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Multi-Family Residential

Multi-family developments are higher density residential buildings such as apartments, condominiums, and townhomes. They are typically comprised of attached units with common facilities such as parking, open space, and recreation areas. This chapter provides guidelines for the design of multi-family development in all areas of the City with the exception of Specific Plan areas where site-specific guidelines take precedence. The provisions of this section apply to any addition, exterior remodeling, relocation, or construction of a multi-family development requiring a design permit within the City.

These guidelines attempt to identify the fundamental attributes of multi-family developments and provide guidance with respect to neighborhood context and basic design elements. Characteristics to be considered include the way in which a building is located on a site, how it relates to adjacent uses and the street, and its basic mass, form, and articulation.



This multi-unit complex is divided into distinguishable units to reduce the massing of the building and create individuality for each home.

These guidelines are intended to:

- a. Encourage quality architecture with visual variety and interest.
- b. Encourage well-designed neighborhoods that age well over time.
- c. Ensure large buildings and parking do not dominate multi-family development.
- d. Ensure building and site design adequately address issues such as scale, privacy, noise, and circulation to ensure compatibility between multi-family and adjacent single-family developments.
- e. Protect natural features characteristic of Morgan Hill through sensitive site planning.
- f. Ensure sites provide safe pedestrian and automobile circulation on and off site.
- g. Ensure thoughtfully designed open space areas are incorporated into developments.
- h. Enhance public safety.

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A. Circulation

Intent: Create an efficient circulation system which accommodates various regular transportation modes (walking, biking, private automobile and public transit) in a safe and unified manner.

- Projects should provide for the future extension of streets for direct access or circulation to adjacent properties by providing one or more stubs or other improvement internal to the project. The future street extension(s) must be consistent with the General Plan or other specific plans. (RDCS point criterion)
- Local streets and access-ways interior to projects should be designed for use primarily by local residents and discourage fast through traffic by using curvilinear roads, and traffic calming design. (RDCS point criterion)
- Street layouts should be designed to avoid undesirable layouts such as double frontages, off-set intersections, utility easements in rear or side yards of private property, or developable land locked property. (RDCS point criterion)
- Provides a minimum 25' clear view back-out distance between enclosed garage space and drive aisle. (RDCS point criterion)



- In R-3 and higher density mixed-use projects, interior parks and recreation amenities should be located away from parking lots and circulation aisles.
- In R-3 and higher density mixed-use projects, the proposed development should minimize conflicting back out movements by using single loading streets or drive aisles to access individual parking spaces.
- Streets (public or private) should be designed to meet all city safety and parking standards and allow for a looping pattern of circulation. (RDCS point criterion)
- The creation of short blocks between existing and/or proposed streets should be avoided. A short block is considered to be less than 252' from centerline to centerline of streets. (RDCS point criterion)
- When possible, access to a project should be provided from at least two separate streets. (RDCS point criterion)

B. Lot Layout

Intent: Minimize impacts of parking lots, garage doors, and large structures.

- The creation of public or private common useable open space is encouraged where neighborhood homeowners associations or other acceptable private maintenance entity can be used to coordinate their use and maintenance. (RDCS point criterion)
- Locate streets and arrange units to provide park/open space area that is aggregated into large meaningful area(s) that are conveniently located within the development. (RDCS point criterion)



Common areas, such as this park, are encouraged.



Example of homes fronting onto common parkway.

- Open space buffer areas of a minimum of 30' in width should be provided adjacent to arterial streets. (RDCS point criterion)
- Project layouts should provide for convenient access to public or private parks internal to the project where appropriate through the use of bicycle and pedestrian pathways. (RDCS point criterion)
- Accessibility to existing or proposed public parks and open space areas outside the project boundary is encouraged. (RDCS point criterion)
- Bicycle and pedestrian pathways should be located in areas no less than 20' wide, with an average width of 30' (for the entire length of the path). Pathways should be paved or provided with other suitable durable surface and a minimum of 7' in width. (RDCS point criterion)
- Avoid the creation of sharp angled lots which waste land and constitute poor building sites. (RDCS point criterion)
- Climatic factors such as prevailing winds, shade trees, window and door orientation, and the positioning of buildings on the site should be coordinated to maximize energy conservation.

B.. Lot Layout (Continued)

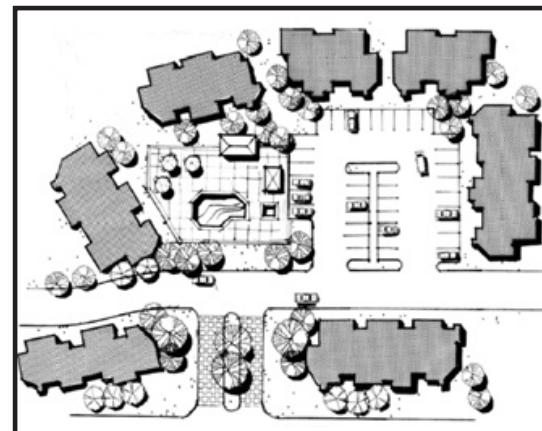
- Avoid creating lots which require driveways greater than 150' in length for access. (RDCS point criterion)
- A sufficient transition in lot sizes, or building sizes should be provided within the site plan design to allow compatibility between existing and proposed neighborhoods. (RDCS point criterion)
- Locate streets, design lots, and arrange units to enhance neighborhood security by arranging a minimum of 75% of the units so that entrances are visible from the public right of way or private circulation areas. (RDCS point criterion)
- A minimum 5' front setback variation should be provided between adjacent units for single family attached units and 4' front setback variation provided between adjoining buildings for multi-family developments. Ideally, projects should also provide side yards at least 20% in excess of the minimum required by zoning to avoid crowding and to enhance spatial relationships. (RDCS point criterion)



- Project layouts should arrange buildings, access-ways, parking areas and open space to minimize the use of sound walls next to the freeway, the railroad tracks, arterial or collector streets. (RDCS point criterion)
- A minimum 5' rear setback variation should be provided between adjoining units for single family attached dwellings and 4' front setback variation provided between adjoining buildings for multi-family developments. (RDCS point criterion)
- A 4' variation in standard lot widths (excluding cul-de-sac lots) should be provided. (RDCS point criterion)
- Intensified landscaping, increased setbacks and appropriate building orientation should be used to buffer or transition residential uses from incompatible adjacent uses. See zoning district standards for specific setback requirements.
- Multi-family development adjacent to single-family neighborhoods should provide a transition to the single-story neighborhood through such things as increased setbacks, placement of single story elements and window position along the adjoining property line.

B. Lot Layout (Continued)

- Developments should be designed to give individuals maximum privacy within and outside homes. In addition to the required 5' variation in front setback, site layout techniques for privacy include alternating the placement of windows, rear yard outdoor patio areas and entrances and consideration of fence height in relation to grade changes. (RDCS point criterion)
- The visual impact of large structures should be minimized by creating a cluster of smaller buildings or the appearance of a series of smaller buildings.



An example of units laid out in clusters to reduce building sizes and create pockets for parking and open space.



The picture on the left shows how an enlarged setback can be used to provide increased landscaping as a buffer between the residences and the street. This is made possible by the use of an alley system as shown in the picture on the right.

- An opportunity to provide alley access or private drive aisle should be explored when garage parking is proposed. This is intended to provide maximum landscaping at the street edge, as well as front facades dominated by porches and entries instead of garage doors.
- Refer to VTA Community Design & Transportation Best Practices Manual for additional guidelines for lot layout.

C. Grading & Drainage

Intent: Encourage grading and drainage solutions that have a natural appearance and minimize drainage problems.

