

Chapter VII

project entrance

R&D Business/ Industrial

A. Introduction

Research and development (R&D), industrial and business park developments are typically separated from other land uses by significant buffer areas. In some instances however, there is a certain degree of interface between these and less intense uses such as residential areas.

This chapter provides general design guidelines and concepts which implement the Design Principles set forth in Chapter 1 by integrating, functionally and aesthetically, the aforementioned uses within the City of San Juan Capistrano.

Site-specific standards and guidelines shall take precedence when in conflict with the following guidelines. Where site specific standards or guidelines are silent, these guidelines will serve as a supplement.

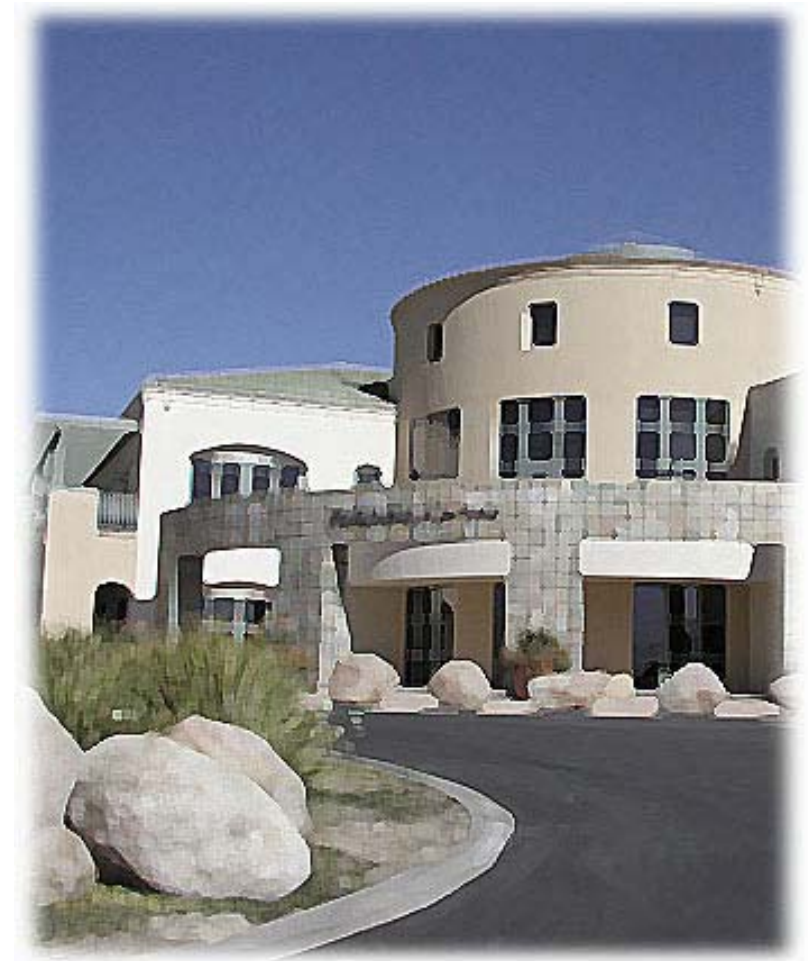


B. General Design Objectives

The design of R&D, business and industrial projects in San Juan Capistrano should:

- Reinforce or establish a unique environmental image for the district within which the project site is located, by considering the scale, proportion and character of development in the surrounding area
- Establish attractive and functional site arrangement of buildings, open space, parking areas and landscaping
- Provide site-specific, innovative, high quality architectural design solutions
- Provide stylistically diverse architectural design solutions which convey a sense of timelessness and elegance
- Facilitate pedestrian activity and access
- Minimize excessive or incompatible impacts of noise, light, traffic and visual character
- Preserve and take advantage of natural site amenities such as mature trees and hillside views
- Preserve and incorporate structures which are distinctive due to their age, cultural significance, or unique architectural style into the project development proposal

