*Amended on September 9, 2022*

# Sacramento County

## Countywide Design Guidelines and Case Studies

Adopted by the Board of Supervisors
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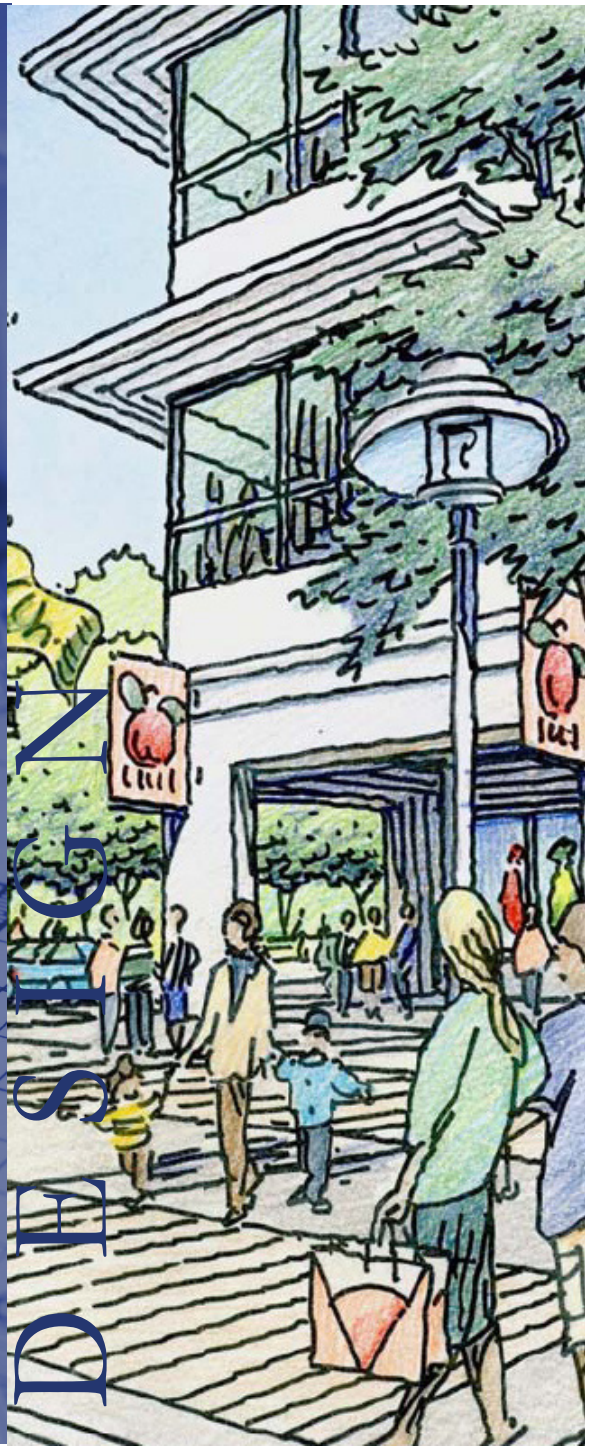
COUNTYWIDE DESIGN GUIDELINES



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# Sacramento County
# Countywide Design Guidelines

**Board of Supervisors**

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# Table of Contents





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# 1.0 Introduction

Sacramento County is made up of nearly 1,000 square miles encompassing a diverse mix of landscapes from the very western portion of the foothills of the Sierra Nevada Mountains to the scenic and biologically diverse lowlands of the Sacramento River Delta. In total, approximately 1.45 million people call Sacramento County "home" with a significant number of those residents residing within one of the many established communities of the unincorporated area. The established communities that make up the unincorporated County offer distinguished housing for every lifestyle –urban lofts, suburban family homes, executive housing and rural farms and ranches – along with a wide variety of parks, open space and recreational, commercial, industrial and institutional uses. With its ideal climate, astounding tree canopy, and expansive outdoor recreational amenities – including the 32-mile American River Parkway – Sacramento County provides a quality of life that is highly desirable.

The robust economy in the unincorporated Sacramento County is expected to grow significantly, attracting notable companies and a related workforce. With our existing communities and the anticipated growth, Sacramento County recognizes the importance to plan and develop land use regulations that reflect our value for high quality, sustainable and healthy community design. The three main objectives are to: achieve high standards for the quality of the built environment; advance sustainable development and provide business and user friendly practices. The expectation for these guidelines, in conjunction with our Design Review Program, is to foster more sustainable and healthy communities that improve the overall quality of life for all County residents. These guidelines, and the community discussion that guided their preparation, demonstrate this commitment.

# 1.1 Purpose of Countywide Design Guidelines

These Countywide Design Guidelines provide consistent design principles to implement the County General Plan. They have been developed to encourage high quality development that strengthens the economic vitality of all areas of the County. The purpose of these guidelines is to create design recommendations and standards for review of projects that are easy to understand and will result in well-designed and sustainable projects that raise the overall design quality of development occurring within the County. They encourage active transportation and transit supportive development in appropriate locations and anticipate new types of opportunities where commercial and residential uses could be developed into new village centers that provide social and economic focus to the surrounding neighborhoods.

The Guidelines emphasize projects[1] that contribute to the health of our residents and the beauty of our established communities within the unincorporated area. Further, they ensure that new development compliments the character of the surrounding area. In other words, the objective is to require new projects to contribute and enhance the existing and future surrounding community. This shall be done while accommodating the future vision of pedestrian friendliness, where pedestrians and bicyclists feel safe and comfortable, particularly in commercial and business districts. These guidelines inform development and redevelopment in ways that are environmentally conscious, economically sound, and which provide community-wide benefits. When these guidelines are properly applied to projects, we achieve quality design, while also improving the individual and community's health, safety and livability.

These guidelines integrate development approaches to design and build healthy, sustainable, and inclusive neighborhoods. They promote a clean and safe environment, a strong economy, and good quality of life for all residents. They integrate Urban Greening, which is a systems approach to plan, plant, care, and manage flora, structures and spaces, which lead to increased forest canopy, reduced storm water runoff, improved air and water quality, energy conservation, open space and ultimately, more sustainable communities. The guidelines incorporate a broad spectrum of sustainability practices that include: 1) green building and construction which can facilitate sustainability by generating jobs, 2) increasing energy efficiency, water conservation, air quality and waste reduction, and 3) improving housing quality and the physical environment. Sustainable design guidelines promote use of solar, cool roofs, tree shading, green streets, urban greening, low impact development storm water features using River Friendly Landscaping, and more.

[1] As used in this document, a project is defined as any proposed action that requires approval by the County and is subject to the County Zoning Code and these Design Guidelines.

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

Promoting active transportation, including walking and biking, along with improving access to transit, lowers household transportation costs, reduces greenhouse gas emissions and air pollution, decreases traffic congestion and encourages development of jobs, housing, services and other amenities in close proximity to each other. Sustainable practices also accommodate the changing weather patterns and provide relief on the increasing hotter and drier days, while also capturing and infiltrating storm water from storm events. These sustainable practices contribute to building healthy communities. The most important part of building sustainable communities is creating neighborhoods that are healthy. That is why the County is calling out "Active Design" with this icon in the design guidelines.

Throughout the Guidelines, standards and policies that incorporate active transportation and contribute to a built environment that supports public health have been highlighted with the walking person icon. The purpose of this icon is to identify "Active Design." Active Design shall be incorporated into all projects in order to reinforce the community's and County's goal to create a built environment that is healthy, sustainable, livable and promotes active transportation choices such as walking, bicycling, and accessing transit. There are many factors of the built environment that influence healthy choices and no single aspect of design can achieve this goal; however, by incorporating Active Design strategies into the built environment, physical activity and improved health can be achieved. More information about the synergies of the guidelines that support active design can be found in Appendix D.

