Efficient Landscape and Irrigation Ordinance and the landscape planting and irrigation installation conform with the criteria and specifications of the approved landscape and irrigation plans approved by the City of Riverside Planning Division.

_____ _____

Landscape Architect Signature & Date Auditor Signature & Date

ATTACH THE FOLLOWING DOCUMENTS, IF NOT ALREADY SUBMITTED TO THE PLANNING DIVISION (ALONG WITH ANY ADDITIONAL MATERIALS VERIFYING IMPLEMENTATION):

- ☐ Landscape Irrigation Audit Report
- ☐ Landscape Maintenance and Irrigation Schedules
- ☐ Soil Management Plan

PLANNING CASE NUMBER: _____

PLANNER'S INITIALS: _____ DATE RECEIVED: _____

V. CLIMATE-APPROPRIATE PLANTS FOR THE CITY OF RIVERSIDE

The following list is provided as a guide to selecting climate-appropriate plants for the landscape. Plant species not shown can be considered but should be evaluated using the same criteria illustrated on the provided list.

ESTIMATED PLANT CLASSIFICATION CATAGORY

The estimated plant classification information was obtained from Water Use Classification of Landscape Species (WUCOLS IV) and can be used to select and group plants into homogeneous hydrozones such as High (H), Moderate (M), Low (L) and Very Low (VL). Additionally, these classifications shall be used to determine the hydrozone plant factor (PF) involved in calculating the Estimated Total Water Use (ETWU). Refer to this Appendix, Section II., 1., P. (13)(b) – Estimating Total Water Use (ETWU) for further information.

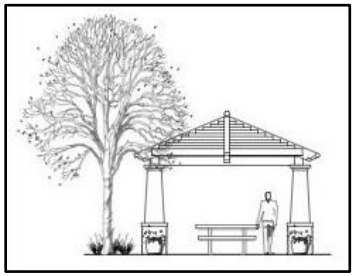
NATIVE SPECIES CATEGORY

By utilizing native plant species in the landscape we can introduce California's natural beauty and diversity. Some added benefits of landscaping with native plants can be lowering the required water use and maintenance. Natives also encourage beneficial wildlife and insects that will reduce the need for harmful pesticides.

Blue-Eyed Grass

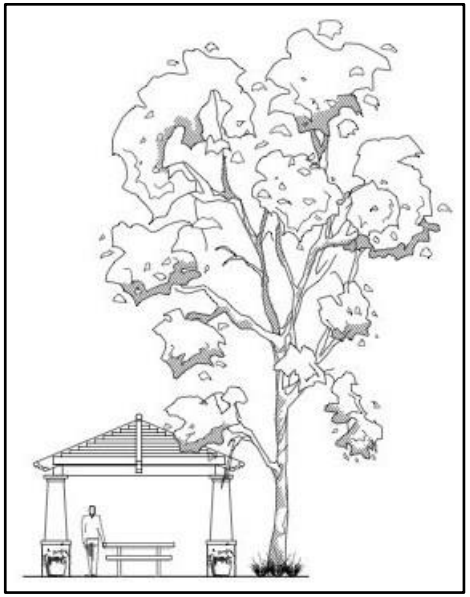
Purple Needlegrass

MATURE HEIGHT AND WIDTH CATAGORIES



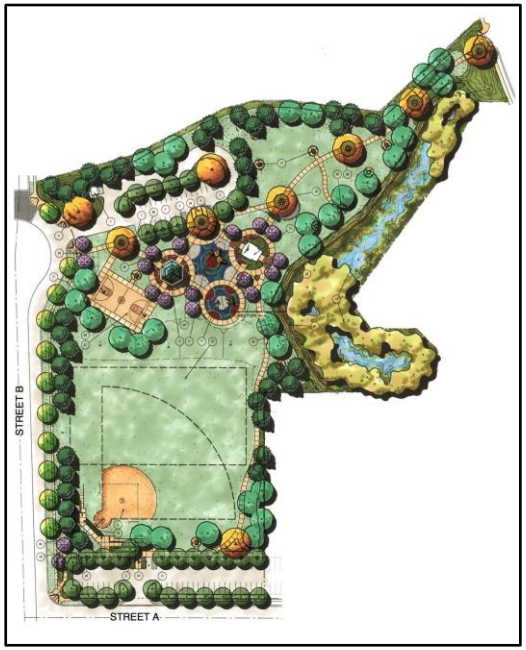
The mature height and mature width information was obtained from several reputable sources and should be used to select the appropriately sized tree, shrub, groundcover or vine that is in scale with the project.

Tree selected compliments the picnic structure and is in scale.



Tree selected is too tall and out of scale with the picnic structure.

PLANTING AREA CATAGORIES



Large Planting Areas of 25′ or more:

This category includes large open landscape such as: parks, multi-family residential common open spaces and large slope areas. In some cases, large residential lots can consist of large planting areas.

Medium Planting Areas between 6′ and 25′:

Medium sized planting areas consist of a wide range of landscape settings. This category includes building foundation planting areas found in commercial and industrial sizes, as well as, most residential landscapes.

Small Planting Areas between 2′ and 6′:

Small scale landscapes can be defined as areas that have limiting boundaries such as, parkways, medians and parking lot planter islands. Plants appropriate for border landscape areas can also be found within this category.

INVASIVE PLANTS

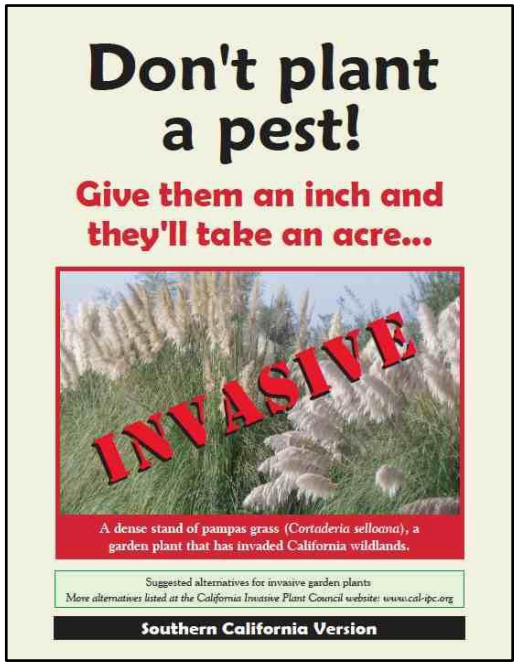
California Invasive Plant Council

Cal-IPC

California Invasive Plant Council

Invasive species are a leading threat to biodiversity. By using invasive plants there is a potential that they may overtake natural plant communities in our local environment. They can also negatively impact the native wildlife in sensitive ecosystems. They impede our ability to enjoy Riverside's most beautiful landscapes, both aesthetically and recreationally.