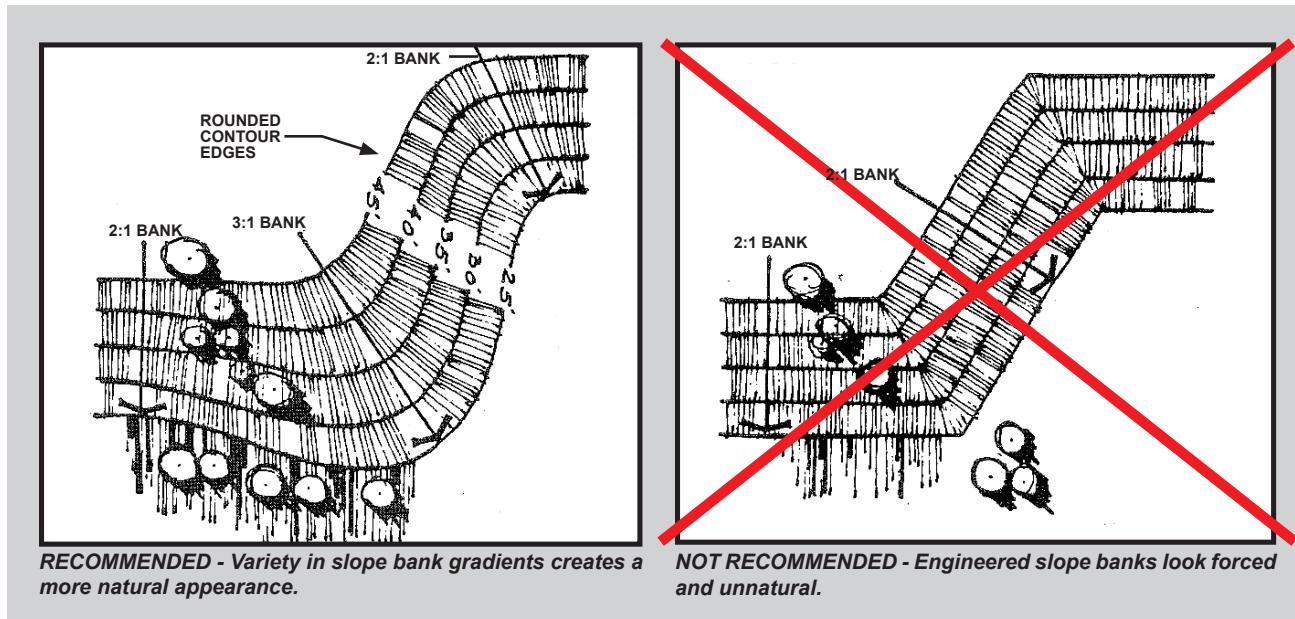
- Excess soil beyond minimum required to provide positive drainage should be off hauled.
- Building pad heights should be no more than 2' above natural grade. (RDCS point criterion)
- Grading should coordinate with drainage methods of adjacent properties and should minimize differentiation in pad heights between the subject property and adjacent properties.
- Any construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit).



- Stormwater detention should be designed as a landscape feature.
- An erosion and sediment control plan will be required prior to any physical development of property. Erosion control should be planned between October 15th and May 1st, and sediment control shall be planned year round for the life of a project. Said plans shall meet the minimum standards and specification of the California Storm water Quality Association (CASQA) Storm water Best Management Practice (BMP) Hand book.
- New development should incorporate open space buffers adjacent to waterways, in order to protect the stream and the existing/potential natural resources and habitats contained therein, Trails, pedestrian pathways and/or bikeways should be included within the open space buffer either as reflected in the City's Park and Bikeways Master Plan or when reasonable and appropriate.
- Development should be in substantial conformance with the User Manual of Guidelines and Standards for Land Use Near Streams, August 2006 as amended.
- Controlled drainage of stormwater should be directed away from buildings.

C. Grading & Drainage (Continued)

- All cuts and fills should be at a 2:1 slope or less unless stabilized by a retaining wall or cribbing as approved by the City Engineer or Chief Building Official.
- Structural Retaining walls which are part of a building and are more than 18" (measured from immediate grade) should be of concrete or masonry, or masonry system. Concrete block walls should be textured and colored to complement building surface and/or landscaping.
- Permanent storm-drainage facilities are generally not available, projects should plan for on-site storm water detention as required by the City Engineer.
- Projects are highly encouraged to share storm water detention facilities when capacity is available. (RDCS point criterion)
- Development on hillside lots should accommodate a majority of the grade differential by stepping the building to reflect the natural slope topography.
- Excessive cut and fill shall be avoided by following natural contours.



- Slopes should be rounded and contoured to blend with the existing terrain and to minimize grade differentials with adjacent streets and properties.
- Grading should retain as much natural vegetation (especially trees) as possible.
- Retaining walls above 4' are discouraged.

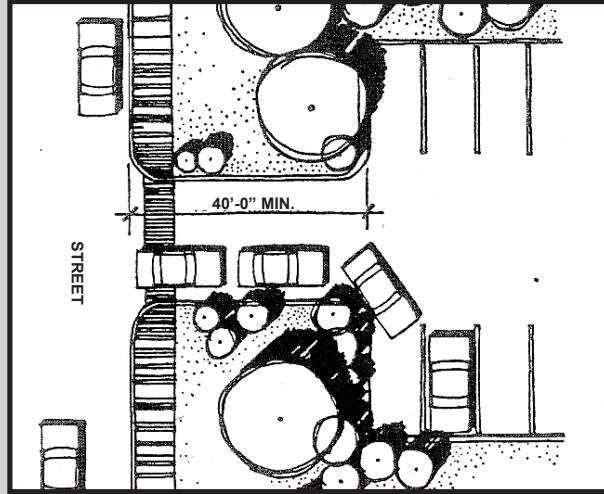
D. On-site Access & Circulation

Intent: Provide safe and efficient circulation for both pedestrians and vehicles.

- A minimum 40' stacking distance should be provided between the edge of travel lane and first parking space. If street has on-street parking, the 8' wide parking lane can be included within the 40'.
- Driveway entries should align with existing or planned median openings and adjacent driveways.
- Interior streets and/or drive aisles are designed to meet all city safety and parking standards and allow for a looping pattern of circulation. Dead end drive aisles should be minimized. (RDCS point criterion)
- Provide for the future extension of drive aisles, or connections to shared access drives or adjacent parking lots. Reciprocal access easements between sites should be provided where there is opportunity. (RDCS point criterion)
- Site plans should avoid or eliminate unnecessary driveway entrances.
- Colored, textured, and permeable paving treatment at entry drives is encouraged.



On-site circulation enhanced with decorative paving



A minimum of 40' shall be provided between the end of right-of-way and the first parking space in the lot.

- Use of decorative paving for walkways is encouraged.
- Easily identifiable pedestrian connections should be provided from the street / sidewalk to key areas within or adjacent to the site. These pedestrian walkways should be safe, visually attractive, and well defined by landscaping and lighting.
- Long, monotonous balconies and corridors that provide access to multiple units should be avoided. Instead, access points should be clustered.
- Concrete curbing shall be used as wheel stops where possible. The use of bumper blocks is discouraged.