The guidelines and standards outlined in the following sections have been based on national best practices in implementing design solutions and successful examples of guidelines from other jurisdictions. The Guidelines facilitate design review by helping applicants and County staff to identify major design issues and devise solutions early in the application process. In summary, the design guidelines are provided to:

1. Implement the objectives, policies and tools of the County General Plan and Housing Element;
2. Supplement and implement the contents of the County Zoning Code on matters of design and aesthetics;
3. Enhance, protect and maintain the value of property;
4. Enhance, maintain, and preserve community identity and quality of life;
5. Promote compatibility between new and existing development;

6. Promote a positive physical image for all types of development;

7. Promote a high quality of development that stimulates investment in and strengthening of the economic vitality of all areas of Sacramento County;

8. Improve community planning and design to promote healthy living and to balance integration of social, economic, and environmental concerns.

9. Utilize sustainable strategies in site design, building design, and landscaping;

10. Facilitate a clear and efficient design review process;

11. Provide guidance to the development community, architects/designers, property owners, and County staff; and

12. Provide for and maintain the health, safety, livability and welfare of all citizens of the County

## 1.2 APPLICATION

The Countywide Design Guidelines are a part of a structure of policy documents that guide development in Sacramento County. The Sacramento County 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 Sacramento County Zoning Code and Countywide Design Guidelines are implementing tools of the General Plan and Housing Element, and apply to all properties in unincorporated Sacramento County. The Zoning Code presents development regulations specifically applicable to new projects or substantial improvements to existing projects. The Guidelines are intended to supplement the Zoning Regulations with design criteria that supports and implements the goals and policies of the County. Design Guidelines adopted as part of Specific Plans and Master Plans generally supersede the Countywide Design Guidelines when they provide more robust direction.

When it has been determined that a project is subject to design review as outlined in Section 6.3.2.A of the County Zoning Code and elsewhere in these chapters**,** the design review process begins with either an application for one or more entitlement to the Office of Planning and Environmental Review (discretionary

projects), or can occur prior to building permit with a Design Review Application (non-discretionary projects). In either case, project proponents are encouraged to meet with the Design Review Administrator (DRA) for a pre-application conference and review of project context. This early review can inform the process and allows project proponents direct access to the DRA and associated design review process early on.

Once an application has been made, depending on whether it is a discretionary or non-discretionary project, the overall process could vary. For discretionary projects, design review will coincide with and be woven into the normal development process, which includes: review by the Project Review Committee (or PRC: a technical advisory-body that provides conditions of approval, review regarding technical requirements of projects, and/or troubleshooting various issues), environmental review, potential design review with input from the Design Review Advisory Committee (or DRAC: an advisory body made up of three members intended to make recommendations on a project's overall design), and ultimately review by the appropriate hearing authority. The design review process for discretionary or non-discretionary projects is further defined as follows:

Discretionary projects are those projects that would require one or more entitlements or approvals, such as a rezone, conditional use permit or a special development permit. Prior to submittal, project applicants with discretionary projects are highly encouraged to meet with the Design Review Administrator (DRA) for a pre-application conference and context review. After the applicant submits their application, it is reviewed for consistency with the Design Review Guidelines by the DRA. During this review it is submitted to the Project Review Committee (PRC) for comment and review. Once PRC has been completed and initial review by the DRA is completed, the project is submitted for review before the Design Review Advisory Committee (DRAC). The DRA and DRAC prepare Design Review Guidelines conformance recommendations to be included in the project staff report to the reviewing authority. The reviewing authority may use the DRAC recommendations to apply conditions of approval to the project.

Non-discretionary projects are those projects that **do** not require a discretionary permit. These include projects that are consistent with the applicable zoning district in planned use and development standards and propose new construction, or exterior remodeling. Non-discretionary project applicants are highly encouraged to meet with the DRA in a pre-application conference to determine what is

expected of their project and to receive a preliminary determination of Design Review Guidelines conformance. The project's Design Review Application should include required preliminary plans and a design review checklist. It is advisable that the design review process occur before the filing of a building permit application with the Building Permit Division. The project is reviewed approved by the DRA for conformance with the Design Review Guidelines, acting under the authority of the Planning Director. For major projects, review by the PRC may be required during the review and approval process. Design Review Approval is required before issuance of building permits.

The design review process rewards projects that meet the criteria outlined in these Guidelines. These projects will move faster through the process, requiring fewer review meetings. As noted, the design review process runs concurrently with the development review process and is not intended make the process lengthier unless the project does not meet the Guidelines.

The Design Review Guidelines operate at three levels of development: New Community Design, District Design, and Project Design. The New Community level of development is described in Section 7.0 and deals with comprehensive development of more than 50 acres. District level of development deals with comprehensive development areas containing multiple development sites. Project Design level of development deals with individual building design. At each of these levels of development elements of Sections 2.0; 3.0; 4.0; 5.0; and 6.0 are applicable to satisfy Design Review compliance.

## 1.3 ORGANIZATION

The Guidelines are organized in chapters according to major land use categories. Each chapter is organized into topic areas structured with a design principle, rationale, and guidelines and standards supporting each principle. Design guidelines reflect the County's design objectives and are general rules to be incorporated into design solutions. A glossary of terms used within the document is included, as well as a summarized design review checklist to help track the overall success of a given project in meeting the intent of the guidelines, and various case studies. Accompanying drawings, illustrations and photographs are intended as examples to a range of design solutions. These examples should not be looked upon as the only design solution. Creativity and innovation in design is encouraged.

# 2.0 Single-Family Design Guidelines

The primary goals of the Single-Family Guidelines are to ensure that new single-family development is a positive addition to the community and achieves the highest resident quality of life, whether in new or established neighborhoods. Single-family housing shall adhere to the applicable standards of the Zoning Code, unless alternatives can be justified by provisions of these Design Guidelines.

Single Family Design Review is based on three different areas of focus – Neighborhood Site Design, Building Design, and Landscaping/Site Elements.

Design Review Approval shall be applicable as follows:

1. For Subdivisions of 20 lots or more (new and previously approved tentative subdivision maps) and at a density of 8 dwelling units per net acre or less. Neighborhood Site Design Guidelines (Section 2.2) will be reviewed with the tentative subdivision map. Design Review of Building Design and Landscaping (Sections 2.3 and 2.4) is required, and may occur after the approval of the tentative map, but must occur prior to submittal for a building permit. Design Review of Building Design and Landscaping may be based on conceptual or illustrative drawings.

2. For Subdivisions at a density greater than of 8 dwelling units per net acre. Design review for Site Design, Building Design, and Landscaping (Sections 2.2, 2.3 and 2.4) is required concurrent with consideration of the tentative subdivision map.

3. For Subdivisions of less than 20 lots and at a density of 8 dwelling units per net acre or less, for custom lot subdivisions, and for tentative parcel maps. Neighborhood Site Design Guidelines (Section 2.2) will be reviewed with the tentative subdivision or parcel map. Design review for Building Design and Landscaping (Sections 2.3 and 2.4) may be required as a condition of approval in order to achieve General Plan objectives. The conditions of approval may specify the design objectives particular to the project (e.g. privacy to adjoining properties) to be evaluated prior to issuance of a building permit.