Refer to the California Invasive Plant Council's (Cal-IPC) website at www.cal-ipc.org for a current list of known and potentially invasive plants to avoid using in the landscape. Cal-IPC's 'Don't Plant a Pest' program and information can also be found on the website listed above. This program can assist in selecting appropriate alternatives to undesirable invasive plant species.



Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
TREES								
Acacia baileyana	Bailey acacia	L		20-30 ft.	20-40 ft.	x	x	
Acacia cultriformis	knife acacia	L		10-15 ft.	10-15 ft.		x	
Acacia farnesiana (see Vachellia farnesiana)								
Acacia longifolia	Sydney golden wattle	L		20 ft.	20 ft.		x	
Acacia pendula	weeping acacia	M		25 ft.	15 ft.		x	x
Acacia stenophylla	eumong/shoestring acacia	L		30 ft.	20 ft.		x	x
Acacia willardiana	palo blanco	L		20 ft.	10 ft.		x	x
Aesculus californica	California buckeye	L	●	10-20 ft.	30 ft.	x	x	
Afrocarpus gracilior (Podocarpus gracilior)	African fern pine	M		20-60 ft.	10-20 ft.	x	x	
Agonis flexuosa	peppermint tree	L		25-35 ft.	15-30 ft.		x	x
Albizia julibrissin	silk tree	L		40 ft.	40 ft.	x		
Aloe spp.	aloe	L	■	varies			x	x
Arbutus 'Marina'	Marina arbutus	M		25-30 ft.	25-35 ft.	x	x	
Arbutus unedo	strawberry tree	L		8-35 ft.	8-35 ft.		x	
Arecastrum romanzoffianum (see Syagrus romanzoffiana)								
Bauhinia variegata (purpurea)	purple orchid tree	M		20-35 ft.	20-35 ft.		x	
Brachychiton acerifolius	flame tree	M		60-70 ft.	30 ft.	x	x	
Brachychiton discolor	Queensland lace bark	M		40-60 ft.	30 ft.	x	x	
Brachychiton populneus	bottle tree	L		30-50 ft.	30 ft.	x	x	
Brahea armata	blue hesper palm	L		20-40 ft.	12-25 ft.		x	x
Brahea edulis	Guadalupe palm	L	●	30 ft.	15 ft.		x	x
Butia odorata (Butia capitata)	pindo palm	L		10-20 ft.	10-15 ft.		x	
Callistemon citrinus	bottle brush	L		10-15 ft.	10-15 ft.		x	
Callistemon viminalis	weeping bottle brush	M		20-30 ft.	15 ft.	x	x	
Calodendrum capense	cape chestnut	M		20-40 ft.	20-40 ft.	x	x	
Cassia leptophylla	gold medallion tree	M		20-25 ft.	30 ft.	x		
Catalpa speciosa	western catalpa	M		40-60 ft.	20-40 ft.	x	x	
Cedrus atlantica	Atlas cedar	M		60 ft.	30 ft.	x		
Cedrus deodora	deodar cedar	M		80 ft.	40 ft.	x		
Ceiba speciosa (Chorisia speciosa)	floss silk tree	L		30-60 ft.	30-60 ft.	x		
Celtis occidentalis	common hackberry	M		40-50 ft.	40-50 ft.	x		
Ceratonia siliqua	carob	L		20 ft.	20 ft.	x		

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Cercidium (see Parkinsonia)								
Cercis occidentalis	western redbud	L	●	10-18 ft.	10-18 ft.		x	
Chamaerops humilis	Mediterranean fan palm	L		20 ft.	20 ft.		x	x
Chilopsis linearis	desert willow	L	●	15-30 ft.	10-20 ft.		x	
Chitalpa tashkentensis	chitalpa	L		20-30 ft.	20-30 ft.	x	x	
Chorisia speciosa (see Cieba speciosa)								
Cinnamomum camphora	camphor tree	M		50 ft.	60 ft.	x		
Citrus spp.	orange, lemon etc.	M		varies				
Cordyline australis	New Zealand cabbage tree	M		20-30 ft.	10 ft.			
Corymbia citriodora (Eucalyptus citriodora	lemon scented gum	M		45-90 ft.	15-45 ft.	x		
Corymbia ficifolia (Eucalyptus ficifolia)	red flowering gum	M		25-40 ft.	25-40 ft.	x	x	
Cotinus coggygria	smoke tree	L		12-15 ft.	12-15 ft.		x	x
Cupaniopsis anacardioides	carrotwood	M		40 ft.	30 ft.	x	x	
Cupressus arizonica ssp. arizonica	Cuayamaca cypress	L		40 ft.	20 ft.	x	x	
Cupressus sempervirens	Italian cypress	L		60 ft.	5-10 ft.		x	x
Dracaena draco	dragon tree	L		20 ft.	30 ft.		x	
Elaeocarpus decipiens	Japanese blueberry tree	-		30-60 ft.	20-30 ft.	x	x	
Eriobotrya deflexa	bronze loquat	M		15-30 ft.	15-30 ft.		x	x
Erythrina coralloides	naked coral tree	M		30 ft.	30 ft.	x	x	
Erythryna x bidwillii	Bidwell's coral tree	M		24-30 ft.	24-30 ft.	x	x	
Eucalyptus camaldulensis	red gum	L		60-100 ft.	40-60 ft.	x		
Eucalyptus citriodora (see Corymbia citriodora)								
Eucalyptus ficifolia (see Corymbia ficifolia)								
Eucalyptus nicholii	Nichol's willow leaf peppermint	M		30-40 ft.	20-30 ft.	x	x	
Eucalyptus polyanthemos	silver dollar gum	L		30-75 ft.	15-45 ft.	x		
Eucalyptus sideroxylon	red iron bark	L		50-100 ft.	40-60 ft.	x		
Eucalyptus torquata	coral gum	M		18-36 ft.	15-30 ft.		x	
Eucalyptus viminalis	manna gum	M		40-120 ft.	50 ft.	x		
Ficus carica	edible fig	M		15-30 ft.	15-30 ft.		x	
Ficus microcarpa	Indian laurel fig/ laurel fig	M		25-30 ft.	35-40 ft.	x		
Ficus microcarpa 'Green Gem"	green gem ficus	M		20-30 ft.	20-30 ft.	x		
Ficus rubiginosa	rusty leaf fig	M		20-50 ft.	30-50 ft.	x		
Fraxinus augustifolia 'Raywood'	raywood ash	M		20-30 ft.	25 ft.	x		