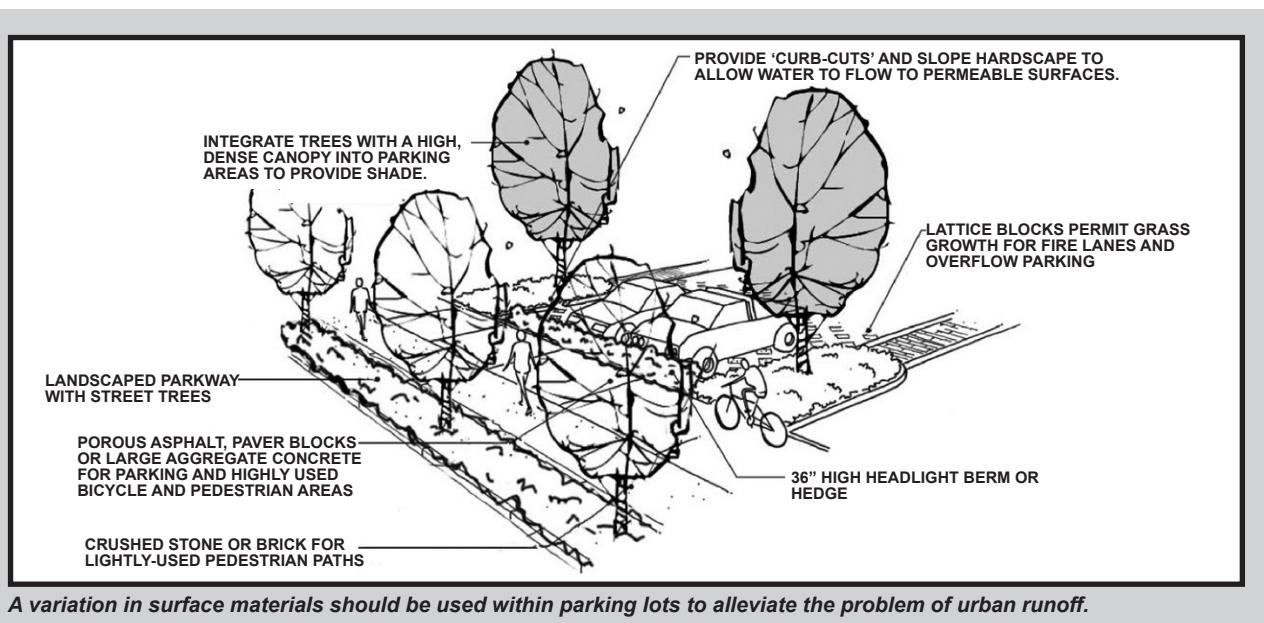


This pedestrian corridor is well lit and appears safe and visually attractive.

E. Parking Area

Intent: Minimize impacts of large expanses of parking in parking lots.

- Any parcel or portion of land used for the parking, loading or storage of motor vehicles, should be improved and maintained with landscaping.
- All parking areas should be graded, surfaced, drained and lighted. All parking stalls, lanes and directional signs should be marked in an accordance with chapter 18.50 of the municipal code.
- When a parking area is located adjacent to an arterial street, there should be a landscaped area at least 30' in width between the parking area and the public right of way or private street. When a parking area is located adjacent to a private, local or collector street there should be a landscaped area at least 15' in width between the parking area and the public/private right of way.
- Parking areas and cars should not be the dominant visual element of the site or streetscape.
- In large parking areas, pedestrian paths of travel should be located within landscape islands



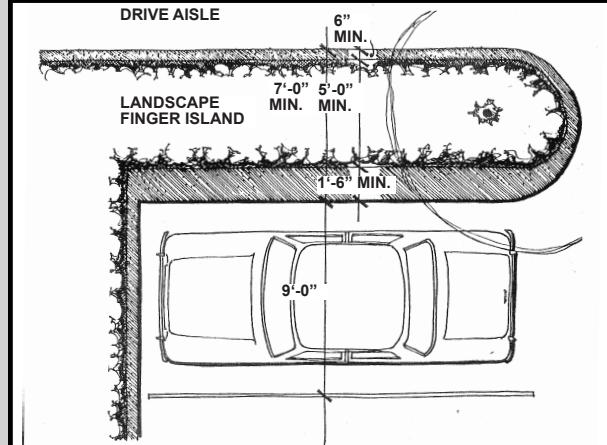
- Parking areas should provide ADA compliant path of travel between public sidewalk and building entrance.
- Parking lots on corner sites should not be located near the intersection. It is preferred that buildings be placed close to the required setback from street, with landscaping between building and street and parking located behind building.
- There should be an additional planter area adjoining each tenth parking space in each row of parking spaces, except that when there are more than fourteen and less than twenty spaces, the additional planter should be centered in the row.
- All end parking stalls should be adjacent to landscape planters. The landscape planter should contain a 12" extension (created as an integral pour) of concrete inside the 6" curb of the planter, to create an 18" concrete strip for a person to step on when getting into or out of a vehicle. This should not reduce the minimum inside dimension of the 5' wide landscape planter.

E. Parking Area (Continued)

- Where front-to-front parking spaces are provided, required planter areas should be aligned to form a continuous planter area.
- Where a parking lot adjoins a non residential district, they should be separated by a solid masonry wall not less than 5' nor more than 6' in height. The wall should not exceed 3' in height within the front setback of the adjoining non residential district.
- Pedestrian drop-off areas should be a minimum of 9' wide and located outside vehicle circulation aisles and pedestrian pathways.
- Parking areas should include visitor parking per municipal code section 18.50.
- Resident and visitor parking should be located in close proximity to the building in which it serves.



A minimum 4' landscaping strip should surround the building and provide a separation for the sidewalk area.

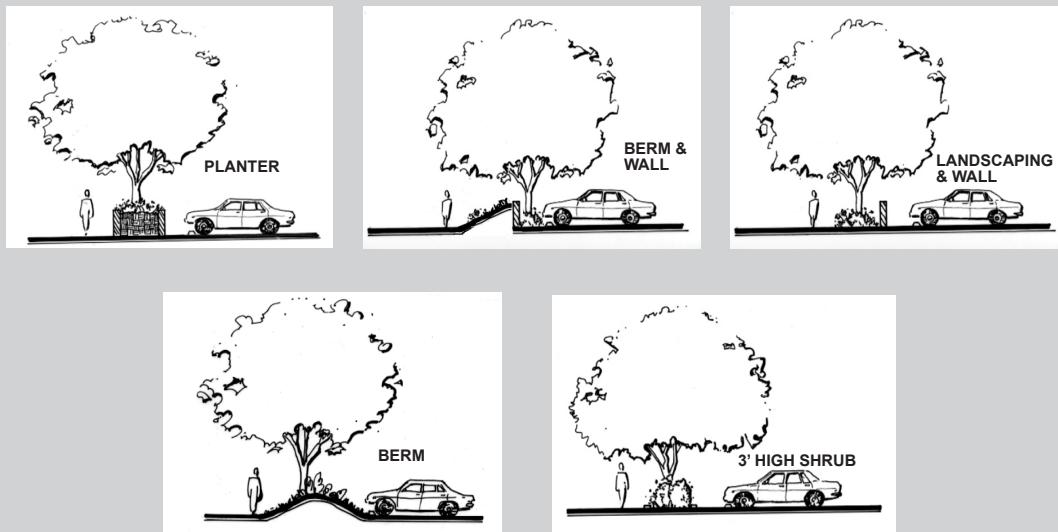


Landscaping finger islands should be provided 1 per 10 spaces and should be designed as illustrated above.

- Where parking areas and drive aisles directly abut a building, a landscape strip (minimum width of 4') should be provided between the building and parking/paved areas visible from public streets and/or between the fences and property lines which are visible from the public street. Where entries, plazas, and arcades are adjacent to the parking/paved area, no landscape strip is required.
- The interior of any parking area should be landscaped, with planter areas measuring a minimum 5' in width, minimum inside dimension, at both ends of each row of spaces, with the planter area length to be equal to adjoining parking spaces.
- Landscaping within parking areas should be protected from encroaching vehicles by 6" concrete curbing or raised planting areas.

E. Parking Area (Continued)

- Screening should minimize view of parking lots while allowing public & police surveillance for safety. Effective screening is generally 3-4' in height.
- Dead-end ninety-degree parking shall be provided with adequate turning room. The turn-around area may encroach into landscape areas, provided that a landscaped strip of a minimum width of 2'-6" is provided between the paved area (including curb width) and the property line.
- Dead end drive aisles should be minimized.
- Any parking layout necessitating a cul-de-sac or similar type of turning facility for reversing direction of travel in order to exit from the area or any parking spaces will be generally discouraged.
- 30% of the required parking may be designated as compact car parking.



Various methods are available to screen parking from the street.

- When a long driveway having only a single ingress is necessary within a development, provisions should be made for the maneuvering of emergency vehicles, and the arrangement approved by city staff prior to its incorporation.
- A 2' vehicle overhang can be counted toward the required parking stall length when the 2' overhang is within a minimum 5' wide landscape area or overhangs a minimum 6' wide sidewalk/walkway.
- Large expanses of paved areas and long rows of parking spaces should be avoided.

F. Utility Location

Intent: Minimize visual impacts of utilities.

- Utility and service areas should be part of the early building design process rather than an afterthought at the construction document phase.
- When placed within the front setback or any location visible to the public right-of-way, transformers should be placed underground to maximize safety and minimize visual impacts. Where this cannot be achieved, they should be well screened and placed in the rear or side yard area minimizing visibility from public right-of-way.
- Mechanical equipment including gas and electrical meters, cable boxes, junction boxes, and irrigation controllers should be located within a utility room, along with the fire riser and roof access ladder. Where this cannot be achieved, they shall be designed as an integral part of the building on a rear or side elevation and screened from public view.