***building entrance and
passenger drop-off***



C. Site Planning

1. Grading

- a. Landform preservation should shape and guide site development of research and development business/ industrial proposals. Grading should not substantially alter natural grades to increase the area of developable land. Grading of or within characteristic topographical areas such as ridgelines, unique hillside features and creeks is prohibited.
- b. Innovative grading concepts such as contour grading, that incorporate use of variable slopes and meandering tops and toes of slopes techniques are encouraged. Smooth, gradual transitions between manufactured and natural slopes are recommended.
- c. Use of retaining walls should be minimized. Where use of retaining walls cannot be avoided, they should be screened to the maximum extent possible and use of plantable retaining walls systems should be employed as part of the design solution.

2. Compatibility

- a. Project design should complement the surrounding built environment in pattern, function, scale, character and materials. Natural site features including streams, scenic vistas and stands of mature trees should be integrated into the overall project design
- b. The placement of structures, circulation patterns and open space location should acknowledge the site's characteristics. Culturally and architecturally significant structures should be preserved and incorporated in the project development proposal.
- c. Increased setback buffers, intensified landscaping, and building orientation and design techniques should be utilized to attain the greatest degree of compatibility between commercial developments and lower intensity land uses.
- d. Linkages between commercial and residential uses are encouraged, where appropriate.

business and industrial development should complement the existing context

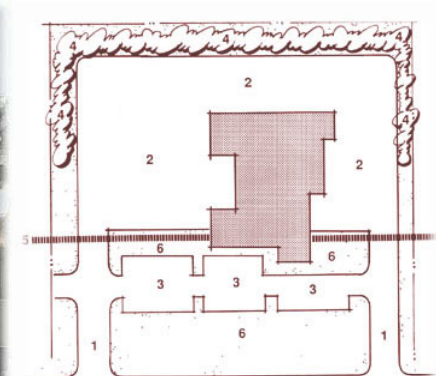


3. Site Entry Design

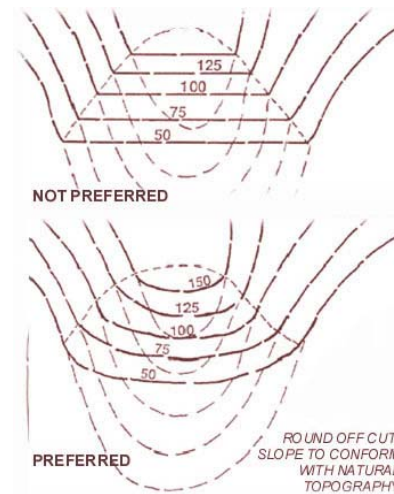
- a. Site entry design should incorporate ornamental landscaping and decorative paving. Use of low profile business identification signage at main entry points is encouraged.

4. Building Siting

- a. Structure placement and building orientation should relate to the site's context, address land use compatibility issues and complement unique site characteristics.
- b. When multiple buildings are proposed as part of an industrial development, they should be designed to create a campus-like setting.
- c. The siting and design of structures should accommodate pedestrian access and circulation.
- d. Site design should provide:
 - controlled site access (1)
 - service areas located at the sides and rear of buildings (2)
 - convenient public access and visitor parking (3)
 - screening of storage, mechanical equipment (4)
 - storage and service area screen walls (5)
 - emphasis on the main building entry and landscaping (6)
- e. Attain an interesting streetscene by use of variable building setbacks. The City encourages setbacks which provide a minimum of a 2:1 ratio of setback to building height, however zoning district development standards will ultimately control minimum setbacks.
- f. Clustering of structures to create plazas and courtyards is encouraged.