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Fraxinus velutina	Arizona ash	M	●	30 ft.	30-40 ft.	x		
Geijera parviflora	Australian willow	M		25-30 ft.	20 ft.		x	
Ginkgo biloba	maiden hair tree	M		35-50 ft.	15-25 ft.	x	x	
Gleditsia triacanthos	honey locust	L		35-70 ft.	25-35 ft.	x		
Hymenosporum flavum	sweet shade	M		12-40 ft.	9-20 ft.		x	x
Jacaranda mimosifolia	jacaranda	M		25-40 ft.	15-30 ft.	x		
Jubaea chilensis	Chilean wine palm	M		50-60 ft.	25 ft.		x	
Juglans c. californica	Southern California black walnut	L	●	15-30 ft.	15-30 ft.		x	
Juniperus scopulorum 'Tolleson's'	Tolleson's juniper	M		20 ft.	10 ft.		x	
Koelreuteria bipinnata	Chinese flame tree	M		20-40 ft.	20-40 ft.	x	x	
Koelreuteria paniculata	golden rain tree	L		20-35 ft.	20-40 ft.	x	x	
Lagerstroemia indica and hybrids	crape myrtle	M		varies			x	
Lagerstroemia fauriei	Japanese crape myrtle	M		20-30 ft.	20-30 ft.		x	
Laurus nobilis 'Saratoga'	sweet bay	L		12-40 ft.	12-40 ft.	x	x	
Leptospermum laevigatum	Australian tea tree	L		10-30 ft.	10-30 ft.	x	x	
Ligustrum lucidum	glossy privet	M		20-40 ft.	20-40 ft.		x	
Lophostemon confertus	Brisbane box	M		35-40 ft.	25 ft.	x	x	
Magnolia grandiflora	southern magnolia	M		80 ft.	60 ft.	x		
Magnolia x soulangiana	saucer magnolia	M		25 ft.	25 ft. +		x	
Magnolia stellata	star magnolia	M		10 ft.	20 ft.		x	x
Malus spp.(edible)	apple	M	■	varies			x	
Maytenus boaria	mayten tree	M		30-50 ft.	30-50 ft.		x	
Melaleuca linariifolia	flax leaf paper bark	L		20-30 ft.	20-25 ft.		x	
Melaleuca nesophila	pink melaleuca	L		15-20 ft.	15-20 ft.		x	
Melaleuca quinquinervia	cajeput tree	M		20-40 ft.	15-25 ft.	x	x	
Nolina recurvata (Beaucarnea recurvata)	bottle palm	L		12-15 ft.	9-12 ft.		x	
Olea europaea	olive	L		25-30 ft.	25-30 ft.	x		
Parkinsonia aculeata	Mexican palo verde/ Jerusalem thorn	L		15-30 ft.	15-30 ft.		x	
Parkinsonia florida (Cercidium)	blue palo verde	VL	●	35 ft.	30 ft.	x	x	
Parkinsonia microphyllum (Cercidium)	little leaf palo verde	L	●	20 ft.	20 ft.		x	
Parkinsonia praecox (Cercidium)	palo brea tree	L		20 ft.	20 ft.		x	
Phoenix canariensis	Canary Island date palm	L		60 ft.	50 ft.	x		
Phoenix dactylifera	date palm	L		80 ft.	20-40 ft.	x	x	

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Phoenix reclinata	Senegal date palm	M		20-30 ft.	20-30 ft.		x	
Phoenix roebelenii	pigmy date palm	M		6-10 ft.	6-8 ft.			x
Pinus eldarica	afghan pine	L		30-80 ft.	15-25 ft.	x	x	
Pinus canariensis	Canary Island pine	M		50-80 ft.	20-35 ft.	x	x	
Pinus coulteri	Coulter pine	L	●	30-60 ft.	25-40 ft.	x	x	
Pinus halepensis	Aleppo pine	L		30-60 ft.	20-40 ft.	x		
Pinus pinea	Italian stone pine	L		40-80 ft.	40-60 ft.	x		
Pistacia chinensis	Chinese pistache	M		30-60 ft.	30-50 ft.	x	x	
Pittosporum undulatum	victorian box	M		30-40 ft.	30-40 ft.	x	x	
Platanus racemosa	California sycamore	M	●	30-80 ft.	20-50 ft.	x		
Platanus wrightii	Arizona sycamore	M		80 ft.	55 ft.	x		
Platanus x acerifolia	London plane	M		40-80 ft.	30-40 ft.	x		
Podocarpus henkelii	long leaf yellow wood	M		30-50 ft.	15-20 ft.		x	
Podocarpus gracilior (see Afrocarpus gracilior)								
Populus fremontii	western cottonwood	M	●	40-60 ft.	30 ft.	x		
Populus nigra 'Italica'	Lombardy poplar	M		40-100 ft.	15-30 ft.	x		
Prosopis chilensis	Chilean mesquite	L		30 ft.	30 ft.	x	x	
Prunus spp. (ornamental)	flowering plum	M	■	varies			x	
Punica granatum	pomegranate	L		varies			x	x
Pyrus calleryana cultivars	Callery pear	M		varies			x	
Pyrus kawakamii	evergreen pear	M		15-30 ft.	15-30 ft.		x	
Quercus agrifolia	coast live oak	L	●	20-70 ft.	20-80 ft.	x		
Quercus douglasii	blue oak	L	●	30-50 ft.	40-70 ft.	x		
Quercus engelmannii	mesa oak	L	●	40-50 ft.	70-80 ft.	x		
Quercus ilex	holly oak	L		30-60 ft.	30-60 ft.	x	x	
Quercus suber	cork oak	L		30-60 ft.	30-60 ft.	x		
Quercus virginiana	southern live oak	M		40-80 ft.	60-100 ft.	x		
Rhaphiolepis 'Majestic Beauty'	majestic beauty	M		15-20 ft.	8-10 ft.		x	x
Rhus lancea	African sumac	L		20-30 ft.	20-35 ft.		x	
Robinia x ambigua 'Purple Robe'	locust	L		40 ft.	30 ft.	x		
Sambucus spp.	elderberry	L	■	varies			x	
Sapium sebiferum	Chinese tallow tree	M		30-40 ft.	25-30 ft.		x	
Schinus molle	California pepper tree	L		25-40 ft.	25-40 ft.	x	x	