RECOMENDED - The mechanical and electrical equipment for this building has been successfully concealed within the building with louvered doors and trim painted to match other elements on the building facade.



NOT RECOMMENDED - location and treatment of exposed equipment.

- Double Detector Check Valve Assemblies (Back flow preventers) for landscape irrigation and domestic water should not be located at visually prominent locations and shall be well-screened with shrubs, berming, or low screen walls.
- Landscaping should be used to screen above ground utility transformers, pull boxes, and termination cabinets where allowed by utility providers.
- Solar heating equipment and satellite dish antennas need not be screened, but should be located on the roof or in a rear or side setback area and must be as unabtrusive as possible.



NOT RECOMMENDED - Double Detector Check Valve Assemblies shall be screened from view.

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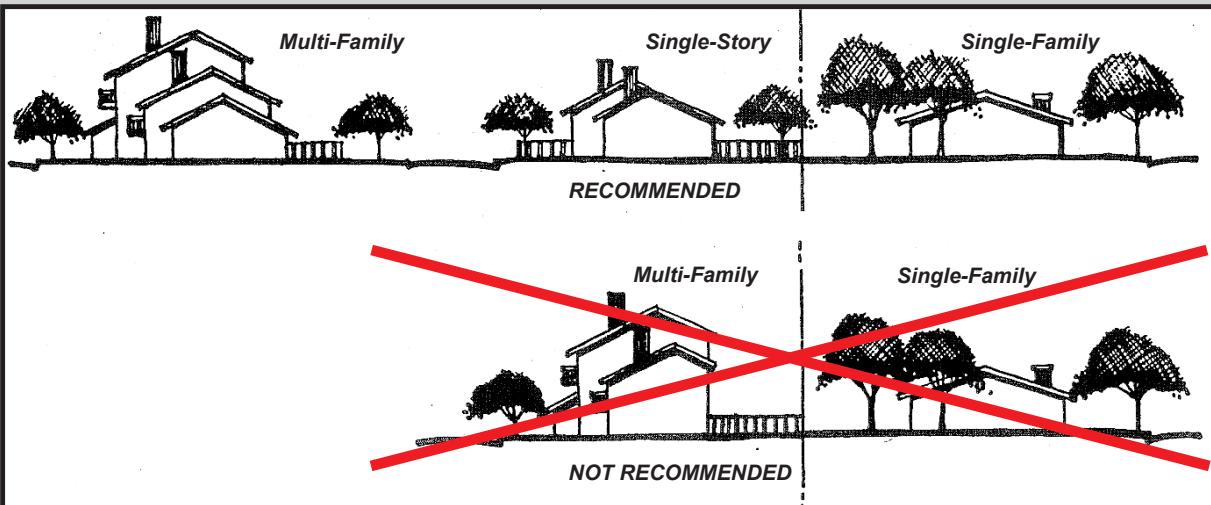
A. Scale & Massing

Intent: Encourage quality architecture with well proportioned buildings that are appropriate for their setting and are visually interesting due to variation of shape and height.

- Massing on multi-family buildings should articulate individual units or clusters of units. Building massing should include variation in wall planes (project and recess), wall height (vertical relief), and roof forms (silhouettes) to reduce the perceived scale of the building.
- Scale & Proportions should be consistent to and complementary with the architectural style of the building and type of use.



Each individual unit is articulated and easily identifiable within this multi-family project.



Multi-family developments are encouraged to place single story units next to the adjacent single family development to buffer it from the new multi-story development.

- Surface detailing is not considered a substitute for required material integration and distinctive scale and massing.
- Tall or large structures should emphasize horizontal planes through the use of trim, awnings, eaves, other ornamentation, or a combination of complementary colors.
- The upper stories (3rd or 4th) multi-story building should be stepped back to reduce the scale of façades facing the street, courtyards, or open space areas.
- Combinations of multiple story units are encouraged to create variation in mass and building height.



The variation in wall and roof planes helps to break up the overall massing of the building.

B. Roof Forms

Intent: Encourage roof forms that will add interest to the street scene and minimize impact of large structures.

- Buildings with flat or low-pitched roofs should incorporate architectural elements to break up long horizontal rooflines.
- Rooflines should be designed to create architectural interest and to “break” large structures into smaller perceived scales. Roofs should incorporate a maximum of two varying roof types (e.g., hip, gable), or a minimum of two varying roof heights for flat roofed structures.
- Rooflines/parapets should be designed to screen roof mounted mechanical equipment. All screening shall be constructed consistent with the materials of the building and shall be designed as a continuous component. Use of separate roof screen structures is discouraged.
- If the interior side of a parapet is visible from pedestrian view, it shall be finished with the same materials and a similar level of detail as the exterior side.
- Parapets should include one or more of the following detail treatments: continuous banding or projecting cornices, dentils, caps, corner details, or variety in pitch.
- Parapets, screen walls or roof screens should not appear “tacked on,” should convey a sense of permanence, and should be architecturally compatible with the building.



Multiple rooflines at different levels and along the ridge help to reduce the massing of the building.



Gable, hip, and shed roof forms are combined successfully on this building.

- Multi-form roofs, such as gables and shed roof combinations are encouraged to create varying roof forms.
- Variation in form is encouraged to create interest, lessen the mass of the building and add visual appeal
- Deep roof overhangs are encouraged to create shadow and add depth to facades.



The extended overhang and exposed rafters on this roof form adds depth to the facade.

C. Entries, Doorways & Windows

Intent: Encourage quality architecture with well articulated entries, doorways, and windows.

- The main building entrance should be clearly identifiable and distinguished from the rest of the building. All entrances shall be emphasized using lighting, landscaping, and architecture.
- The main entrance to each unit should be clearly identifiable and provide protection from the weather.



Welcoming street presence enhances the desired neighborhood environment



Entries shall be clearly identifiable as in this example.

Entry design should incorporate two or more of the following:

- a. A change in wall / window plane or wall articulations around the door projecting beyond the door.
- b. Placement of art or decorative detailing at the entry.
- c. A projecting element above the entrance.
- d. A change in material or detailing.
- e. Implementation of architectural elements such as flanked columns or decorative fixtures.
- f. Recessed doors, archways, or cased openings.
- g. A portico or formal porch projecting from or set into the surface.

- Window type, material, shape, and proportion should complement the architectural style of the building.
- Windows should be articulated through the use of details such as recessing sills, trim, kickers, shutters, or awnings authentic to the architectural style of the building.
- Upper floor entries should have a distinct design that complements the main building frontage.
- Stairways should be designed as an integral part of the overall architecture of the building. Stairways should complement the building's mass and form.
- For adequate security surveillance, entrances to individual units should be visible from the public right-of-way or internal drive aisle.

D. Articulation

Intent: Ensure quality residential developments that are well articulated on all sides.

- The highest level of articulation should occur on the front façade and facades visible from public streets; and similar and complementary massing, materials, and details are to be incorporated into every building elevation.
- Architectural elements such as overhangs, trellises, projections, awnings, insets, material, and texture should be used to create a human scale at the pedestrian level on a building.
- Building elements and details should be consistent with the chosen architectural style.
- Architectural elements that add visual interest, scale, and character such as recessed or projecting balconies, trellises, recessed windows, verandas, and porches are encouraged.



A combination of materials, projecting trim, recessed wall planes, and balconies add articulation to this building.

The detailing and articulation of structures provides depth, substance, and scale. Building forms and facades influence cohesiveness, comfort, and aesthetic pride while increasing a sense of security and generating pedestrian activity.