The three scenarios above are illustrated in the following matrix. The matrix also includes cases when Design Review is not applicable, unless as a condition of approval. Modular homes or homes manufactured off-site and built on-site shall also be subject to the standards applicable to single family residential development, including the Design Review process described in this section. Refer to Section 5.4.2.E of these guidelines related to cargo containers used as residential structures. Mobile or manufactured homes are also permitted in some single family residential districts and shall be subject to the use standards for mobile/manufactured homes and the development standards for mobile home subdivisions in the County Zoning Code.

DESIGN REVIEW FOR SINGLE-FAMILY RESIDENTIAL PROJECTS OR LOT DIVISION REQUESTS:

**KEY:**
**B**: Design Review required prior to building permit submittal
**M**: Design Review required with map approval
**COA**: Design Reivew required only if condition of approval. Review is triggered prior to building permit submittal.
**NR**: Design Review is not required.

| ***Residential Development and Lot DivisionScenarios [1]*** | ***Site Design/ Plot Plan*** | ***Building and Landscape Design*** |
|---|---|---|
| Residential subdivisions 20 lots or more, zoned RD-10 or greater. | M | M |
| Residential subdivisions 20 lots or more, zoned RD-7 or less. | M | B |
| Residential subdivisions less than 20 lots, custom lot subdivisions, and all other lot divisions not withing a single-family residential zoning distirct | M | COA **[2]** |
| New homes on existing lots, remodels, additions or Accessory Dwelling Units (ADU) | NR | COA |

**[1]** If proposed residential development or other lot division request is in coordination with a rezone, the requirements for Design Review will be determined based on the proposed zoning designation.
**[2]** Building and landscape design proposed after a lot division within a non-single-family residential zoning district is approved, pursuant to Section 6.3.2.A, requires a Design Review regardless of Conditions of Approval.

The process for using these design guidelines is to:

A. Review the Community Context / Neighborhood Compatibility Type (Section 2.1)

B. Respond to Neighborhood Site Design Standards (Section 2.2)

C. Apply the Building Design Standards (Section 2.3)

D. Apply the Landscape / Site Elements Design standards (Section 2.4)

E. Apply Active Design Principles as designated by the "" icon throughout Chapter 3.0

Design Review Submittals for Building Design shall include the following exhibits:

1. Conceptual Building Elevations of proposed homes, and any accessory structures, including elevations of all sides.
2. Illustrative Landscaping Plans for the front and side street yard areas, including irrigation plans. Landscaping Plans may be submitted concurrent with Water Conservation Plans.
3. Illustrative Fencing Details for the front and side street yard areas.
4. Landscaping and Fence Details for public areas.
5. Streetscape Drawings, showing a continuous portion of typical street frontage elevations and a three-dimensional streetscape view showing relationship to adjoining properties.

The County Design Review process is separate from any Homeowner Association architectural review process, and it does not take into account Covenants, Conditions, and Restrictions (CC&Rs) that may be applicable to some neighborhoods.

# 2.1 COMMUNITY CONTEXT

The County General Plan encourages infill of existing communities consistent with existing Community Plan and zoning designations, while striking a balance with the need to design new residential development that is compatible within the context of the project's surroundings. The County General Plan and these Guidelines encourage continued investment in existing communities and recognize that new investment must often respond to market needs that may not be the same style and design as the existing neighborhood. These Guidelines seek design strategies to ensure new projects blend in with and complement their surroundings, and simultaneously enable property owners to develop at zoned densities. Innovation and creativity are encouraged to achieve highly livable neighborhoods.

An analysis of the appropriate community context within which a given project occurs is the first step in assessing appropriate design strategies for residential neighborhoods that meet the compatibility and livability goals of the Sacramento County General Plan.

*A major goal of the Single-family Guidelines is to help single-family development be context sensitive and fit within its surroundings.*

# 2.2 NEIGHBORHOOD SITE DESIGN

**Design Principles**

The land use planning for tentative maps involve decisions affecting street layouts, lot configurations, connectivity, and parks/green spaces. This section identifies design guidelines for creating livable communities and at the same time reducing potential land use conflicts.

**Rationale**

Subdivision design deals with neighborhood compatibility, the public and private realm interface and meeting the livability goals of the County General Plan at both the community scale and internal subdivision scale.

Good site design is an inherent part of good neighborhood design. Site Design addresses street and block patterns, lot configurations, a home's orientation and massing, and the overall layout with regard to its lot. For projects subject to design review per Section 2 in existing neighborhoods, the site design should respect the existing context where preservation of this context is a community goal.

**General Design Standards and Guidelines**

- Each project that proposes to divide land should result in lots that are consistent with and well suited to the land use designations and policies set forth in the General Plan and in any adopted community plans, including both maps and text. Potential population densities of residential lots should not exceed the densities set forth in the General Plan or community plans, unless otherwise specified in the Zoning Code.
- In areas with topography, the design of the project should preserve natural contours where the natural topography is the predominant character of the area. To achieve this purpose, grading restrictions or building location restrictions may be placed on the final map.
- Where heritage and other healthy large canopy trees exist, steps should be taken to preserve and plan around them consistent with General Plan policies on tree preservation.
- Smaller lot sizes than that allowed in the underlying zoning district may be permitted so long as the average of all the lot sizes remain equal to or above the minimum zoned lot size.

## 2.2.1 Subdivision Street and Block Patterns

**Design Principles**
Street and block patterns of new subdivisions should closely resemble the surrounding context in most cases, but poor design should not be repeated. Connections should be provided between new subdivisions and adjacent neighborhoods by streets as well as parks, open space systems and pedestrian/bike paths. Lot and block patterns should consider constraints such as topography and existing mature trees.

**Rationale**
Street and block patterns, and lot configurations are key contributors to the neighborhood fabric and character. Appropriate small-lot single-family subdivision design that fits the context and surrounding neighborhood helps maintain property values, increases the safety and security of all residents, promotes a "sense of place" and neighborly interaction, and improves mobility and quality of life for the community.

**General Design Standards and Guideline**

- Streets layout should reflect a street hierarchy consistent with the subdivisions location and internal needs. Streets shall be tree lined "complete streets" designed for pedestrian, bicycle, and vehicular use consistent with the Improvement Standards for the street's hierarchical designation. As separated sidewalks provide a safer and healthier environment for pedestrians, they are especially important where the residential street is a connection to schools, parks, or other civic amenities. The County Improvement Standards contain standards on separated and attached sidewalks.

- All street widths must meet County standards for both public and private road classifications, except where a Specific Plan or Master Plan provides for alternative street design. Alternatives to the street standards may be justified in infill situations due to topography, neighborhood compatibility or similar reasons.

- The circulation system should be logical, predictable, and designed to promote safety for all transportation modes, particularly pedestrians and bicyclists. Streets should connect to adjacent neighborhoods and provide direct access to schools, parks, community centers, and nearby retail for pedestrians, bicyclists, automobiles, transit and emergency vehicles.

- A grid or modified grid pattern to provide connectivity and walkability is the preferred street and block pattern. Modifications may be approved to match existing neighborhood context.