Climate-Appropriate Plants for the City of Riverside

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Schinus terebinthefolius	Brazilian pepper tree	M		30 ft.	30 ft.		x	
Sequoiadendron giganteum	giant sequoia	M	●	60-100 ft.	30-50 ft.	x		
Sophora japonica	Japanese pagoda tree	M		50-70 ft.	50-70 ft.	x		
Strelitzia nicolai	giant bird of paradise	M		30 ft.	30 ft.		x	
Syagrus romanzoffiana	queen palm	M		50 ft.	20-25 ft.		x	
Tabebuia impetiginosa	purple or pink trumpet tree	M		25-50 ft.	25-50 ft.		x	
Thevetia thevetioides	giant thevetia	M		12 ft.	12 ft.		x	x
Tipuana tipu	tipu tree	M		20-40 ft.	30-60 ft.	x		
Trachycarpus fortunei	windmill palm	M		30 ft.	10 ft.		x	x
Tristaniopsis laurina	Water gum	M		45 ft.	30 ft.	x	x	
Ulmus parvifolia	Chinese evergreen elm	M		40-60 ft.	50-70 ft.	x		
Umbellularia californica	California bay	M	●	20-25 ft.	20-25 ft.	x		
Vachellia farnesiana (Acacia farnesiana)	sweet acacia	VL		20 ft.	15-25 ft.		x	
Vitex agnus-castus	chaste tree	M		25 ft.	25 ft.		x	
Washingtonia filifera	California fan palm	L		60 ft.	20 ft.		x	x
Washingtonia robusta	Mexican fan palm	L		100 ft.	10 ft.		x	x
Zelkova serrata	saw leaf zelkova	M		60 ft.	60 ft.	x		

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
SHRUBS								
Abelia x grandiflora	glossy abelia	M		8 ft.	5 ft.		x	
Achillea millefolium & hybrids	common yarrow	L	■	2-3 ft.	2-3 ft.		x	x
Aeonium spp.	Canary Island rose	L		varies			x	x
Agapanthus africanus	lily-of-the-Nile	M		1-2 ft.	2-3 ft.		x	x
Agapanthus orientalis	lily-of-the-Nile	M		3-5 ft.	2-3 ft.		x	x
Agave spp.	agave	L		varies		x	x	
Aloe spp.	aloe	L	■	varies		x	x	x
Alyogyne huegelii	blue hibiscus	L		5-8 ft.	5-8 ft.		x	
Anigozanthos flavidus & hybrids	kangaroo paw	L		varies			x	x
Anisacanthus spp.	desert honeysuckle	L		4 ft.	4 ft.		x	
Anisodontea scabrosa	false mallow	M		4-6 ft.	4-6 ft.		x	
Anisodontea X hypomadarum	South African mallow	M		4 ft.	4 ft.		x	
Arbutus unedo 'Compacta'	compact strawberry tree	L		6-10 ft.	5-6 ft.	x	x	
Arctostaphylos spp.	manzanita	L	■	varies		x	x	
Asparagus densiflorus 'Myers'	Myers asparagus	M		2 ft.	3-4 ft.		x	x
Asparagus densiflorus 'Sprengeri'	Sprenger asapragus	M		2-3 ft.	3-6 ft.		x	x
Aspidistra elatior	cast iron plant	M		2 ft.	2-3 ft.		x	x
Atriplex spp.	saltbush	VL	■	varies			x	
Baccharis 'Centennial'	bentennial baccharis	L	●	3 ft.	4-5 ft.	x	x	
Baileya multiradiata	desert marigold	L	●	1-1 1/2 ft.	1-2 ft.		x	x
Bambusa spp.	clumping bamboo			varies		x	x	x
Berberis spp.	barberry	L/M per species	■	varies		x	x	x
Bougainvillea spp.	bougainvillea	L		3-6 ft.	3-6 ft.	x	x	
Bouteloua curtipendula	sideoats gramma	L	●	1-2 ft.	2 ft.		x	x
Bouteloua gracilis	blue gramma	L	●	1 1/2-2 ft.	1 ft.		x	x
Buddleia marrubiifolia	wooly butterfly bush	L		5 ft.	5 ft.	x	x	
Bulbine frutescens	stalked bulbine	L		1 ft.	2-3 ft.			x
Buxus microphylla japonica	Japanese boxwood	M		4-6 ft.	4-6 ft.		x	x
Caesalpinea gilliesii	desert bird of paradise	L		10 ft.	8 ft.	x	x	
Caesalpinea mexicana	Mexican bird of paradise	L		10-12 ft.	6-8 ft.	x	x	
Caesalpinea pulcherrima	dwarf poinciana	M		10 ft.	10 ft.	x	x	
Calamagrostis spp.	feather reed	M	■	2-3 ft.	2-3 ft.		x	x