1. DRIVEWAY/ACCESS
 2. SERVICE YARD / STAGING AREA
 3. VEHICLE PARKING
 4. LANDSCAPE BUFFER
 5. NO VIEW SCREENED FENCE
 6. LANDSCAPED AREAS



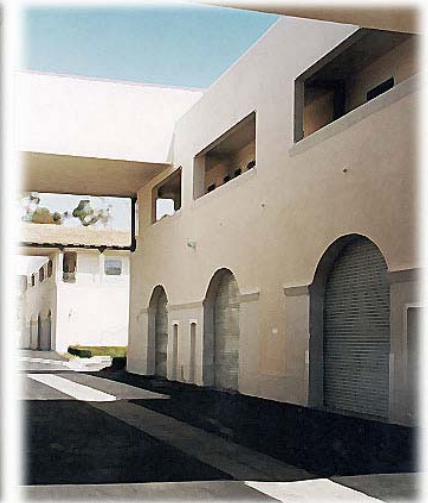
5. Vehicular Access/ Circulation/ Parking

- a. Site access and circulation design should promote safety, efficiency, and convenience for vehicular and pedestrian traffic.
- b. Use of street right-of-way areas to accommodate internal site circulation needs is not permitted. A continuous circulation network should be provided throughout the site to the greatest extent possible. Dead-end driveways should be minimized. Adequate areas for maneuvering, stacking, truck staging, loading and emergency vehicle access shall be provided on site.
- c. The number of driveway access points should be proportional to the need and scale of development. Placement of driveway entrances in proximity to street intersections should be avoided. Use of common or shared driveways is encouraged.
- d. Driveway entry locations should be aligned with existing or planned median openings and driveways on the opposite side of the roadway.
- e. Loading and service access and circulation should be independent from the general circulation system whenever possible.
- f. Parking areas should not dominate street frontages. They should be screened by landscaping and structures.
- g. A raised walkway and landscape strip should be provided between parking areas and buildings. Walkway and landscape strip dimensions should amply accommodate anticipated functions, intensity of use, landscaping theme and associated planting materials.



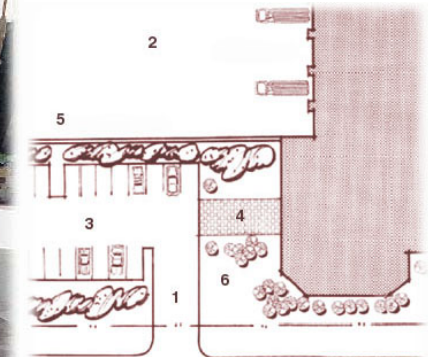
6. Pedestrian Circulation

- a. Pedestrian linkages should be established between buildings, sidewalks and parking areas.
- b. Clearly defined pedestrian paths should be provided from sidewalks and parking areas to primary building entrances.
- c. Pedestrian pathways should be separated from vehicular traffic by a change in grade level. Use of raised pedestrian pathways in conjunction with enhanced paving, landscaping and bollards to delineate pedestrian paths is recommended.
- d. Parking areas should be designed in a manner that allows pedestrians to walk parallel to moving cars and minimize the need for pedestrians to cross parking aisles and landscape islands to reach building entries.



7. Plazas/ Courtyards

- a. Inclusion of plazas, courtyards, patios, or outdoor dining areas within industrial developments is encouraged.
- b. Landscaping, water features, and public art should be incorporated into plaza and courtyard design.



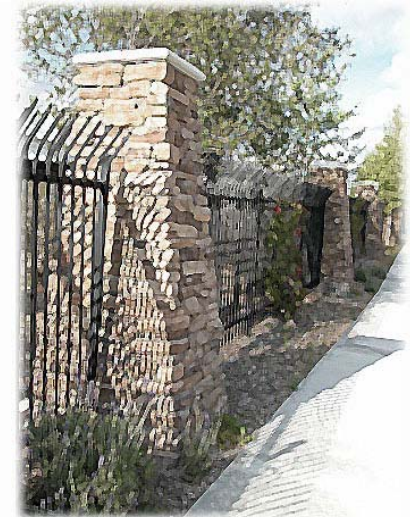
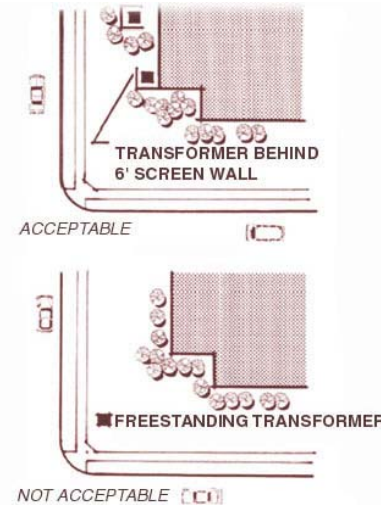
8. Loading & Delivery