- Where residential subdivisions are located adjacent to an open space preserve, street and block patterns should achieve visual and physical access to open space areas.
- Street patterns that create long uninterrupted sound walls should be avoided.
- Residential streets within the subdivision design should be slower and pedestrian-oriented. Incorporate traffic calming measures such as traffic circles, chokers, enhanced crosswalks, and narrower streets.
- Block lengths should be no more than 500 feet, especially for smaller lot developments (RD-5 and higher). For blocks that exceed 500 feet in length, mid-block paseos or pedestrian paths connecting to walking paths, bicycle lanes, schools and parks should be provided to ensure the walkability within the community. Larger lot subdivisions may have longer block lengths up to 750 feet.
- Street layout shall allow for adequate fire protection of all housing.
- Existing healthy mature trees should be preserved and incorporated into site design to add to the neighborhood character.
- Cul-de-sacs that side on to through streets or greenbelts should provide pedestrian access to connect to the adjacent through street. "Live-end" cul-de-sac design should be used to complement these areas and can include landscaping and benches.
- Access walkways and/or off-street trails should be provided to community destinations such as open spaces, parks and schools, and commercial centers from the neighborhood, to enhance the pedestrian and bike movement and safety.
- Each parcel of land should front on a public street or be served by a private road approved pursuant to the Zoning Code which is a component of an approved local street pattern. Lots with homes that back onto a street are only allowed where traffic volumes render lots with homes that front onto a street as unsafe.
- Gated communities are allowed when consistent with community goals.
- Blocks should be laid out in a pattern that enables individual lots to maximize solar access so that such features as solar panels and daylighting can be incorporated into the design of the home. Layout for solar access needs to be balanced with preservation of existing mature trees and planting of new trees for shade.

- Where possible, residential streets should incorporate gently sloped swales or bio-retention areas that contain native vegetation to capture and treat stormwater. Green street practices and cool pavements shall be utilized whenever possible. Front yards, parkways, planter strips, and cul-de-sac islands are good candidates for these facilities.

- Tree planting provides many health and sustainability benefits while contributing to community design and should be designed into new neighborhoods. Tree shading will help keep neighborhoods cooler during seasonally warm days, improve air quality, conserve water and provide health benefits to the residents.

## 2.2.2 Lot Size and Configurations

**Design Principles**
Each project that proposes to divide land should result in lots that are consistent with and well suited to the land use designations and policies set forth in the General Plan and in any adopted community plans, including both maps and texts. Potential population densities of residential lots should not exceed the densities set forth in the General Plan or community plans, or unless otherwise specified in the Zoning Code.

**Rationale**
The size and configuration of building lots affects the community character and residential livability.

**General Design Standards and Guidelines**

- Each lot should maintain a relative consistency with the predominant neighborhood development character. Lots that are found to be significantly out of character, either in area, frontage, shape, or access provisions, may be denied if it is found that such character differences may result in detrimental impacts on adjacent properties.

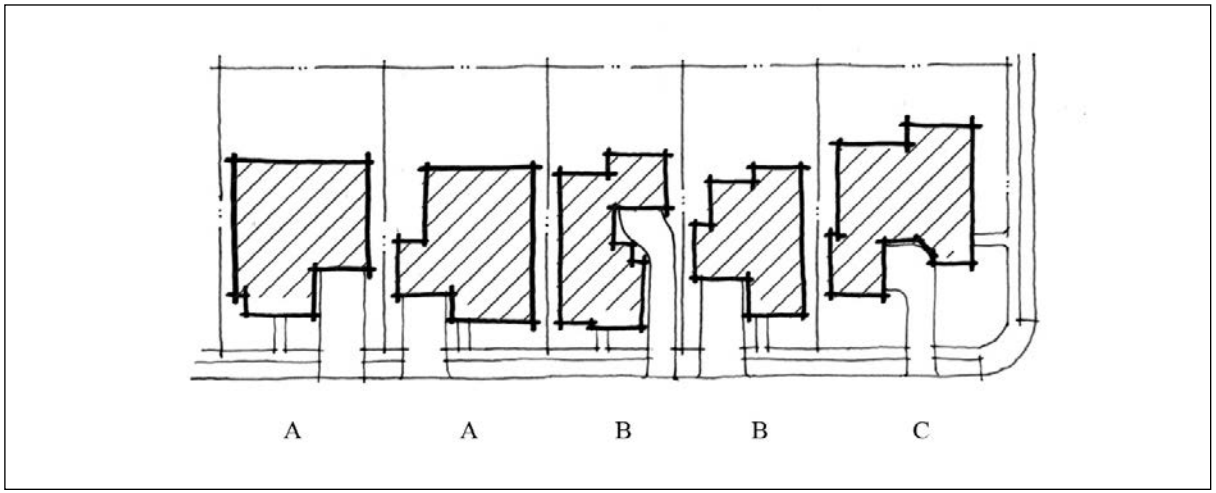
- Lot frontage requirements, as set forth in the County Zoning Code, may be satisfied in the case of lots on a curved street, the rounded end of a cul-de-sac, or on a bulb corner if the resulting lot frontage results in a streetscape and pedestrian access that meets other requirements of these design guidelines.

- Refer to Zoning Code Section 5.4.2 for lot size and width standards.

*Existing mature trees should be preserved and incorporated into site design.*


- Different interior lot widths on the same block may be acceptable along the street to create visual diversity.
- Street corners are better suited for larger and wider lots with structures that reduce the appearance of bulk and mass along the streetscape.
- Significant grade changes between lots should be gradually stepped or terraced in order to preserve natural topography to keep with community character. Grading at the property line shall be in conformance with the County Improvement Standards, with deviations from the maximum grading approved by the Planning Commission.
- Lots that back onto an arterial roadway or are adjacent to a land use with a higher intensity non-residential zoning classification should incorporate landscaped buffer areas and deeper rear yards to mitigate potential noise, air quality, aesthetics, and land use compatibility impacts.

**Figure 2.1:** Varying lot widths within acceptable range can add greater diversity to a neighborhood.




*This section identifies guidelines for creating lot patterns that are best suited to the purpose for which the lots are created and, at the same time, create the least potential land use conflicts.*

## 2.2.3 Subdivision Entry Treatments

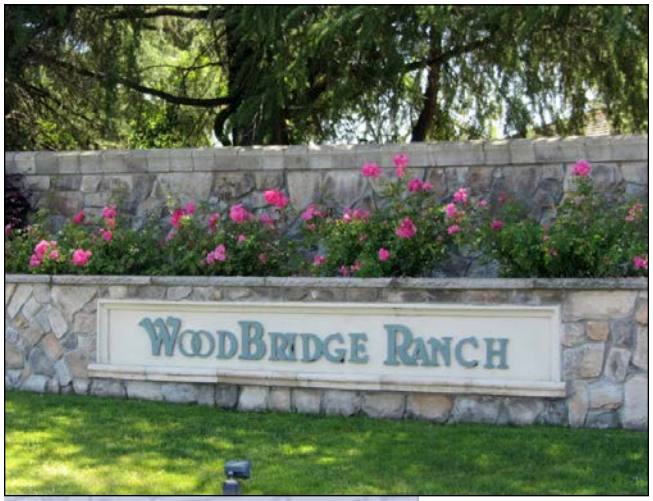
**Design Principles**

Entry features should be well thought out as to the purpose they are intended to serve and provide for visitors and residents of the particular neighborhood. Entrances to individual neighborhood segments should help establish a hierarchy to circulation within the larger development, and provide individual identity for each segment while adhering to an overarching theme for the community. Signage, monumentation and landscaping also provide individual identity and branding for neighborhoods. These features provide a distinctive "gateway" to neighborhoods that can identify the unique characteristics of the area, help to create a "sense of place" and identity, while slowing traffic and enhancing the pedestrian experience.

**Rationale**

Entry features can establish a hierarchy to circulation that helps orient visitors and residents to communities and neighborhoods.