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Calliandra californica	Baja fairy duster	L	●	5 ft.	5-6 ft.		x	
Calliandra eriophylla	fairy duster	VL	●	3 ft.	4-5 ft.		x	
Calliandra haematocephala	pink powder puff	M		10 ft.	10 ft.	x		
Calliandra tweedii	Trinidad flame bush	M		6-8 ft. +	6-8 ft. +	x		
Callistemon citrinus	bottle brush	L		10-15 ft.	10-15 ft.	x		
Callistemon 'Little John'	dwarf bottle brush	L		3 ft.	3 ft.		x	x
Camellia sasanqua	sasanqua camellia	M		varies		x	x	
Campanula spp.	bell flower	M		varies				x
Carex buchanani	leatherleaf sedge	M		3 ft.	2 1/2 ft.		x	x
Carex conica	snowline sedge	M		2 ft.	2 ft.		x	x
Carex elata 'Aurea'	Bowles golden sedge	M		2 1/2 ft.	1 1/2 ft.		x	x
Carex flagallifera	New Zealand sedge	M		3 ft.	2-2 1/2 ft.		x	x
Carex morrowii expallida	Japanese sedge	M		1 ft.	1 1/2 ft.		x	x
Carex pansa	California meadow sedge	M	●	6-8 in.	1 ft.			x
Carex tumulicola	Berkeley sedge	L	●	6-8 in.	1 ft.			x
Carissa spp.	Natal plum	M		2-4 ft.	3-6 ft.		x	
Carpenteria californica	bush anemone	M	●	4-6 ft.	4-6 ft.	x	x	
Ceanothus spp.	California lilac	L	■	3-15 ft.	3-15 ft.	x	x	
Centaurea cineraria	dusty miller (cineraria)	M		1 ft.	1 ft.			x
Choisya ternata	Mexican orange	M		6-8 ft.	6-8 ft.	x	x	
Cistus spp.	rockrose	L		3-6 ft.	3-6 ft.	x	x	
Clivia miniata	Kaffir lily	M		2 ft.	2 ft.			x
Cocculus laurifolius	laurel leaf cocculus	M		25 ft.	25 ft.	x		
Convolvulus cneorum	bush morning glory	L		2-4 ft.	2-4 ft.		x	x
Coprosma x kirkii	creeping coprosma	M		1-3 ft.	4-6 ft.	x	x	
Coprosma repens	mirror plant	M		10 ft.	6 ft.	x	x	
Cordyline stricta	palm lily	M		15 ft.	6 ft.	x		
Cotoneaster congestus	Pyrenees cotoneaster	M		3 ft.	3 ft.		x	
Cotoneaster glaucophyllus	bright bead cotoneaster	M		5 ft.	5 ft.	x	x	
Cotoneaster parneyi	Parney cotoneaster	M		8 ft.	10 ft.	x		
Cotoneaster salicifolius	willowleaf cotoneaster	M		15-18 ft.	15-18 ft.	x		
Crassula spp.	crassula	L		1-4 ft.	1-4 ft.		x	x
Cuphea spp.	cuphea	M		1-3 ft.	1-3 ft.		x	x

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Cycas revoluta	sago palm	M		2-3 ft. +	4-6 ft.		x	
Dalea bicolor	dalea (bicolor)	L		8 ft.	5-6 ft.	x		
Dasylirion spp.	desert spoon	L		3-5 ft.	4-5 ft.	x	x	
Dendromecon harfordii	island bush poppy	L	●	8-20 ft.	8-20 ft.	x		
Dendromecon rigida	bush poppy	L	●	4-8 ft.	4-6 ft.	x		
Deschampsia caespitosa	tufted hairgrass	L	●	1-2 ft.	2 ft.		x	x
Dianella revoluta cultivars	flax lily	L		varies	varies	x	x	x
Dianella tasmanica	Tasmin flax lily	M		3-4 ft.	1-2 ft.		x	
Dianthus spp.	pink/carnation	M		1-1 1/2 ft.	1-1 1/2 ft.		x	x
Dietes bicolor	fortnight lily	M		2-3 ft.	3 ft.		x	
Dietes iridioides	fortnight lily	M		3-4 ft.	3-4 ft.		x	
Dodonaea viscosa 'Purpurea'	purple hopseed bush	M		10-15 ft.	10-15 ft.	x		
Dudleya spp.	dudleya, live forever	L	●	1 1/2 ft.	1-2 ft.			x
Echeveria spp.	hens and chickens	L		3-6 in.	1 1/2 ft.			x
Echinocactus spp.	barrel cactus	L	■	4 ft.	2 1/2 ft.		x	
Echinopsis spp.	torch cactus	L		4-12 in.	varies		x	x
Echium candicans	pride of Madeira	L		5-6 ft.	6-10 ft.	x		
Elaeagnus pungens	silverberry	L		10-15 ft.	10-15 ft.	x		
Elymus magellanicus (also Agropyron)	Magellan wheatgrass	M		1 1/2 ft.	1 1/2 ft.			x
Encelia californica	California encelia	L	●	3 ft.	4 ft.		x	
Encelia farinosa	brittle bush	L	●	3 ft.	4 ft.		x	
Epilobium spp. (see Zauchneria)								
Eriogonum fasciculatum	California buckwheat	L	●	1-3 ft.	4 ft.		x	
Escallonia 'Compakta'	compact escallonia	M		3 ft.	3 ft.		x	
Escallonia 'Frades'	Frades escallonia	M		5-6 ft.	5-6 ft.	x	x	
Euryops pectinatus	shrub daisy	L		3-6 ft.	3-6 ft.		x	
Feijoa sellowiana	pineapple guava	M		10-25 ft.	10-25 ft.	x		
Felicia amelloides	blue marguerite	M		1 1/2 ft.	4-5 ft.		x	
Ferocactus spp.	barrel cactus	L	■	8-9 ft.	3 ft.	x	x	
Festuca californica	California fescue	M	●	2-3 ft.	1-2 ft.		x	x
Festuca glauca	blue fescue	M		1 ft.	10 in.			x
Fouquieria splendens	ocotillo	L	●	8-25 ft.	5-10 ft.	x		
Fremontodendron spp.	flannel bush	L	●	20 ft.	12 ft.	x		

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Gaillardia x grandiflora	blanket flower	M		2-4 ft.	1 1/2 ft.		x	x
Galvesia speciosa	island bush snapdragon	L	●	3 ft.	5 ft.		x	
Gardenia spp.	gardenia	M		varies			x	
Garrya elliptica	coast silktassel	M	●	10-20 ft.	10-20 ft.	x		
Geranium 'Johnson's Blue'	Johnson's blue geranium	M		1 1/2-2 ft.	2 ft.			x
Geranium sanguineum	bloody cranesbill	M		8-18 in.	2 1/2 ft.			x
Grevillea 'Noellii'	Noel's grevillea	L		4 ft.	4-5 ft.	x	x	
Grewia occidentalis	lavender star flower	M		6-10 ft.	6-10 ft.	x		
Helictotrichon sempervirens	blue oat grass	M		2-3 ft.	2-3 ft.		x	x
Hemerocallis spp.	day lily	M		varies			x	x
Hesperaloe parviflora	red/ yellow yucca	L		3-4 ft.	3-4 ft.		x	x
Heteromeles arbutifolia	toyon	L	●	6-10 ft.	6-10 ft.	x		
Heuchera maxima	island alum root	M	●	1-2 ft.	3-4 ft.		x	x
Heuchera sanguinea	coral bells	M		1-2 ft.	1-2 ft.			x
Hibiscus rosa-sinensis	Chinese hibiscus	M		8-15 ft.	5-8 ft.	x	x	
Ilex cornuta and varieties	Chinese holly	M		varies		x	x	
Ilex vomitoria and varieties	yaupon	L		varies			x	
Imperata cylindrica 'Rubra'	Japanese blood grass	M		1-2 ft.	1 ft.			x
Iris douglasiana	Douglas iris	M	●	1 1/2-2 ft.	1-1 1/2 ft.			x
Iris spp.	bearded iris	M	■	varies			x	x
Juncus effusus	soft rush	M	●	2 1/2 ft.	2 1/2 ft.		x	
Juncus patens	California gray rush	M	●	2 ft.	2 ft.		x	
Juniperus spp.	juniper	L	■	varies		x	x	x
Justicia brandegeana	shrimp plant	M		3-4 ft.	3-4 ft.		x	
Justicia californica	chuparosa	L	●	6 ft.	6 ft.	x	x	
Kalanchoe spp.	kalanchoe, garden varieties	L		1-2 ft.	1-2 ft.		x	x
Kniphofia uvaria and hybrids	red hot poker	L		varies			x	
Lantana camara	bush lantana	L		6 ft.	6 ft.	x	x	
Lantana montevidensis and hybrids	trailing lantana	L		varies			x	
Laurus nobilis	sweet bay	L		12-40 ft.	12-40 ft.	x		
Lavandula spp.	lavender	L		2-4 ft.	2-6 ft.		x	
Lavatera assurgentiflora	tree mallow	L	●	12 ft.	12 ft.	x		
Lavatera maritima	California tree mallow	M		8 ft.	4 ft.	x		