- a. Locate loading and delivery service areas in a manner that minimizes their visibility, circulation conflicts and adverse noise impacts to the maximum feasible extent.
- b. The building structure(s), architectural wing walls, freestanding walls and landscape should be used to screen loading and delivery service areas.
- c. Loading and unloading operations should be accommodated entirely on site. Placement of loading and delivery areas within setback areas is discouraged.

1. DRIVEWAY/ACCESS
2. SERVICE YARD / STAGING AREA
3. VEHICLE PARKING
4. PEDESTRIAN ENTRY
5. NO VIEW SCREENED FENCE
6. LANDSCAPED AREAS

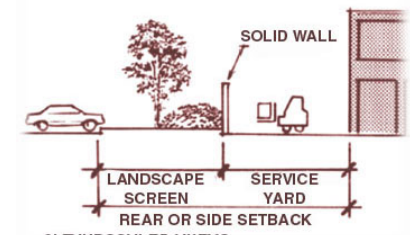
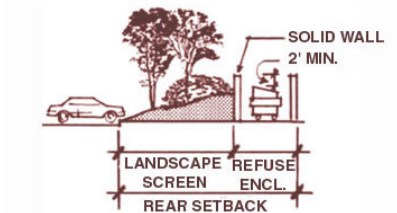
9. Utility and Mechanical Equipment

- a. Utility and mechanical equipment should be screened from view. All screening devices should be compatible with the architecture, materials and colors of adjacent structures.
- b. Utility apparatus such as transformer units, valves and timers which are required to be installed along street frontages should be undergrounded or otherwise screened from public view with landscaping.



10. Refuse and Storage Areas

- a. Trash storage should be enclosed within or adjacent to the main structure or located within separate freestanding enclosures.
- b. Trash and storage enclosures should be architecturally compatible with the project design. Landscaping should be provided adjacent to the enclosure(s) for screening purposes and to deter graffiti.
- c. The location of trash enclosures should be easily accessible for trash collection and should not impede general site circulation patterns during loading operations.
- d. Trash enclosures should be located away from residential uses to minimize nuisance to adjacent properties.



11. Walls and Fences

- a. Walls and fences should be designed to complement the project's architecture. Landscaping should be used to soften the appearance of wall and fence surfaces.
- b. Solid walls and fences within front and exterior side yards of commercial sites should be avoided.
- c. Security fencing should incorporate solid pilasters, or short solid wall segments and view fencing.

12. Paving

- a. Paving materials should complement the overall architectural theme.
- b. Decorative paving should be incorporated into parking lot design, driveway entries, pedestrian walkways and crosswalks on private property.
- c. Use of pavers that allow water infiltration is encouraged. Use of stone and brick is acceptable, where such materials are deemed appropriate.

13. Lighting

- a. Lighting shall be designed to satisfy functional and decorative needs. Security lighting should be designed as part of an overall lighting plan.
- b. The type and location of parking area and building lighting shall preclude direct glare onto adjoining property, streets, or skyward.
- c. Lighting systems should be designed for two operating levels; a higher intensity lighting level for business operating hours and a reduced intensity level for non-operating hours.
- d. Light fixtures and their structural support should be architecturally compatible with the overall design theme of the development.