*Well designed entries provide identity and help define access.*




**General Design Standards and Guidelines**

- Common lots intended for entry features should include sufficient space to accommodate an organized landscape theme and other improvements such as theme walls, signage, water features, public art, pedestrian amenities such as seating or enhanced walkways/trellis features, and lighting.
- Entry features should be reflective and proportional to the size of the project.
- Entry features should be treated with complementary materials, colors, and forms to contribute to a consistent and recognizable community character.
- Entry signs should include the name of the community and other appropriate identifiers.
- Entry features should be designed to establish a hierarchy to the overall circulation within the larger development.
- Vertical elements should be used to define each entry by making them clearly visible.
- Lighting should be energy efficient and integrated into entry signage and monumentation elements.
- Facilitation of ongoing maintenance of entry features should be considered when designing these spaces.
- Entry walls should include a trim cap and should incorporate pillars, openings, or recesses/changes in direction intermittently to avoid long, uninterrupted flat wall planes.
- Landscaping shall be included adjacent to a wall when open to public view and shall be used to soften and screen the hard edge appearance of the wall, consistent with Zoning Code requirements.
- Landscape trees, plants and materials should represent local vegetation and natural materials, and should be drought-tolerant (Refer to Table 2.3 and Figure 2.9 for a list of suggested native plant species).

- Entry monument walls, signage, and landscaping must comply with the required sight lines at corners for vehicles and pedestrians as set forth in the County Improvement Standards.
- Gated subdivisions shall have a controlled pedestrian access gate in addition to the vehicle entry gate. 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.
- Enhanced pavement is encouraged at intersections and at transitions between the public and private areas, and should reflect circulation needs and safety for pedestrians, bicyclists, and vehicles.
- Use of cool pavement and permeable materials is recommended, especially in pedestrian areas, walkways, driveways, patios, plazas, etc.

*Signs may be located within landscaped medians.*


## 2.3 Building Design

Building design addresses the built form of the home, along with its detailing. For projects subject to design review per Section 2, new homes in existing neighborhoods should respect the architectural style of established homes on the block.

For projects subject to design review per Section 2, new homes in existing neighborhoods may continue the trend of diversity in the existing neighborhood by bringing fresh new styles while still respecting the overall scale of the neighborhood.

Homes in new subdivisions shall have design variety but utilize a consistent design vocabulary to provide a sense of a unified neighborhood.

**Figure 2.2:** Infill homes should be built to the average front setback, where appropriate.

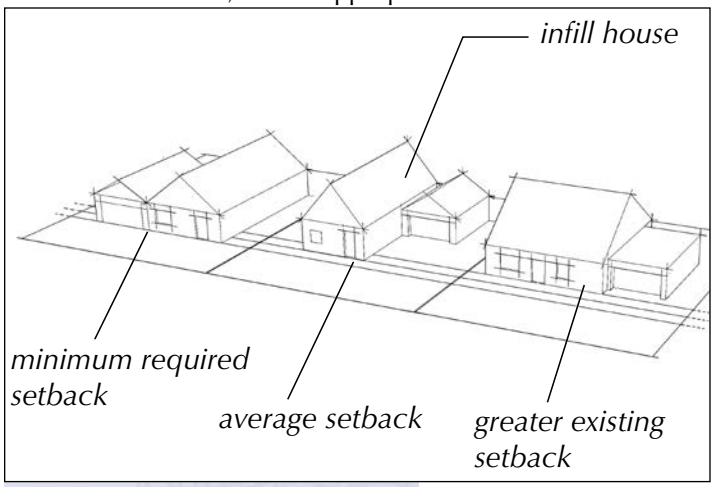



**Figure 2.3:** Front porches and entries are oriented toward the street providing visual interest and surveillance of the public realm.

## 2.3.1 Building Setbacks and Orientation

**Design Principles**

Setbacks of single-family residential buildings should be compatible with the character and setback of the homes along the street and adjacent blocks. Single-family buildings should address the streetscape by creating an interactive relationship with the public streets, sidewalks and open spaces; thereby promoting a sense of community and safety. Variable setbacks to create interest and creativity are encouraged.

**Rationale**

Building setbacks and orientation help establish the continuity and character of a neighborhood and help protect the privacy of neighbors. Appropriate setbacks provide a transition between public and private areas, allow for social interaction, provide functional spaces for outdoor activities, allow for light, fresh air circulation within buildings, and provide spaces for landscaping, trees, ground cover, and shrubs.

**General Design Standards and Guidelines**

- For single-family subdivisions, front yard setbacks along a street may vary by up to 25 percent from the required setback to create interest, but should contribute to the visual continuity of the block. Garage setbacks need to maintain a minimum 19-foot setback. Greater deviations would require a Special Development Permit.
- For projects subject to design review per Section 2, the front setback of new homes within an existing block should generally be an average of the setbacks of the other homes on the block.
- For projects subject to design review per Section 2, new structures in existing neighborhoods should reinforce the existing rhythm of building widths and side setbacks.
- Homes should be oriented toward adjacent public streets by providing features such as entryways, windows, porches, stoops, and balconies along street frontages

where views are generally not obstructed. Active spaces oriented to the street encourages social interaction by providing for access, surveillance, engagement with passers-by, and control over the public realm, increasing safety and security for the users (Figure 2.3).

- Solar access for daylighting and solar panels should be considered when orienting buildings. Glazing should be located so as to maximize energy efficiency.
- Placement of windows should also consider the cooling benefits of Sacramento's delta breezes.
- Vary the design and elevation of front porches to accommodate outdoor furniture and active uses by occupants while maintaining private yard areas
- Horizontal sliding doors on main entries are highly discouraged.

## 2.3.2 Building Scale and Massing

**Design Principles**

A single-family residential project should be compatible with the overall scale and mass of adjacent neighborhoods. Small-lot single-family housing should conform to applicable design guidelines in the Multi Family Design Guidelines 3.0. If projects are subject to design review per Section 2, new homes in existing neighborhoods should respect the overall scale and mass of other homes in the neighborhood.

**Rationale**

Scale and mass are important characteristics of buildings within single-family neighborhoods. For projects subject to design review per Section 2, new homes in existing neighborhoods and additions to existing homes should respect earlier, established building forms by minimizing the appearance of bulk and mass through site layout and architectural design. Homes in new subdivisions should be part of an overall consistent scale and mass to create a sense of unity to their neighborhood.

*The facade of this home has been broken down into smaller components to reduce the appearance of mass.*

**General Design Standards and Guidelines**

- For single-family subdivisions, provide variation in the streetscape with different heights, setbacks, and roof shapes of buildings.
- To maintain a compatible scale and massing of streetscape, provide that the rhythm, size, and proportions of openings (windows, doors) be compatible with each other.
- The mass of a larger structure should be broken down into smaller components that are similar in scale to other buildings in the neighborhood.
- Reduce the appearance of mass of the upper stories on two and three story homes.
- Facades should be articulated to break up the surface, add interest, and reduce the appearance of mass.
- Roof style and articulation should be compatible and in context with that of the subdivision or the existing neighborhood.

## 2.3.3 DESIGN FOR PRIVACY

**Design Principles**

For projects subject to design review per Section 2.0, ensure that new single-family residential buildings in existing neighborhoods or additions in existing neighborhoods and those in new residential subdivisions are designed and constructed to protect the privacy of adjacent residential properties. This principle recognizes that adjacent residential properties have the ability to construct two-story structures consistent with zoning standards.

**Rationale**

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 residential home and private yard may adversely affect the privacy of adjacent units and shall be avoided.