Exposed structural elements

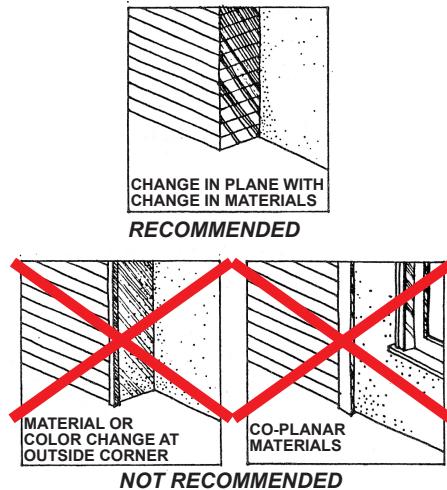


Balconies, trellis structures, and window trim add visual interest to this building.

E. Materials & Color

Intent: Provide direction for appropriate use of materials and colors to create higher quality neighborhoods.

- Noncombustible siding should be used on at least 75% of the total units and comprises at least 50% of the siding of an individual unit. (RDCS criterion)
- Where material changes occur, the change should occur or at intersecting planes (or other appropriate locations), preferably at inside corners of changing wall planes or where architectural elements intersect, such as a chimney, pilaster, projection, or fence line.



The forms of this building are further defined by uniquely painted surfaces and contrasting window trim.



Stone is used to define the building base and reduce the massing of the building.

- Where appropriate to the architectural style, materials and textures should vary between the base and body of a building to break up large wall planes and add visual base to the building.
- Materials, textures and colors should be used to enhance different parts of a building's façade. Heavier materials should be used lower on the building elevation to form the building base.
- Contrasting but complementary colors should be used for trim, windows, doors, and key architectural elements.



The colors used in this project reflect the architectural style of the building.

F. Trash Enclosures

Intent: Provide direction for effective design and minimize visual impact of trash enclosures.

- Enclosures within multi-family developments should be covered with a trellis or other type of roof form.
- Enclosures should be separated from adjacent parking stalls with a minimum 3' wide planter and a 12" wide paved surface behind the curb (consistent with planter island standards). This will ensure adequate space is available for passengers to access their vehicle.
- Trash/recycling enclosures should be a minimum of 12' wide x 8'-8" deep and are required to be screened with landscape materials. Refer to recycling ordinance for additional requirements.
- Trash / recycling containers should be screened using landscaping and enclosures designed consistent with the development. Chain link fencing and gates with slats should not be used.
- Enclosures should not be visible from primary entry drives.



This trash enclosure is conveniently located and has been designed to relate to the residence.

Trash enclosure design standards:

- a. **Materials.** Enclosures should be constructed of a solid masonry material and finished to complement the building materials on-site.
- b. **Height.** Enclosures should be a minimum of 6' in height.
- c. **Gates.** Enclosures should include solid view-obstructing gates.
- d. **Roof.** Enclosures should include a roof or trellis structure architecturally compatible with the core buildings.
- e. **Curbing/Bumper.** A 12" curb, bumper, or other method should be incorporated along interior base to prevent dumpster from hitting the sides of trash enclosure.
- f. **Apron.** A concrete apron should be provided in front of the enclosure to prevent damage from garbage trucks.
- g. **Drainage.** Enclosures should provide for adequate drainage.

- Trash enclosure areas should be carefully designed, located, and integrated into the site plan.
- Enclosures should be unobtrusive and conveniently located for trash disposal by tenants and collection by service vehicles.
- A pedestrian entrance to the trash enclosure should be provided so that the large access doors do not have to be opened as often.

G. Gutters, Downspouts & Building Identification

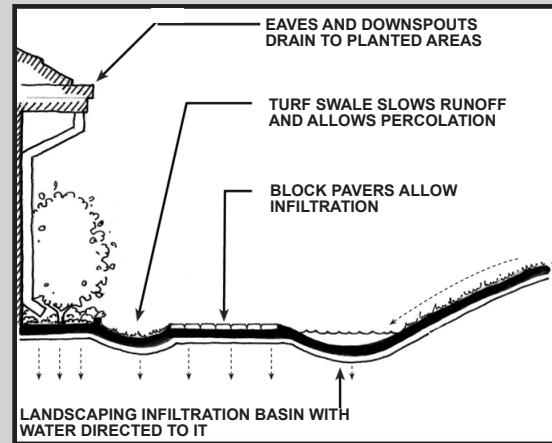
Intent: Provide design direction for functional building elements.

- All vents, gutters, downspouts, and flashing, shall be painted to match the surface to which attached, unless used as a major design element, in which case the color is to be consistent with the overall color scheme of the building.
- Discharge from gutters and downspouts should not flow directly across pedestrian walkways. Water should be directed to permeable areas for percolation or discharges into a project drainage system. The use of splashblocks are discouraged.
- Gutters and downspouts should be decorative, and should not appear as a “tacked on” afterthought.



A copper downspout is used as a design element on this building.

- Non-decorative externally mounted gutters and downspouts should be avoided on elevations facing a public right-of-way.
- Electrical meters, cable boxes, junction boxes, and irrigation controllers should be either designed as an integral part of the building on a rear or side elevation or otherwise screened from public view.
- Street addresses should be a minimum of 4" in height and should be displayed in contrast with their background such that they are easily visible to approaching emergency vehicles. Illuminated address numbers and painted reflective curb numbers are encouraged. (RDCS scoring criterion)



Downspouts should drain into permeable surfaces and planted areas to reduce runoff.

H. Garages, Carports, and Ancillary Structures

Intent: Minimize impact of garage doors and ancillary structures in neighborhood.

- Enclosures around common mailboxes should be provided. Enclosures should be designed similar to or complementary in form, material, and color to the surrounding residential buildings.
- Carports, detached garages, and other ancillary structures should be designed as an integral part of the development.
- Divided or staggered garages are encouraged to help minimize the visual impact of large garage doors.



Example of a common mailbox designed to complement the development.



The roof and building materials used on the primary buildings have been used on these carports and garages unifying the design of the development.

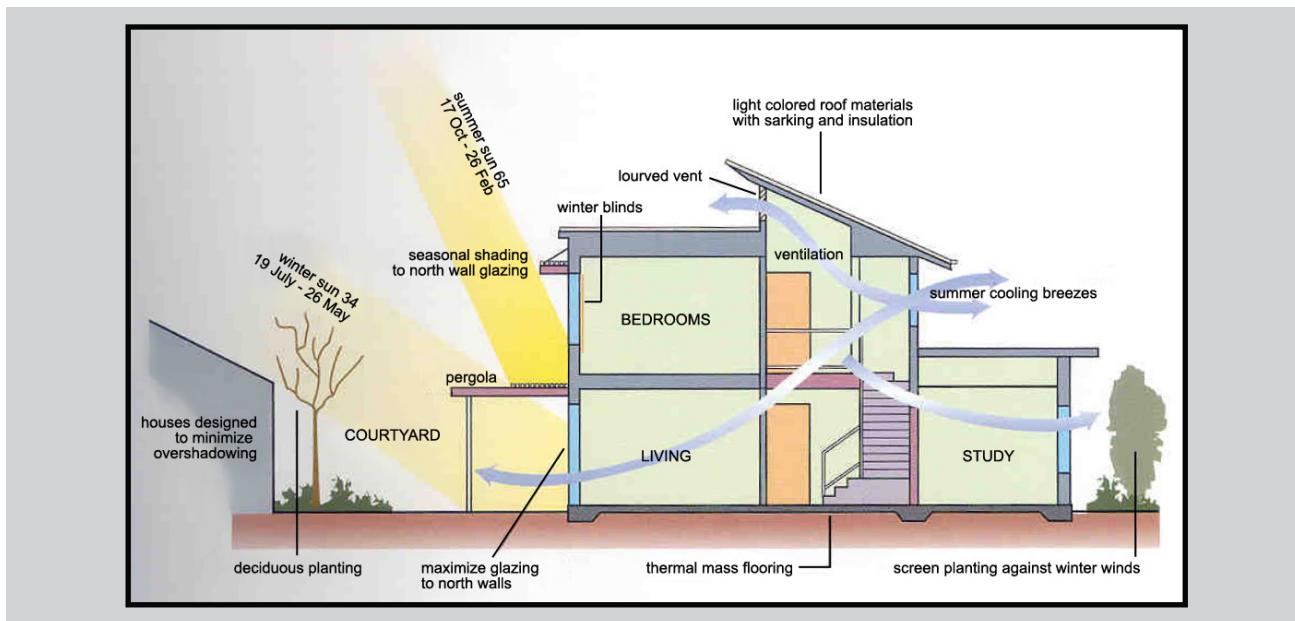
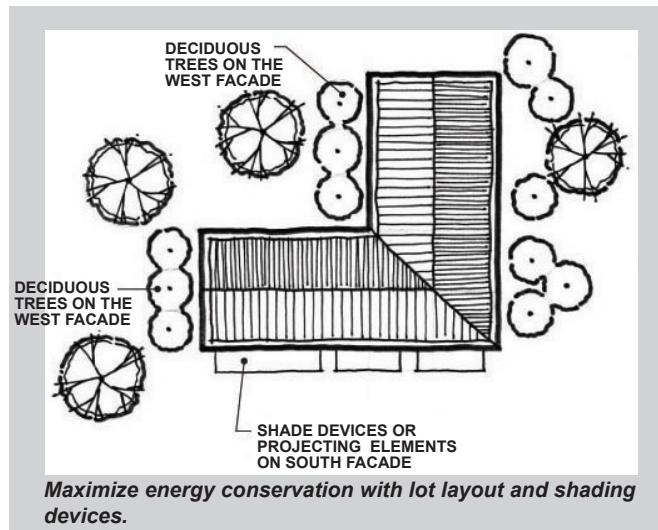
- Garage doors should be articulated with panels and/or windows to articulate these large planes.
- Ancillary structures should incorporate similar or complementary roof pitch and materials.