D. Architectural Guidelines

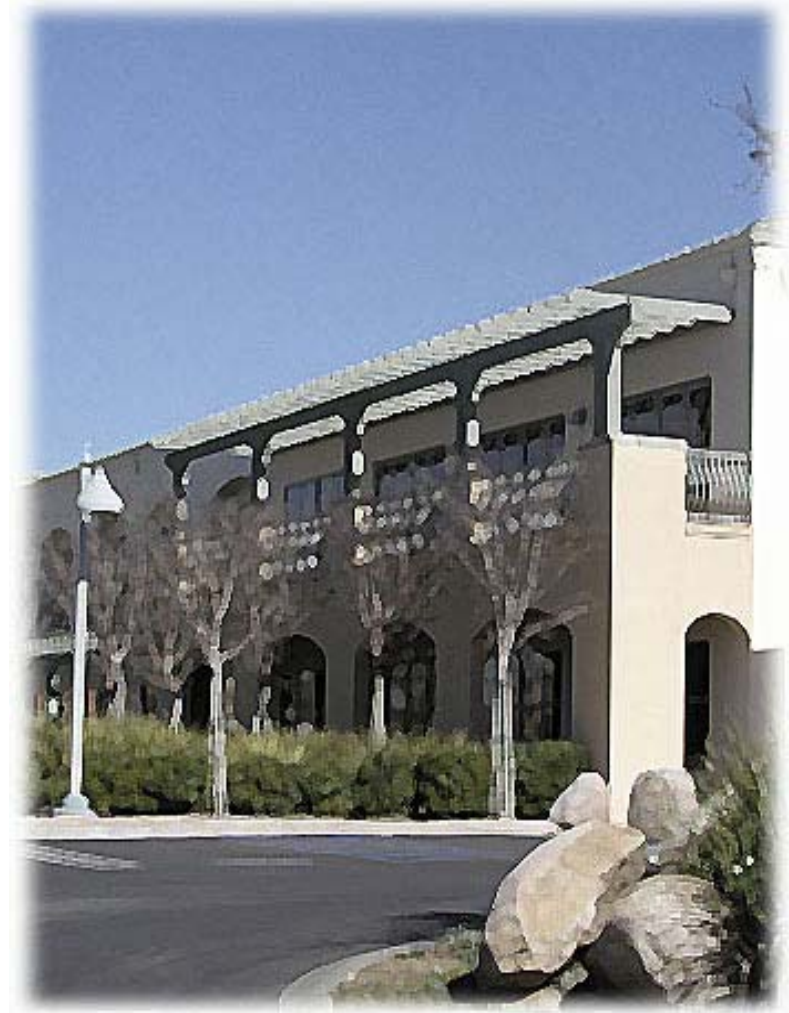
1. Architectural Imagery

- a. The City generally encourages designs which are reminiscent of the City's architectural heritage but recognizes the functional requirements associated with larger scale buildings. Since industrial zoned properties are located outside the Downtown district no particular architectural "style" is required for industrial development. High quality, innovative and imaginative architecture is encouraged.
- b. The architectural style and design should enhance the site's context and should be harmonious with existing building massing, scale, proportions, colors and materials. In all cases the selected architectural style should be utilized on all building elevations.
- c. Buildings which incorporate gratuitous architectural elements (e.g. tiled parapets, arched entry appliqué) are discouraged.
- d. The building design may include variations in form and details in order to create visual interest. In all cases the selected architectural style shall be employed on all building elevations.
- e. Individual buildings within industrial/ business parks should be designed to project a unique yet unified image with the rest of the structures through use of similar and/ or complementary colors, materials, roof forms, signage, decorative pavement and architectural style.

2. Building Façade and Roof Articulation

- a. Buildings should be segmented in distinct massing elements. Building facades should be articulated with architectural elements and details. Vertical and horizontal offsets should be provided to minimize building bulk.