**General Design Standards and Guidelines**

- For projects subject to design review per Section 2.0, new two-story residential buildings directly adjacent to one-story residential buildings, should respect the privacy of adjacent one-story buildings (Figure 2.4).
- The direct line-of-sight between dwelling units, specifically bedrooms and bathrooms, should be avoided by orienting windows, balconies, and entryways so they do not directly face into adjacent property windows or private open space.
- Landscaping should be used as screening to enhance residential privacy.

## 2.3.4 Architectural Styles

**Design Principles**

For projects subject to design review per Section 2.0, building design should respect, enhance, and contribute positively to the predominant characteristic developments in the neighborhood. New homes in existing neighborhoods should be designed in a cohesive architectural style that complements the best examples of existing residential development on the block. If there is a mixture of styles on the block, then the design of infill construction may be more flexibly interpreted.

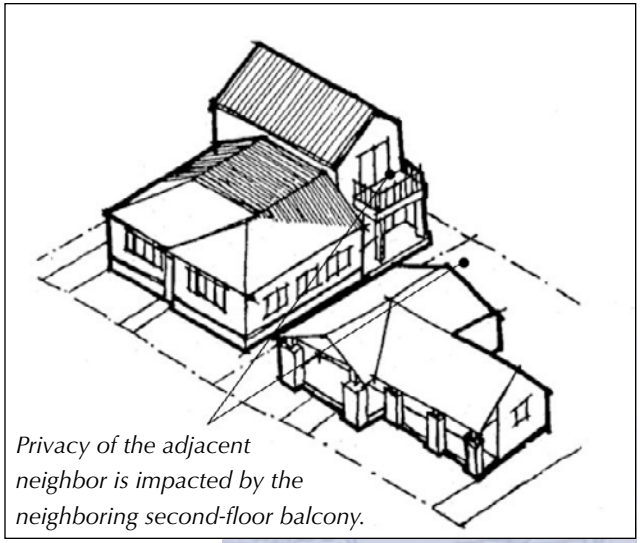
**Rationale**

Quality in detail and design contributes positively to the neighborhood. The use of cohesive, but different architectural "styles" and materials is intended to add variety to the buildings as is often found in neighborhoods that have evolved over time.

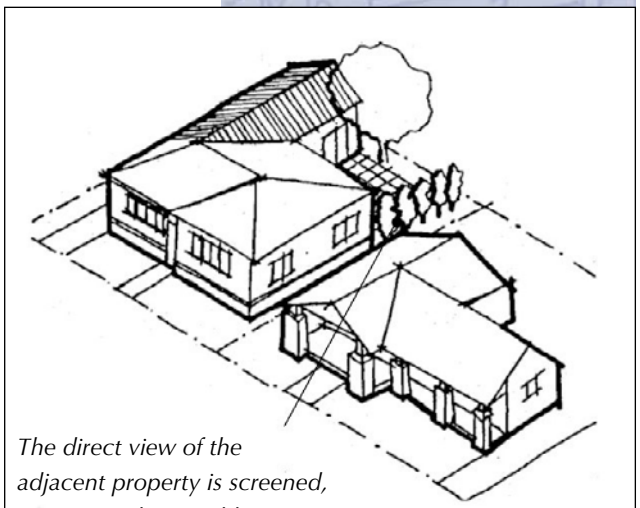
**General Design Standards and Guidelines**

- For single-family subdivisions, the building styles along the same street should be complementary and coordinated yet diverse. Variation of architectural styles along the same street is appropriate if the overall massing, form and setbacks of the homes is compatible.

**Figure 2.4:** Single-family privacy protection



*Privacy of the adjacent neighbor is impacted by the neighboring second-floor balcony.*



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

*Inappropriate, incompatible scale and mass of newer infill housing on the left as compared to the preexisting house on the right*

*Appropriate, compatible scale and mass*

- Production home development projects should provide a minimum of four different housing product types.
- New stylistic interpretations of traditional architecture are encouraged, but fundamental design principles such as proportions, scale, shapes and rhythm shall be utilized.
- Architectural features and detailing should be proportional to the scale of the home, as well as to other homes of a similar architectural style in the surroundings.
- Individual elements of a structure should be consistent with that structure's overall design or style.
- No building facade shall consist of an unarticulated blank wall or unbroken series of garage doors.
- The structure should have appropriate finishes on all sides to provide continuity. Materials should appear substantial and integral to the structure; and shall be durable so as not to readily succumb to weathering and aging. Material changes not accompanied by changes in plane appear "tacked-on" and are strongly discouraged.
- For most architectural styles, exterior colors should be in context or compatible with those in its neighborhood.
- Corner lots should present attractive facades to both adjoining streets through elements such as wrap-around porches, bays, entries, window treatments, and use of alternative materials such as brick and stone.
- Provide windows with views onto outdoor spaces for additional security and visual interest. Active uses, such as kitchens and living rooms, are encouraged to the front of the building for more "eyes on the street."
- Energy conservation strategies should be employed including window shading devices, selection of colors to reduce heat gain, cool roofs, whole house energy systems, and use of high-quality insulation materials and radiant barriers to reduce energy consumption (especially the use of air conditioning during hot summer months), to the greatest extent possible.
- Inclusion of rain gardens and rain barrels to capture roof runoff is highly recommended.
- Use of recycled paint and other quality recycled materials is encouraged.

## 2.3.5 Architectural Details

**Design Principles**
For projects subject to design review per Section 2.0, buildings should be well articulated through building elements such as the roof, entryway, windows, porches, balconies and decorative trim, which should be stylistically cohesive and proportional to the overall structure. Color, materials, and texture should convey a high-quality appearance and shall be complementary to the surrounding area. Products shall be of a quality that is durable and does not readily show signs of weathering and aging.

**Rationale**
Use of stylistically cohesive, character defining elements enhances visual compatibility and attractiveness of the building. Use of appropriate details maintains the authenticity of the building style, and can help to create a well-articulated building facade and scale.

### 2.3.5.a. Elevations and Facades

**General Design Standards and Guidelines**
- Attractive, well-articulated building facades should be created. Articulation can be achieved with windows, setbacks, entries, porches, and/or balconies. All elevations should be given design treatment with particular emphasis on those seen from the street or public way.

**Figure 2.5:** Streetscape diversity is achieved through different models and architectural treatments.

*All elevations should be treated with the same high-quality details as the front of the house.*

- Variety in use of materials is desirable. For projects in existing neighborhoods subject to design review per Section 2.0, the materials should complement existing neighborhood context.
- No building facade shall consist of an unarticulated blank wall or an unbroken series of garage doors.
- The structure should have appropriate finishes on all sides to provide continuity. Materials should appear substantial and integral to the structure; and shall be durable so as not to readily succumb to weathering and aging. Material changes not accompanied by changes in plane appear "tacked-on" and are strongly discouraged.
- For projects subject to design review per Section 2.0 and most architectural styles, exterior colors should be in context or compatible with those in its neighborhood.
- Corner lots should present attractive facades to both adjoining streets through elements such as wrap-around porches, bays, entries, window treatments, and use of alternative materials such as brick and stone.
- Provide windows with views onto outdoor spaces for additional security and visual interest. Active uses, such as kitchens and living rooms, are encouraged to the front of the building for more "eyes on the street."
- Energy conservation strategies should be employed including window shading devices, selection of colors to reduce heat gain, cool roofs, whole house energy systems, and use of high-quality insulation materials and radiant barriers to reduce energy consumption (especially the use of air conditioning during hot summer months), to the greatest extent possible.
- Inclusion of rain gardens and rain barrels to capture roof runoff is highly recommended.
- Use of recycled paint and other quality recycled materials is encouraged.