I. Energy Conservation

Intent: Conservation of energy through lot layout, building design and construction techniques. Refer to the “Build it Green” check list.

Heating & Cooling

- Buildings should be designed to minimize mechanical heating and cooling. Sunlight should be used for direct heating and illumination wherever possible.
- Natural ventilation and shading should be used to cool a building. Active and passive solar heating is encouraged.
- The use of two separately zoned high-efficiency heating systems in units over 3000 square feet, is encouraged. The heating systems must be high efficiency gas furnaces with 90% efficiency rating or greater. (RDCS point criterion)



- Homes that utilize alternate energy sources, such as solar hot water, alternative power generation, solar space heating or other energy saving methods are highly encouraged.
- EPA “Energy Star” labeled windows with low e-coatings should be utilized.
- All homes are encouraged to use energy-efficient features under the P.G.&E. New Homes Program. These features include tight construction and tightly sealed ducts; energy-saving windows; improved insulation; super efficient heating and air conditioning systems. (Installation of a HERS (Home Energy Rating System) certified heating and air conditioning (HVAC) system with all duct work tested and certified to achieve a minimum 3 percent savings in the home energy budget). (RDCS point criterion)
- Light exterior roof colors should be used to reflect the sun’s heat. (RDCS criterion)

I. Energy Conservation

Water Conservation

- Household water conservation is encouraged through innovative building techniques that result in reduced water waste, and which exceed current city and state standards. For example, re-circulating hot water system with demand pumping, or other water saving plumbing systems or features are highly encouraged.

Electrical

- All homes are encouraged to have alternative energy sources and power generation providing for at least 50% of the home electricity requirement.
- Low-voltage / high efficiency lighting should be used in the landscape whenever possible.
- Incorporate timers and sensors to avoid unnecessary lighting.
- Renewable energy sources are encouraged for indoor lighting including roof monitors, skylights, or light wells for day lighting upper floors.
- Windows should be located to maximize day lighting and reduce the need for indoor lighting.



Construction Site

- Scrap dry wall, wood waste, and cardboard should be source separated and recycled. (RDCS point criterion)
- Use low to zero emission volatile organic compounds (VOC) and adhesives if possible. (RDCS point criterion)
- Use certified Forest Stewardship Council (FSC) plywood. (RDCS point criterion)
- Use building insulation with minimum 25% recycled content. (RDCS point criterion)

A. Planting Areas & Hardscape Design

Intent: Encourage the use of planting and hardscape to embellish property.

- All un-paved areas should be landscaped with ground cover and/or shrub plant material, and undeveloped areas proposed for future expansion shall be landscaped with appropriate ornamentals, to include ground cover, shrubs and/or trees.
- The Community Development Director may authorize a delay in the installation of required landscaping or a required deposit because of water shortages or any other extreme weather condition.
- All open parking areas should be landscaped except those areas specifically used for vehicle maneuvering and parking. Landscaping should include trees, shrubbery and ground cover or other approved hardscape materials. Such landscape areas should be provided with automatic sprinkler systems.
- Finishing treatment such as bark or mulch may be provided as an alternative to groundcover, as long as it is not designed to be a major part of the landscape.

Landscape Design



- Where parking areas and drive aisles directly abut a building, a landscape strip (minimum width of 4') should be provided between the building and parking/paved areas visible from public street and/or between the fences and property lines which are visible from the public street. Where entries, plazas, and arcades are adjacent to the parking/paved area, no landscape strip is required.
- Landscape planters should be provided at both ends of a row of spaces with the planter area length equal to the adjoining parking spaces.
- Plant selections shall be in accordance with Chapter 18.73 Water Conserving Landscapes. (RDCS)
- Landscaping methods, such as xeriscape landscaping, that employ drought-resistant plants in an effort to conserve resources, especially water, is encouraged.

A. Planting Areas & Hardscape Design (Continued)

- Sidewalk placement should be consistent with street standards set forth in the Subdivision Ordinance, Chapter 17.34 of the Municipal Code and the Public Works Department Standards Manual.
- Landscaping should be used to:
 - a) Define areas such as building entrances, focal points, and the street edge.
 - b) Provide screening for unattractive/unsightly service areas
 - c) Serve as buffers between neighboring uses.
- A minimum 5' wide planted parkway should be provided on arterial streets between the street and sidewalk. Parkways should be planted with shade trees that are consistent with the City's Street Tree program to provide a more pleasant pedestrian environment and contribute to streetscape continuity. Street trees should also be planted in the landscape area between the sidewalk and any adjacent wall/fence.
- Planting areas should be designed to capture storm water through swales and dry wells.



A combination of plant materials shall be incorporated into the landscaping design.



Flowering trees are encouraged to enhance landscaping and add color to the site.

- Planting palettes should use a variety of height, textures, and colors.
- A combination of trees, shrubs, and ground cover should be incorporated into landscaping plans. Minimum sizes are as follows:
 - a) Trees: The minimum number of trees to be provided in any parking area should be one for each four parking stalls. The minimum size of tree, when planted, shall be 15-gallons.
 - b) Shrubs: 5-gallon.
- Trees and shrubs should be located and spaced to allow for mature and long-term growth. Trees and shrubs should be selected to minimize root problems.
- To the extent possible, landscaping along street frontages should coordinate with adjacent properties to provide a consistent visual corridor.

A. Planting Areas & Hardscape Design (Continued)

Landscaping Design

- The use of interlocking pavers is encouraged in place of stamped concrete in parking areas.
- Walkways should be provided through landscaped areas along paths of likely travel
- The use of inert materials such as fieldstone, stone, and wood are encouraged for paving and wall treatments to protect landscaping from foot traffic.
- Within private landscape areas, pervious hardscape coverage such as decorative paving, wood decking, decorative stone and similar non-irrigated areas is highly encouraged on at least 15% of the landscape area. (RDCS scoring criterion)



Example of a pervious walkway through a landscaped area

- In areas of rapid soil permeability pervious pavement is encouraged in construction of open parking lot areas, driveways and sidewalk areas to minimize drainage runoff. (RDCS scoring criterion)
- Variation in pavement type paving should be used to differentiate pedestrian travel areas.