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Leonotis leonurus	lion's tail	L		6 ft.	6 ft.	x		
Leptospermum scoparium	New Zealand tea tree (shrub varieties)	M		4-12 ft.	4-8 ft.	x		
Leucophyllum spp.	Texas ranger	L		varies		x	x	
Leymus 'Canyon Prince'	canyon prince rye	M		4 ft.	3 ft.		x	
Ligustrum japonicum and varieties	Japanese privet	M		varies		x		
Limonium perezii	statice	M		3 ft.	2-3 ft.		x	x
Liriope muscari varieties	lilyturf	M		1-1 1/2 ft.	1-2 ft.			x
Lobelia laxiflora	Mexican bush lobelia	VL		3 ft.	6 ft.	x	x	
Loropetalum chinense	fringe flower	-		6-10 ft.	6-10 ft.	x		
Mahonia aquifolium	Oregon grape	M		6 ft.	5 ft.	x	x	
Mahonia 'Golden Abundance'	golden abundance mahonia	M		6 ft.	5 ft.	x		
Mahonia nervosa	longleaf mahonia	M		2-3 ft.	3 ft.	x	x	
Mahonia nevinii	Nevin mahonia	L		6 ft.	6 ft.	x		
Melaleuca armillaris	bracelet honey-myrtle	M		12-15 ft.	15-30 ft.	x		
Mimulus aurantiacus	sticky monkey flower	L	●	4 1/2 ft.	4 1/2 ft.		x	x
Miscanthus sinensis varieties	eulalia grass	M		varies			x	
Molinia caerulea	Moor grass	-		varies			x	
Muhlenbergia capillaris	hairy awn muhly	-		3 ft. +	6 ft.	x	x	
Muhlenbergia rigens	deer grass	M	●	4 ft. +	4 ft.	x	x	
Myrsine africana	African boxwood	M		8 ft.	6 ft.	x	x	
Myrtus communis	true myrtle	M		5-6 ft.	4-5 ft.	x	x	
Nandina domestica	heavenly bamboo	M		varies			x	
Nandina spp.	compact, upright heavenly bamboo	M		4-6 ft.	3 ft.		x	
Nandina spp.	low growing heavenly bamboo	M		1-3 ft.	1-3 ft.		x	x
Nassella pulchra	feather grass	L	●	3 ft.	2 ft.		x	
Nassella tenuissima	Mexican feather grass	L		2 ft.	2-3 ft.		x	x
Nephrolepis exaltata 'Bostoniensis'	Boston fern	M		3 ft.	4 ft.		x	
Nerium oleander	oleander	L		20 ft.	12 ft.	x		
Nolina microcarpa	bear grass	VL	■	3 ft.	6 ft.	x	x	
Ophiopogon japonicus	mondo grass	M		6-8 in.	6-8 in.			x
Opuntia macrocentra	prickly pear cactus	L		4 ft.	6 ft.		x	
Opuntia microdasys	bunny ears	L		2-3 ft.	4-5 ft.		x	
Osmanthus fragrens	sweet olive	M		10 ft.	6-8 ft.	x		

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Pennisetum spp.	fountain grass (no self sowing selections)	-		varies			x	x
Penstemon hybrids	border penstemon	M	■	2-4 ft.	3 ft.		x	x
Penstemon heterophyllus varieties	penstemon	-	●	1 1/2-2 ft.	2-3 ft.		x	
Phlomis fruticosa	Jerusalem sage	L		4 ft.	4 ft.		x	
Phormium hybrids	flax	M		varies		x	x	x
Photinia x fraseri	Fraser photinia	M		15 ft.	15 ft.	x		
Pittosporum crassifolium	evergreen pittosporum	M		25 ft.	20 ft.	x		
Pittosporum tobira	mock orange	M		15 ft.	15 ft.	x		
Pittosporum tobira 'Wheelers Dwarf'	dwarf pittosporum	M		2-3 ft.	4-5 ft.		x	
Plumbago auriculata (campense)	cape plumbago	M		6 ft.	10 ft.	x		
Podocarpus macrophyllus maki	shrubby yew pine	M		8-15 ft.	2-4 ft.	x		
Prunus caroliniana	Carolina laurel cherry, compact varieties	M		10 ft.	8 ft.	x		
Prunus ilicifolia	holly leaf cherry	VL	●	10-25 ft.	10-25 ft.	x		
Prunus lyonii	Catalina cherry	L	●	15-20 ft.	15-20 ft.	x		
Punica granatum 'Nana'	dwarf pomegranate	M		3 ft.	6 ft.		x	
Pyracantha spp.	firethorn	M		4-10 ft.	4-10 ft.	x		
Rhamnus californicus	coffeeberry	L	●	15 ft.	8 ft.	x		
Rhaphiolepis spp.	Indian hawthorne	M		5 ft.	6 ft.	x	x	
Rhapis excelsa	lady palm	M		5-12 ft.	5-12 ft.	x		
Rhus integrifolia	lemonade berry	L		10 ft.	10 ft.	x		
Rhus laurina	laurel sumac		●	15 ft.	15 ft.	x		
Rhus ovata	sugar bush	L	●	10 ft.	10 ft.	x		
Ribes aureum	golden currant	L	●	6 ft.	6 ft.	x	x	
Romneya coulteri	Matilija poppy	L	●	6-8 ft.	6-8 ft.	x	x	
Rosa californica	California wild rose	L	●	3-9 ft.	3-9 ft.		x	
Rosa, bush hybrids	rose	M		varies			x	
Rosa rugosa	Ramana's rose	-		3-6 ft.	3-6 ft.		x	
Rosmarinus officinalis	rosemary, upright varieties	L		5-7 ft.	2-5 ft.		x	
Rudbeckia hirta and varieties	Gloriosa daisy	M		1-4 ft.	1 1/2 ft.		x	x
Salvia spp.	sage	L	■	varies		x	x	x
Salvia 'Dara's Choice'	Sonoma sage	L	●	2-3 ft.	3-6 ft.		x	x
Salvia 'Mrs. Beard'	Mrs. Beard sage	-	●	2-4 ft.	4-6 ft.		x	x
Salvia clevelandii & hybrids	Cleveland/Alan Chickering etc.	L	●	5 ft.	8 ft.	x	x	