## 2.3.5.B. Roof Styles

**General Design Standards and Guidelines**

- Roof forms should be an integral part of the architectural design of the building. There should be a consistent relationship of slopes and pitches used on each building.
- For projects subject to design review per Section 2.0, the design of a roof on new homes in existing neighborhoods should fit in with designs of roofs on homes in the established neighborhood.
- For projects subject to design review per Section 2.0, new homes in existing neighborhoods should respect the primary roof pitch of the majority of existing homes on the block to allow for coherence of design, while displaying variety in details such as dormers and gable orientation.
- Flat roofs should be used only if it can be demonstrated that they fit in the overall design character of the neighborhood.
- Appropriate roof overhangs are encouraged to promote window shading and building longevity when appropriate to the architectural design of the home.
- Photovoltaic solar panels or solar shingles such as "solar slate" are encouraged to reduce the home's use of energy from the grid.
- Homeowners are encouraged to consider roofing options that include recycled content.
- The use of "cool roof" options, including lighter colored, high albedo coatings and other "cool roofing" materials and applications are encouraged to achieve energy efficiency inside homes and reduce the heat island effect.
- The use of rooftop solar or wind turbine installations (where allowable) should be integrated into the overall home image and be non-obtrusive on the neighborhood imagery.
- Installation of radiant heat barriers and insulation in attic and rafters is encouraged to increase energy efficiency and interior livability.

*Coherent streetscape is achieved through consistent roof pitch.*

*A series of gable dormers that are compatible with the scale of the main structure help break up the overall massing of the building while creating a rhythm.*

## 2.3.5.c. Entry Features

**General Design Standards and Guidelines**

- Entry features are encouraged on all new homes.
- Entry features should be built to a minimum depth of six (6) feet; however, shallower entry features will be considered with justification.
- The scale and style of porch, entry and portico elements should be consistent with the scale and style of the home and incorporate CPTED principles.
- Porch columns and railings should be constructed of high-quality materials that complement the materials used in the overall exterior of the home.

*Raised porch and portico element with stone veneer accent.*

## 2.3.5.d. Doors

**General Design Standards and Guidelines**

- Exterior doors should be constructed of appropriate materials that complement the style of the home and provide security to the occupants.
- Exterior doors should include raised panels, glass, or some other form of detailing and articulation.
- Horizontal sliding doors on main entries are highly discouraged.

*Door with a transom window, sidelights and inset panels*

## 2.3.5.e. Windows

**General Design Standards and Guidelines**

- Windows should be designed to complement the style of the home.
- Accent features such as sills, shutters, and canopies should be used at windows. Recessed windows should also be used where appropriate.
- A consistent window treatment should be used on all sides of the building.
- Reflective or tinted glass and opaque plastic skylights are discouraged.
- Provide overhangs or other shading devices, and select glazing that provides the greatest reduction in solar heat gain during the summer, when the sun is high overhead.
- Major glazing areas should generally face south to collect solar heat during the winter.
- Incorporate daylighting strategies such as: providing light shelves, glare control, courtyards, solar-tubes and skylights.
- Placement of windows should also consider the cooling benefits of Sacramento's Delta breezes.

*Various window features such as shutters and fanlight add interest to the building.*

## 2.3.5.F. SIDING

**General Design Standards and Guidelines**

- For projects subject to design review per Section 2, use durable siding consistent with the style and character of the home. Siding materials for new homes in existing neighborhoods should complement the siding materials used on other homes on the block.
- Use high quality stucco application and appearance. The use of two materials, with one employed as wainscoting, can often add to the interest of the home, and lend a durable appearance.
- Highly reflective materials such as metals or glass should be avoided.
- Non-durable materials such as plastic, tin, and vinyl should be avoided.
- The color, texture, and bonding pattern of brick should be similar to established uses of brick in the neighborhood.

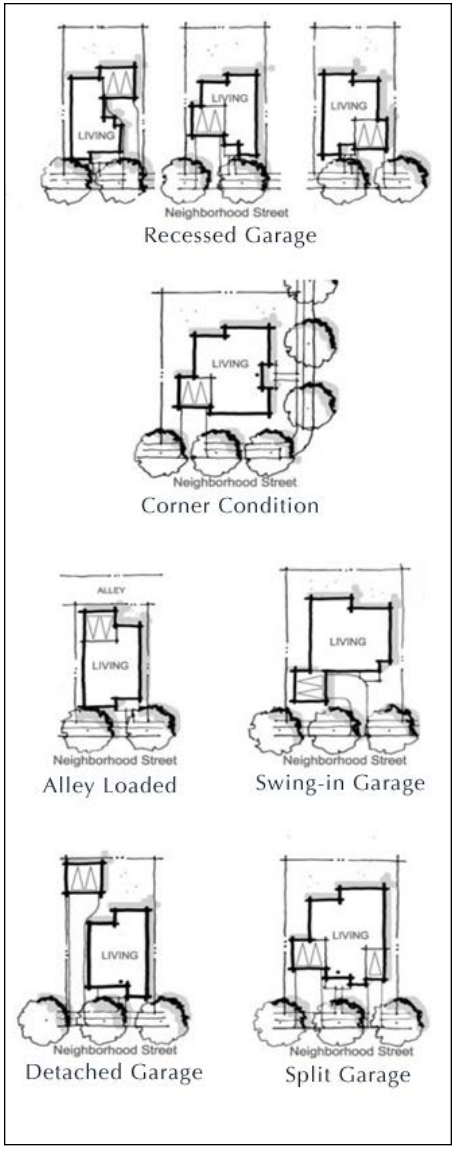

*Examples of recommended building materials*

## 2.3.5.G. Lighting and Addresses

**General Design Standards and Guidelines**

- Exterior lighting contributes to the security of the home and should be pedestrian-oriented. Lighting fixtures shall provide adequate illumination of the front entry and building addresses so that both are clearly visible from the street, following CPTED guidelines. Recessed entryways should be clearly lit.
- The preferred location to display the address is affixed to the front of the home, clearly visible from the street.
- Exterior lighting should minimize light pollution caused by glare or spillage onto neighboring properties.
- In addition to the standards set forth in this section and 2.4.1 site and street lighting shall comply with Section 5 (Street Light Design) of the Sacramento County Improvement Standards.
- Energy efficient lighting strategies, including placing lights on timers or sensors, should be applied.
- Nighttime pollution of the sky is discouraged by following illumination levels required for safety per Illuminating Engineering Society of North America (IESNA).

*Lighting fixtures should be of high quality, and recessed entryways clearly lit.*




## 2.3.6 GARAGES

**Design Principle**
The garage should be placed in a way that minimizes its prominence on the public street. A range of different placement options is encouraged within the same block to create visual interest along the street. Garages on alleys are encouraged.

**Rationale**
De-emphasizing the appearance of the garage from the public street or open space and place higher emphasis on the active spaces such as the front entryway and porch enhances the streetscape and the pedestrian experience.

**Design Guidelines**
- Varied planes and setbacks should be used for three or more adjacent garage doors.
- A variety of garage placements should be created on the same block in order to de-emphasize garage doors and avoid garages from dominating the streetscape and the front of the house. Recessed garages, and garages placed at the side or rear of the home, are encouraged.
- Reduce the amount of expansive side-by-side concrete driveways by alternating the location of the garage so that two garages are not located side-by-side in single family developments, when feasible to do so.