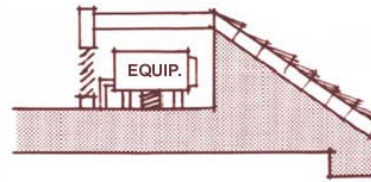
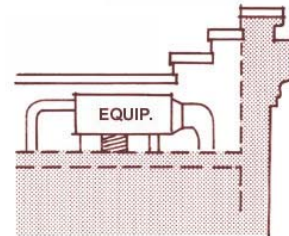
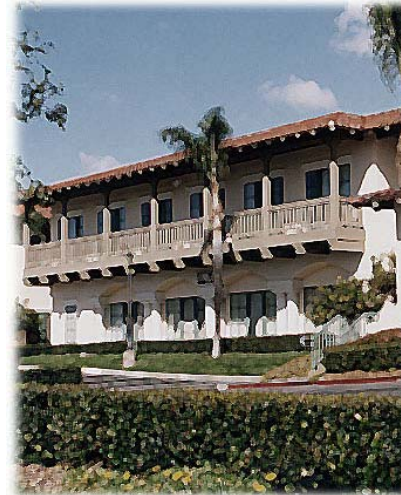
*clear elegant design with deference to
function over stylistic gesture*



- b. Building entries should evoke a “sense of arrival” by being distinctively designed and readily identifiable. Variations in massing, architectural detailing, colors and materials are encouraged to articulate entry areas.
- c. Employ various building forms and variable setbacks to create a visually interesting structure and streetscene. Utilize vertical architectural elements as focal points.
- d. All wall surfaces visible to the public should be architecturally enhanced. Front and side wall elevations should provide building offsets and architectural details. Extensive (100 ft. or greater) unarticulated building facades are not acceptable
- e. Modulate structures by varying building heights/massing and setbacks to define distinctive building functions such as offices and warehousing.
- f. Nearly vertical or mansard roofs should be avoided.
- g. Long continuous rooflines are not acceptable. Multiple roof planes and offsets are encouraged.
- h. Gutters and downspouts should be concealed, unless designed as a decorative architectural feature.
- i. All mechanical equipment should be concealed by architecturally integrated screening solutions.

3. Fenestration

- a. The proportions and location of fenestration elements (e.g. doors, windows, skylights) should relate to the scale of the structure and building elevation design upon which they are located.



4. Building Materials and Colors

- a. The selected materials and colors should contribute towards achieving an overall high quality and visually interesting building design.
- b. Use various types of building materials to produce different texture, shade and shadow effects.
- c. Materials should be chosen to withstand abuse by vandals or accidental damage by machinery. False facades and use of simulated materials is discouraged.
- d. Visually distracting, intensely colored buildings are discouraged.
- e. Gutters and downspouts should be concealed, unless designed as an architectural feature.

5. Security Hardware

- a. Electronic surveillance and security hardware should be concealed to the greatest extent possible. If security grilles are necessary, they should be architecturally integrated within the overall building design theme.

high quality, visually interesting design



E. Landscaping Guidelines

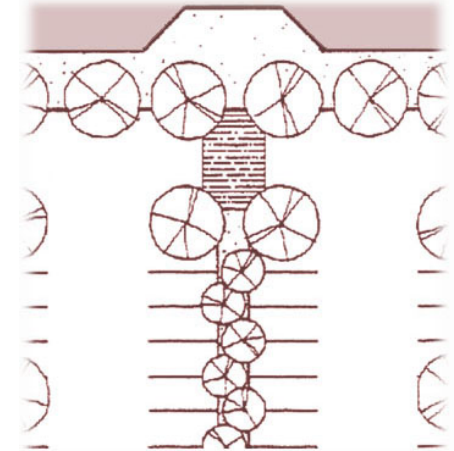
1. Standard Guidelines

- a. Project landscaping should be designed to contribute towards achieving an overall cohesive appearance and compatibility with its surroundings.
- b. Landscaping should define site functions, enhance architecture, soften the appearance of structures, buffer incompatible land uses and screen undesirable views.
- c. Tiered planting (tree-shrub-groundcover) and decorative hardscape should be utilized to enhance the visual character of the project. All areas not covered by structures, with the exception of service yards, walkways, driveways, and parking spaces, should be landscaped.
- d. The following planting design concepts are encouraged:
 - Specimen trees (12-16 ft. high min. from finish grade, or as recommended by conditions of approval) in informal groupings or rows at major focal points
 - Use of flowering vines both on walls and arbors or trellises
 - Use of planting to soften building lines with shadows and patterns
 - Use of “canopy-trees” in parking areas and passive open space areas
 - Use of berms, plantings, and walls to screen parking lots, trash enclosures, storage areas, utility boxes, etc.
- e. Existing mature, healthy trees should be preserved and incorporated within the overall landscaping plan.