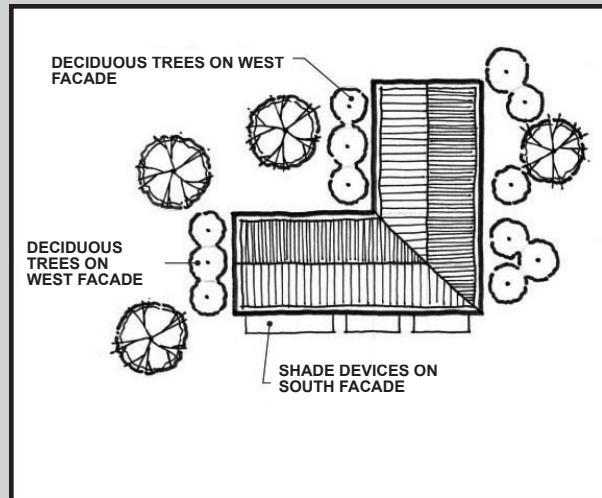
B. Use of Trees

Intent: Provide a shady tree canopy in neighborhoods and create pedestrian scale along streets.

- Canopy trees should be strategically used in parking areas to reduce the impact of large expanses of paving, provide shade, as well as reduce glare and heat build up.
- Trees located around the perimeter of the site should have a 30' to 40' canopy potential and be sized at 24"box or larger at time of installation.
- 24"box-size trees, including street trees from a city approved list, with a minimum height of 9' and a spread of 3-4' are encouraged. The 24"box-size trees should be provided within the development at a ratio of one 24"box-size tree per ten trees provided within the landscape area to be installed by the developer. (RDCS point criterion)
- Larger/older trees should be planted to assist new development in looking "established" as quickly as possible.



Multiple tree species create a unique landscaping and help to add privacy by visually screening residences.



Deciduous trees and shading devices should be used to provide summer shade and allow solar access during winter months.

- Trees should be planted on both sides of the sidewalk within the landscape area along arterial streets.
- Top pruning should not be used on trees.
- The use of native oaks and other California natives in appropriate locations is strongly encouraged.
- Evergreen trees should be used to soften the appearance of blank walls and provide visual screening, but should not be a replacement for enhanced architecture.
- Deciduous trees should be used to provide solar control during summer and winter, provide fall color, and seasonal flower.
- Flowering trees should be used to provide color and accentuate entrances.

C. Project Entry

Intent: Encourage well thought out project entries.

- A combination of the following accent features should be incorporated into the project entry:
 - a. Standard ornamental landscaping
 - b. Landscaped medians
 - c. Architectural monuments
 - d. Decorative walls
 - e. Enhanced paving.
- Project entry features should reflect the overall architectural identity and character of the project.



Entries should include landscaping, textured paving, signage, and materials that complement the architectural style of the project.



- Directory signs containing site plans of the development with building addresses or numbers should be provided at the main pedestrian entrance.
- Project icons, thematic pilasters, special paving treatment, and specialty landscaping should be used to unify a project.
- The use of colored, textured, and permeable paving treatment at entry drives is encouraged to accentuate



The pedestrian entry to this development is well defined with addresses clearly posted on a trellis entry feature.

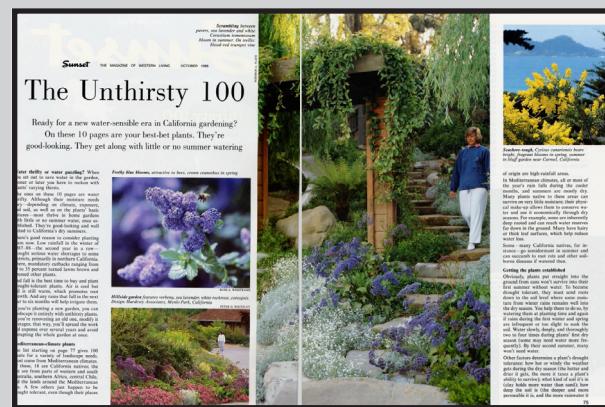
D. Irrigation & Water Conservation

Intent: Promote water conserving planting design.

- Water conservation techniques should be incorporated into all landscape plans in accordance with Chapter 18.73 Water Conserving Landscapes. Examples of these techniques include automatic controller, drip irrigation, or matched precipitation rate sprinkler heads. (RDCS scoring criterion)
- All front yard landscaped areas should have automatic irrigation systems installed to ensure plant material survives.
- Irrigation systems should be designed to prevent overspray onto walkways, parking areas, buildings, and fences.
- Plants should be grouped in high and low hydrozones and coordinate with irrigation plans to minimize use of water and the laying of irrigation tubing.
- Irrigation systems should be designed to apply water slowly to allow plants to be deep watered and reduce runoff. Drip systems should be used in all areas except turf irrigation and small ornamental planting.



Example of native plant grouping that requires little water.



Sunset Magazine's guide for water conservation

- Use of a separate water source (e.g., existing on/off site well, import or recycled water) to irrigate common area landscape areas and front yard areas that are maintained by a homeowners association is encouraged. (RDCS scoring criterion)
- Landscape designers are encouraged to refer to "Water-Conserving Plants Landscapes for the Bay Area," published by the East Bay Municipal Utility District for a listing of water conserving trees, shrubs, and groundcovers. Other publications include "Success List of Water Conserving Plants and Select California Natives" published by the Saratoga Horticulture Foundation, and Sunset Magazine's "The Unthirsty 100", and "Trees & Shrubs for Dry California Landscapes" by Bob Perry.
- Landscaping planted directly below the eaves or at a rain gutter outlet shall be sturdy and have a subsurface matrix of roots to tolerate heavy sheet flow and periodic saturation.
- Use of indigenous and low water plants in conjunction with an efficient water system, such as drip irrigation, is strongly recommended.

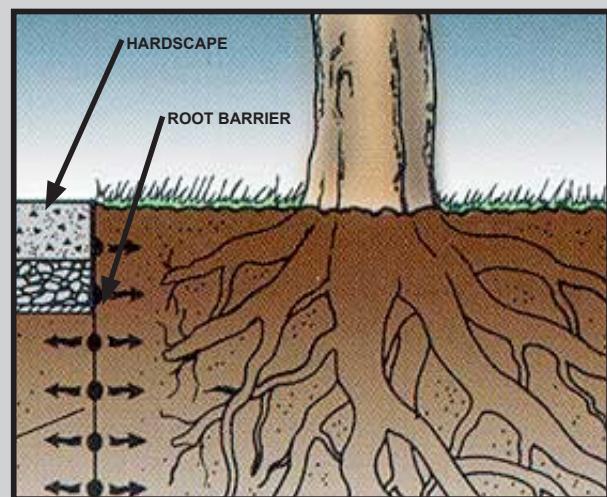
D. Irrigation & Water Conservation (Continued)

- Provide root barriers or structural soil when trees are planted 5' or closer to any hardscape element (including curbs, sidewalks, or any other paving) or building. The distance should be measured from center of tree trunk to edge of nearest hardscape or building.
- Sprinkler heads in areas of high foot traffic should be “pop-up” style.



Example of a pop-up sprinkler head.

Landscape Design



Root barriers should be used to prevent cracking of hardscape surfaces.

- Landscape planting should provide an effective contribution to crime prevention. Shrubs that create hiding places should not be placed in areas of pedestrian movement such as along walkways and building entrances and trees should not be placed too close to unit.
- Shrubs that deter pedestrian movement should be placed under windows.



E. Walls & Fencing

Intent: Minimize impact of walls along streets.

- Sound walls located along public streets should be offset with an average setback of at least 20' and a minimum setback of 15', measured from the face of curb. Offsets should be a minimum of 5' deep every 50' to 75', depending on the length of the wall.
- Fences placed adjacent to a street shall be screened with a landscape buffer:
 - a. Minimum 20' (measured from curb) landscape buffer along arterial streets.
 - b. Minimum 10' (measured from curb) landscape buffer along interior streets.
- Perimeter walls should be architecturally treated on both sides and shall incorporate landscaping whenever possible.
- All fences and walls required for screening purposes should be of solid material.
- Fences and walls should be constructed as low as possible (maximum 7') while still performing their screening, noise attenuation, and security functions.
- Fences and walls should be designed to complement project architecture.



Natural materials, pilasters, and a contrasting cap have been used to create an aesthetically pleasing cap.



A pilaster, cap, and recessed elements for landscaping to enhance this screening wall.