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Salvia greggii & hybrids	autumn sage	L		4 ft.	4 ft.		x	
Salvia mexicana	Mexican sage	-		10 ft. +	3-5 ft.	x		
Salvia sonomensis	creeping/Sonoma sage	-	●	1 ft.	3-4 ft.		x	x
Salvia spathacea	hummingbird/pitcher sage	-	●	1-2 ft.	3-4 ft.		x	x
Sambucus spp.	elderberry	L	■	30 ft.	20 ft.	x		
Santolina spp.	lavender cotton	L		2 ft.	3 ft.		x	
Senecio cineraria	dusty miller	L		2-3 ft.	2-3 ft.		x	x
Senna artemesioides (Cassia artemesioides	feathery cassia/senna	L		5 ft.	5 ft.		x	
Senna spectabilis (Cassia excelsa)	senna/cassia (spectabilis/excelsa)	L		6 ft.	6 ft.	x		
Sesleria autumnalis	autumn moor grass	-		8-18 in.	8-18 in.		x	x
Sesleria caerulea	blue moor grass	-		6-8 in.	6-8 in.		x	x
Simmondsia chinensis	jojoba	VL	●	6 ft.	6 ft.	x		
Stachys byzantina	lamb's ears	M		1 1/2 ft.	2 ft.		x	x
Strelitzia reginae	bird of paradise	M		5-6 ft.	5-6 ft.		x	
Syzygium paniculatum varieties	Australian brush cherry	M		varies		x		
Teucrium cossonii majoricum	Majorcan germander	L		8 in.	1 1/2 ft.			x
Teucrium fruticans	bush germander	L		4-8 ft.	4-8 ft.	x		
Thevetia peruviana	yellow oleander	M		8 ft. +	8 ft. +	x		
Thuja occidentalis varieties	American arborvitae, garden selections	M		varies		x		
Trichostema lanatum	woolly/mountain blue curls	L	●	3-5 ft.	4-8 ft.		x	
Tulbaghia violacea	society garlic	M		10-24 in.	1-2 1/2 ft.		x	x
Verbena stricta	hoary vervian	M		3 ft.	1 1/2 ft.		x	x
Viburnum japonicum	Japanese viburnum	M		15 ft.	12 ft.	x		
Viburnum tinus and varieties	laurustinus	M		varies		x		
Westringia 'Morning Light'	morning light westringia	L		3 ft.	3 ft.	x	x	
Westringia fruiticosa	coast rosemary	L		3-6 ft.	5-8 ft.	x	x	
Woodwardia fimbriata	giant chain fern	M	●	4-5 ft.	3 ft.		x	
Xylosma congestum	shiny xylosma	M		10 ft.	10 ft.	x		
Yucca spp.	yucca	L	■	varies		x	x	
Zauschneria californica 'Everett's Choice'	Everett's choice California fuschia	L	●	2-4 in.	3-5 ft.			x
Zauschneria californica varieties	California fuschia	L	●	varies			x	x
Zephryranthes spp.	zephyr flower	M		6-15 in.	1 ft.		x	x

CLIMATE-APPROPRIATE PLANTS FOR THE CITY OF RIVERSIDE

Botanical Name	Common Name	Estimated Plant Water Use Classification L - Low M - Moderate H - High	Native Species ● all species ■ select species	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
GROUND COVERS								
Abelia x grandiflora 'Prostrata'	prostrate glossy abelia	M		1 1/2-2 ft.	4-5 ft.		x	
Acacia redolens	prostrate acacia, low-growing forms	L		2 ft.	12 ft.	x		
Achillea tomentosa	woolly yarrow	L		6-10 in.	1 1/2 ft.			x
Arctostaphylos cultivars	manzanita, ground cover cultivars	L	■	varies			x	
Arctotheca calendula	cape weed	M		6-12 in.	1 1/2-2 ft.		x	x
Armeria maritima	sea pink	M	●	6-10 in.	1 ft.		x	x
Artemisia caucasica	silver spreader	L	●	3-6 in.	2 ft.		x	x
Baccharis pilularis cvs.	dwarf coyote brush	L	●	8-24 in.	6 ft.	x	x	
Bougainvillea spp.	bougainvillea	L		1 1/2-4 ft.	6-30 ft.	x		
Campanula portenschlagiana	Dalmatian bellflower	M		4-6 in.	2 ft.		x	x
Campanula poscharskyana	Serbian bellflower	M		8 in.	2 ft.		x	x
Carissa macrocarpa	Natal plum, speading varieties	M		1-2 ft.	4 ft.		x	
Ceanothus cultivars	ceanothus, low-growing forms	L	■	1-2 1/2 ft.	15 ft.	x	x	
Cerastium tomentosum	snow in summer	M		6-8 in.	2-3 ft.		x	x
Convolvulus sabatius	ground morning glory	L		1-2 ft.	3 ft.		x	
Coprosma petriei 'Verde vista'	verde vista coprosma	M		1-3 ft.	4-6 ft.		x	
Coreopsis auriculata 'Nana'	dwarf coreopsis	L		5-6 in.	2 ft.		x	x
Cotoneaster spp. (ground covers)	cotoneaster	M		1-3 ft.	6-15 ft.	x	x	
Dalea capitata	dalea (capitata)	-		8 in.	3 ft.		x	
Dalea greggii	trailing indigo bush	L		1 1/2 ft.	6 ft.	x	x	
Drosanthemum floribundum	rosea ice plant	L		6 in.	5 ft.		x	
Dymondia margaretae	dymondia	L		2-3 in.	20 in.		x	x
Erigeron karvinskianus	fleabane	M		10-20 in.	3 ft.		x	x
Euonymus fortunei	euonymum, prostrate forms	M		1/2-2 ft.	varies		x	
Fragaria spp.	strawberry	M	■	4-8 in.	1-1 1/2 ft.			x
Gazania hybrids	gazania	M		6-10 in.	3-4 ft.			x
Graptopetalum spp.	graptopetalum	L		7 in.	1 ft.			x
Helianthemum nummularium	sunrose	-		6-8 in.	3 ft.			x
Hypericum calycinum	Aaron's beard	M		1 ft.	3-4 ft.		x	x
Iberis sempervirens	evergreen candy tuft	M		8-12 in.	8-12 in.			x
Iva hayesiana	poverty weed	L	●	1 ft.	3 ft.		x	x
Lampranthus spp.	trailing ice plant	L		1 ft.	1 1/2-2 ft.			x