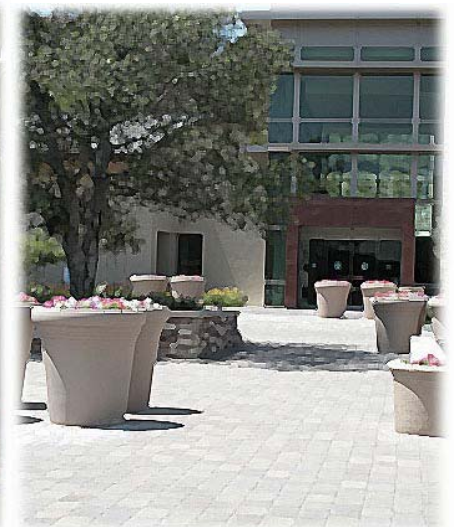
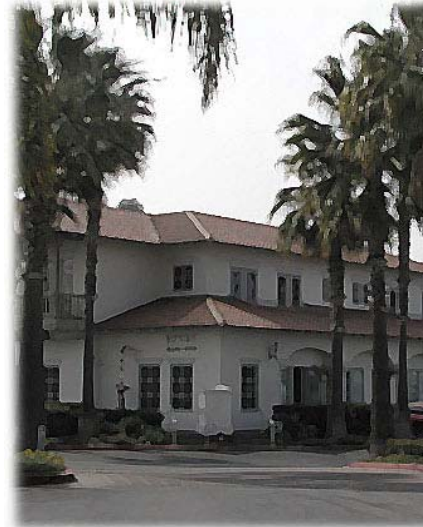
*landscaping should contribute towards achieving
and overall cohesive appearance*



- f. Trees and large shrubs should be placed as follows:
- 8 ft. (min) between center of trees and edge of driveway, 6 ft. from water meter or gas meter and sewer laterals
 - 25 ft. (min) between center of trees and beginning of curb returns at intersections
 - 25 ft. (min) between center of trees and large shrubs to utility poles and street lights
 - 8 ft. (min) between center of trees or large shrubs and fire hydrants and fire department sprinkler and standpipe connections
 - Root-barriers (guards) are required to be installed between planting and adjoining hardscape areas. A 5 ft. (min) clearance should be provided between root barriers and adjacent hardscape areas
- g. Synthetic turf is not permitted as a substitute for planting materials.
- h. Use of vines and climbing plants on trellises, and privately owned perimeter walls is encouraged.
- i. Landscaping shall be in scale with adjacent buildings and of appropriate size at maturity to accomplish its intended goals.
- j. Landscaping materials should be spaced so that they do not interfere with the lighting of the premises or restrict access to emergency apparatus (e.g. fire hydrants, fire alarm boxes).
- k. Trees or large shrubs should not be planted under overhead lines or over underground utilities.
- l. Provision of landscaping adjacent to buildings is encouraged.