- Chain link or similar metal wire fencing with slats is prohibited in multi-family developments.
- Walls on sloping terrain should be stepped to follow the terrain.
- To bring continuity to the overall street scene, similar elements such as columns, materials, and cap details should be incorporated on perimeter walls that transition from one development to another.
- Fences and walls should be finished and designed to complement project architecture and planted with vines, shrubs and trees.

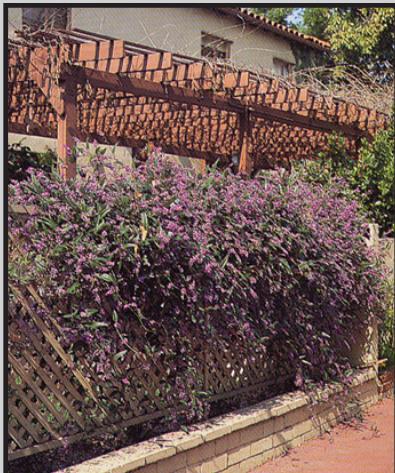


Walls Should be Designed to Complement the Character of the Site

F. Screening

Intent: Encourage effective screening solutions.

- A minimum 15' of landscaped setback should be provided for parking lots adjacent to the street edge. Screening in such setbacks shall include one or more of the following:
 - rolling earth berms (2:1 slope maximum)
 - low screen walls
 - changes in elevation
 - landscaping
- Walls and fences should be planted with vines, shrubs, and trees.
- Any outdoor equipment on a roof, side of a structure, or on the ground should be screened from view.
- Screening should be architecturally integrated into the structure in terms of materials, color, shape, and size.



RECOMMENDED - A wood fencing, a low wall, vines and a trellis structure create an attractive screening solution.



NOT RECOMMENDED - A chain link fence with wood slat is not a permitted screening material.

- Chain link fencing with wood inserts shall not be used to screen storage facilities or utilities.
- A combination of elements including solid masonry walls, berms, and landscaping should be used to screen objects at the ground plane.
- A combination of elements including solid masonry walls, berms, and landscaping should be used to screen objects at the ground plane.



Shrubs and trees help to screen this sound wall.

F. Screening (Continued)

- All areas utilized for parking, storage or loading should be screened, modulated or integrated from view of access streets, freeways, or adjacent properties. This may be accomplished by employing one or all of the following techniques:
 1. Trees should be planted adjacent to structures on-site, one tree for each 30 linear feet of the combined length of the rear and both side wall dimensions of the structure. Minimum size should be 15-gallon
 2. Major-scale trees may be linear or en masse. This method requires use of trees that will ultimately provide foliage that is visible above the roofline from within the site.
 3. Linear or group masses of small-scale trees; this method requires use of trees that will ultimately provide foliage or shade pattern on either horizontal or vertical planes.
- Landscaping, when used as a screening device, should be of a type which provides a year-round barrier, and should be of trees and shrubs spaced so that any view of objects on the opposite side is effectively eliminated.



A combination of wall, berm, and landscaping, screen this parking area

- A fence or wall, when used as a screening device, should be of solid wood or masonry so constructed as to effectively eliminate any view of objects on the opposite side below the maximum height of the required fence or wall; if a grill is installed, it may be built with a uniform screen or with an open-work design. Fences and walls shall be landscaped and modulated to provide visual relief to continuous wall or fence surfaces.
- Where a residential district adjoins an existing parking lot or non residential zoning district, it should be separated by a solid masonry wall not less than 5' nor more than 7' in height.
- All outdoor storage for goods, materials, commercial vehicles or equipment should be visually screened as appropriate.

G. Lighting

Intent: Encourage appropriate lighting that will minimize glare issues, yet improve safety.

- All lighting, including security lighting, should be shielded to minimize glare upon neighboring property and public rights-of-way in compliance with Sections 15.40.310 and 15.40-420 of the Municipal Code. The shield should be painted to match the surface to which it is attached.
- Parking areas should have lighting capable of providing adequate illumination for security and safety. Lighting standards should be energy-efficient and in scale with the height and use of the on-site structure(s). (RDCS scoring criterion)
- Light fixtures should be architecturally compatible with building design.
- Height of lamp poles should be appropriate in scale for the building or complex and the surrounding area, maximum of 15' high.
- The quality of light, level of light measured in footcandles, and type of bulb should be consistent with the Municipal Code requirements.



Light fixtures should complement the architectural style of the buildings.



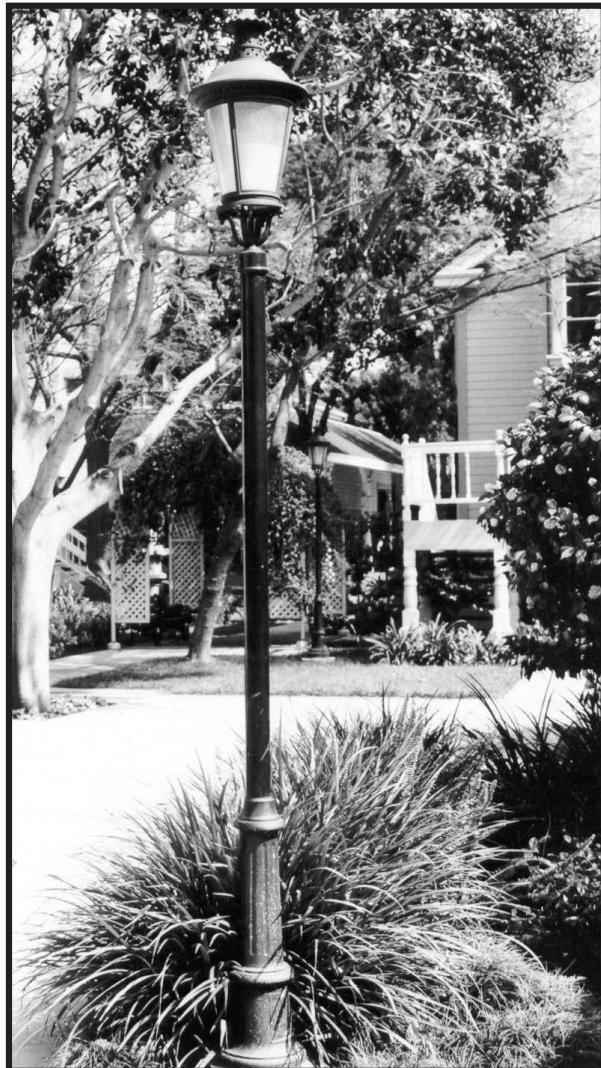
Pedestrian lighting should be shielded and a maximum of 15' high.



- All building entrances should be well lighted with a minimum of five (5) footcandles.
- Aisles, passageways and recesses related to and within a building complex should be illuminated with an intensity of at least twenty-five one-hundredths (.25) footcandles at the ground level during the hours of darkness.
- Walkways should be illuminated with a minimum of one (1) footcandle to ensure safe nighttime conditions.
- Parking lots, carports and access thereto should be illuminated with a minimum of two (2) footcandles of lighting. (RDCS point criterion)
- Pedestrian light poles along sidewalks or pathways should be 12' to 15' high.
- The design of parking lot lighting fixtures should be compatible with the architecture used in the development.
- Lighting fixtures should not project above the fascia or roofline of the building.

G. ***Lighting (Continued)***

- Security lighting fixtures should not be substituted for parking lot or walkway lighting fixtures.
- Lighting devices within parks and open space should be protected by vandalism-resistant covers.
- Lighting of building elements and trees are effective and attractive lighting techniques that are encouraged; however, light sources for wall washing and tree lighting should be hidden.
- Low-voltage / high efficiency lighting should be used in the landscape whenever possible.
- Incorporate timers and sensors to avoid unnecessary lighting.
- Lighting levels should not be so intense as to draw attention to the glow or glare of the project site.
- The latest lighting technology should be used to minimize the brightness of lighting.
- Up-lighting of trees is strongly encouraged to accentuate branch structure, foliage and form. Up-lighting should use commercially available fixtures specifically designed for this intended use. LED fixtures are preferred but not required due to the low energy consumption and heat source properties. Lighting should be installed to reduce unnecessary glare by utilizing shrouded fixtures or glare reducing devices.



Decorative pedestrian lighting enhance these developments.