Climate-Appropriate Plants for the City of Riverside

Botanical Name	Common Name	Estimated Plant Water Use Classification (L - Low, M - Moderate, H - High)	Native Species (● all species, ■ select species)	Mature Height	Mature Width	Large Planting Area	Medium Planting Area	Small Planting Area
Lantana montevidensis	trailing lantana	L		2 ft.	3-6 ft.		x	
Lonicera japonica 'Halliana'	Hall's honeysuckle	L		2 ft. +	15-30 ft.	x		
Mahonia repens	creeping mahonia	M		1 ft.	3 ft.		x	x
Myoporum parvifolium & cvs.	myoporum	L		3-6 in.	9 ft.	x	x	
Myoporum 'Pacificum'	pacifica saltbush	M		2 ft.	30 ft.	x		
Osteospermum spp.	African daisy	L		6-12 in.	2-4 ft.		x	
Pelargonium peltatum	ivy geranium	M		1 ft.	5 ft.		x	x
Rosemarinus 'Prostratus'	trailing rosemary	L		2 ft.	8 ft.		x	
Scaevola 'Mauve Clusters'	fan flower	M		4-6 in.	3-5 ft.		x	
Sedum spp.	stone crop	L	■	varies			x	x
Senecio mandraliscae	kleinia	M		1-1 1/2 ft.	2 ft.		x	x
Teucrium x lucidrys	germander	L		1 ft.	2 ft.			x
Teucrium cossonii majoricum	Majorcan germander	L		9 in.	2 1/2 ft.			x
Trachelospermum asiaticum	Asian star jasmine	M		18 in.	5 ft.		x	x
Trachelospermum jasminoides	star jasmine	M		2 ft.	10 ft.		x	x
Verbena gooddingii	Goodding verbena	L	●	1 1/2-2 ft.	3-4 ft.		x	
Verbena lilacina	lilac verbena	L	●	1 ft.	3 ft.		x	x
Verbena peruviana	Peruvian verbena	L		18 in.	3 ft.		x	
Verbena rigida	vervian	M		1-2 ft.	3-4 ft.		x	x
Vinca minor	periwinkle	M		4-6 in.	1 1/2 ft.		x	x
Zinnia grandiflora	prairie zinnia	M		1 ft.	1 1/2 ft.			x

Climate-Appropriate Plants for the City of Riverside

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VINES								
Bignonia capreolata	cross vine	-		40-60 ft.		x		
Bougainvillea spp.	bougainvillea	L		15-30 ft.		x		
Campsis spp.	trumpet creeper	M		40 ft.		x		
Cissus incisa	Texas grape ivy	M		30-50 ft.		x		
Cissus rhombifolia	grape ivy	M		20 ft.		x	x	
Clytostoma callistigioides	violet trumpet vine	M		15-25 ft.				
Distictis buccinatoria	blood red trumpet vine	M		20-30 ft.		x	x	
Ficus pumila	creeping fig	M		40-60 ft.		x	x	
Gelsemium sempervirens	Carolina jessamine	M		20 ft.			x	
Hardenbergia violacea	lilac vine	M		10 ft.			x	x
Hedera helix	English ivy	M		20 ft.			x	
Jasminum polyanthum	pink jasmine	M		20 ft.			x	
Lonicera japonica	Japanese honeysuckle	L		30 ft.		x	x	
Lonicera sempervirens	trumpet honeysuckle	M		10-20 ft.			x	
Macfadyena unguis-cati	cat's claw	L		25-40 ft.		x	x	
Pandorea jasminoides	bower vine	M		20-30 ft.		x	x	
Parthenocissus quinquefolia	Virginia creeper	M		20 ft.			x	x
Parthenocissus tricuspidata	Boston ivy	M		20 ft.			x	x
Passiflora spp.	passion vine	M		20-30 ft.			x	
Rosa banksiae	Lady Banks rose	M		20 ft.		x	x	
Rosa spp	climbing roses	M		varies		x	x	
Vigna caracalla	snail vine	M		10-20 ft.			x	
Vitis californica	California wild grape	L	●	30 ft.		x		
Vitis girdiana	desert grape	L	●	30 ft.		x		
Wisteria spp.	wisteria	M		15-30 ft.		x		

Botanical Name	Common Name	% of ET (Annual Average)	Temperature Adaptation	Comments
TURF				
Cynodon dactylon 'Santa Ana'	Santa Ana Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Cynodon dactylon 'Tifdwarf'	Tifdwarf Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Cynodon dactylon 'Tifgreen'	Tifgreen Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Cynodon dactylon 'Tifway'	Tifway Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Cynodon dactylon 'U-3'	U-3 Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Cynodon dactylon "GN-1'	GN-1 Bermuda	60% of ET	warm-season	Requires over-seeding of Perennial Rye during dormancy
Festuca arundinacea	Tall Fescue	80% of ET	cool-season	Select hybrids such as 'Marathon' or 'Medallion'
Stenotaphrum secundatum	St. Augustine	60% of ET	warm-season	Requires regular dethatching
Zoysia 'Victoria'	Victoria Zoysiagrass	60% of ET	warm-season	Requires regular dethatching
Buchloe 'UC Verde'	UC Verde Buffalograss	60% of ET	warm-season	Requires infrequent mowing