PEDESTRIAN WALKWAY
THROUGH LANDSCAPED PARKING LOT



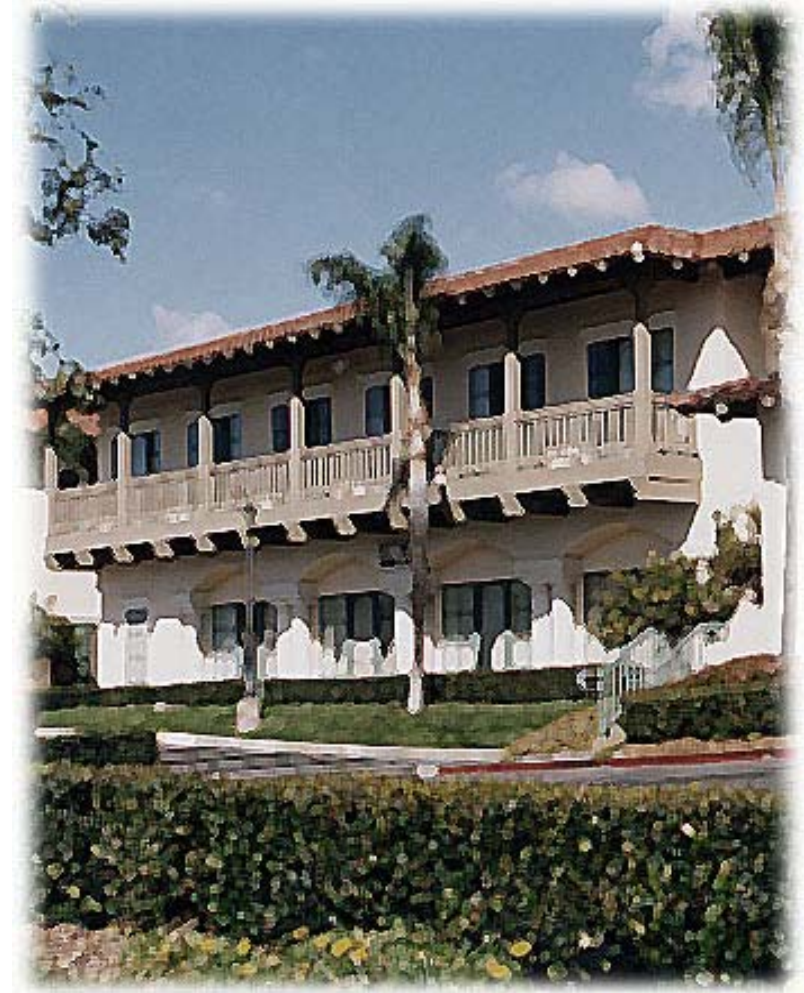
2. Parking Lot Landscaping

- a. Parking lot landscaping should accent driveways, frame the major circulation aisles, and highlight pedestrian pathways.
- b. Parking areas should provide interior planting islands in accordance with Title 9 requirements of the San Juan Capistrano Municipal Code. These landscaping areas should be planted with shade trees, low shrubs and groundcover.
- c. All parking lot street frontages should be screened by landscaping. Parking lot landscape screening should be implemented by utilizing one or a combination of the following:
 - a 32-inch high (max) evergreen hedge
 - a 32-inch high (max) earth berm with a slope no greater than 3.5:1
 - trees planted at a distance of 35 ft. on center. Trees should be a 12-16 ft. high min. from finish grade, or as recommended by conditions of approval

3. Slope Vegetation and Erosion Control

- a. All proposed slopes with a gradient greater than 6:1 and a vertical height of 3 ft. or greater, should be vegetated within 30 days of completion of grading.
- b. All plant materials should be appropriate spaced to control soil erosion.
- c. Trees, shrubs, and ground covers should be planted in undulating groupings to improve the character of manufactured slopes.
- d. Vegetation of permanent slopes should include permanent irrigation systems.

multi-tier landscape planting concept



4. Vegetation Fuel Modification Zone

- a. A fuel modification zone area, ranging in width from 50 ft. - 100 ft. should be provided for any development requiring a building permit for the primary structure where the property is located immediately adjacent to mature flammable vegetation pursuant to Orange County Fire Authority regulations.
- b. The first 50 ft. (wet zone) of vegetation fuel modification must consist of irrigated landscaping.
- c. Plant materials within the wet zone area must be fire resistant and preferably drought-tolerant. Plant materials outside of the wet zone must be fire resistant.