**Figure 2.6:** Various garage and driveway orientation examples

# 2.4 Landscaping / Site Elements

The landscaping of a neighborhood has a major impact on establishing its character, sense of place, property values and livability. The landscaping of both the public and private spaces along a street contribute to how a neighborhood feels and how the street is used by its residents. People will walk more on safe and attractive tree lined streets. The trees' natural canopies will also keep neighborhoods cooler during Sacramento's seasonally hot days. Use of river friendly/drought-tolerant landscaping conserves water while remaining attractive year round. Site elements such as walls, fencing, sideyards, utilities, and storage enclosures, are an important ingredient of these landscapes and must be well designed as an integral part of the overall neighborhood. Placement of street furniture or a small corner plaza in key parts of the streetscape provides elements of public spaces to be enjoyed.

## 2.4.1 Planting and Landscaping

**Design Principle**

Residential subdivisions shall have a coherent overall landscape strategy including street trees as part of a "complete streets" design. Large common areas in the public realm should be considered for special landscape design treatment with public art as a consideration. Additionally, on-going maintenance of landscapes is essential to ensure long term neighborhood sustainability and success.

Individual residential lots should be designed to maximize opportunities for usable, attractive, and well-landscaped open spaces. Landscaping should complement the architectural design. The design and placement of driveways and walkways should allow for a maximum amount of "meaningful" landscaping to be incorporated into the site design. A variety of plantings should be selected and provided appropriately for their intended use. Special consideration should be given to creating environmental benefits, such as providing shade, using native drought tolerant planting, treating and/or reducing stormwater runoff, and providing habitat for the local species. All landscaping plans shall be coordinated with requirements of the Water Conservation Ordinance.

*Planter strip along a local residential road is planted with native vegetation and utilized as a stormwater treatment device*

**Rationale**

Treatment of the landscape in the public and private areas is a major component of neighborhood creation, character, and compatibility. Landscaping can be used as a strong complement to buildings and to make a positive contribution to the aesthetics and function of the specific lot, building, and area. Landscaping of the individual lot can also provide for a smooth transition between the public and the private area and improve the safety along the streets. Landscaping and landscape maintenance are critical components of any successful residential project and shall be considered an essential part of the design and construction process, particularly for single-family residential developments.

## 2.4.1.A. PLANTING

**Design Guidelines**

- Incorporate trees, shrubs, plants, groundcover, and grass areas within single-family development projects to create a well-designed landscaped environment for residents and those viewing from public areas.
- 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 in front yards to provide for visual surveillance of the street and sidewalks.
- Visual focal points such as sculpture and public art are strongly encouraged to be integrated into subdivision common area landscaping.
- To the extent feasible, existing mature trees and shrubs that represent existing significant landscaping shall be preserved.
- All plants should be given enough space to grow to their natural size.
- Provide street trees in the front and side street yards of residential lots, consistent with Section 5.2.4.C of the Zoning Code.

- 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. Shading air conditioning equipment helps conserve energy.
- Unpaved areas should be planted with irrigated plant materials, and mulched where landscaping would be challenging to minimize weed growth and improve appearance.
- For subdivisions, planting strips located between the sidewalk and street should be at a minimum six (6) feet wide to allow for a mature tree to grow. Planting strips less than six (6) feet wide must be consistent with the improvement standards and still provide for the planting of smaller canopy trees.
- Provide sidewalk shading with the planting of street trees in the public realm, consistent with the County Improvement Standards.
- For subdivisions, marked entries should incorporate landscaped open space areas. Enhanced parkways and tree lined medians can create an attractive entrance and are encouraged.
- Various water conservation measures and systems to capture and treat stormwater should be employed through landscaping to the extent feasible, in accordance with the Water Conservation Ordinance and the River Friendly Landscape Design Toolkit.
- Primary selection of trees and plant species should be from the California native palette and other drought tolerant species. Invasive species are strongly discouraged (Refer to Table 2.3 for a list of suggested native plants selection).
- Hydrozoning-grouping plants by water needs for irrigation water efficiency should be implemented.
- Low water use groundcovers or plants should be planted. Use of high input water consuming decorative lawns is discouraged.
- Deciduous trees and shrubs that shade the west and south sides of the home are

*Shrubs and groundcover can provide a low-water landscape alternative to turf.*

*Native and low water-use ornamental plants can significantly reduce water consumption.*

encouraged to minimize solar heat gain of the building.

- Shade trees should be strategically planted to shade pavement areas and air conditioners.
- Trees that become diseased, die or require removal, should be replaced in order to sustain the tree canopy and benefits provided by the landscape palette.
- Bare soils should be planted or mulched with bark, stone, or other suitable materials to avoid unnecessary runoff.
- Bio-retention areas or "rain gardens" are encouraged in the front and rear yard, where feasible.
- Utilize the River Friendly Landscape Design Toolkit for the new California landscape.
- Reduce yard waste by utilizing River-Friendly landscaping practices such as carefully selecting the right size plants for the yard, mulching, and providing for composting.
- For new subdivisions, street-side landscaping areas should be depressed and planted with native vegetation. Open curbs or curb cuts should be provided to allow for stormwater collection into these areas for filtration/infiltration.
- Garden or raised beds for growing vegetables are encouraged.
- Use of known high allergen plantings is discouraged.

**TABLE 2.2**: INVASIVE PLANTS AND RECOMMENDED ALTERNATIVES
*(Source: River-Friendly Landscape Guidelines, Sacramento Stormwater Quality Partnership)*

| LATIN NAME | COMMON NAME | NON-INVASIVE ALTERNATIVE |
|---|---|---|
| Cortaderia selloana<br>C. jubata | Pampasgrass<br>Jubatagrass | *Leymus condensatus* (Giant wildrye 'Canyon Prince') or Muhlenbergia rigens (Deergrass) |
| Cytisus scoparius<br>C. striatus<br>Genista monspessulana<br>Spartium junceum<br>Sesbania punicea | Scotch Broom<br>Portuguese Broom<br>French Broom<br>Spanish Broom<br>Scarlet Wisteria | Heteromeles arbutifolia (Toyon) or Ribes aureum (Golden Currant) or Salvia clevelandii (Cleveland Sage) |
| Eucalyptus camaldulensis<br>E. globulus<br>Tamarisk species | Red Gum Eucalyptus<br>Blue Gum Eucalyptus<br>Saltcedar | Populus fremontii (Fremont Cottonwood) or Quercus lobata (Valley oak) |
| Sapium sebiferum | Chinese Tallowtree | Cercis canadensis, C. occidentalis (Eastern Redbud, Western Redbud) |
| Hedera canariensis<br>H. helix<br>H. hibernica<br>Vinca major<br>Pennisetum setaceum | Algerian Ivy<br>English Ivy<br>Irish Ivy<br>Big Periwinkle<br>Fountaingrass | Achillea millefolium (Common Yarrow) or Ceanothus species (California Wild Lilac) or Heuchera maxima and hybrids Giant Alumroot/Coral Bells)<br>Lavendula species (Lavender species) |

**Figure 2.7:** Samples of California Native and Drought-Tolerant Low Water-Use Plants

## California Native and Drought-Tolerant Low Water-Use Plants

*Nandina domestica*
Heavenly Bamboo
Harbour Dwarf

*Chitalpa X tashkentensis*
Chitalpa Pink Dawn

*Leucophyllum zygophyllum*
Cimarron Blue Ranger

*Perovskia x atriplicifolia*
Lacey Blue Russian Sage

*Rhamnus californica Eve*
Case Compact Coffeeberry

*Salvia clevelandii*
Winifred Gilman Blue Sage

*Salvia*
Bee's Bliss Creeping Sage

*Baccharis pilularis*
Twin Peaks #2 Ground Cover Baccharis

*Ceanothus maritimus*
Violet maritime ceanothus

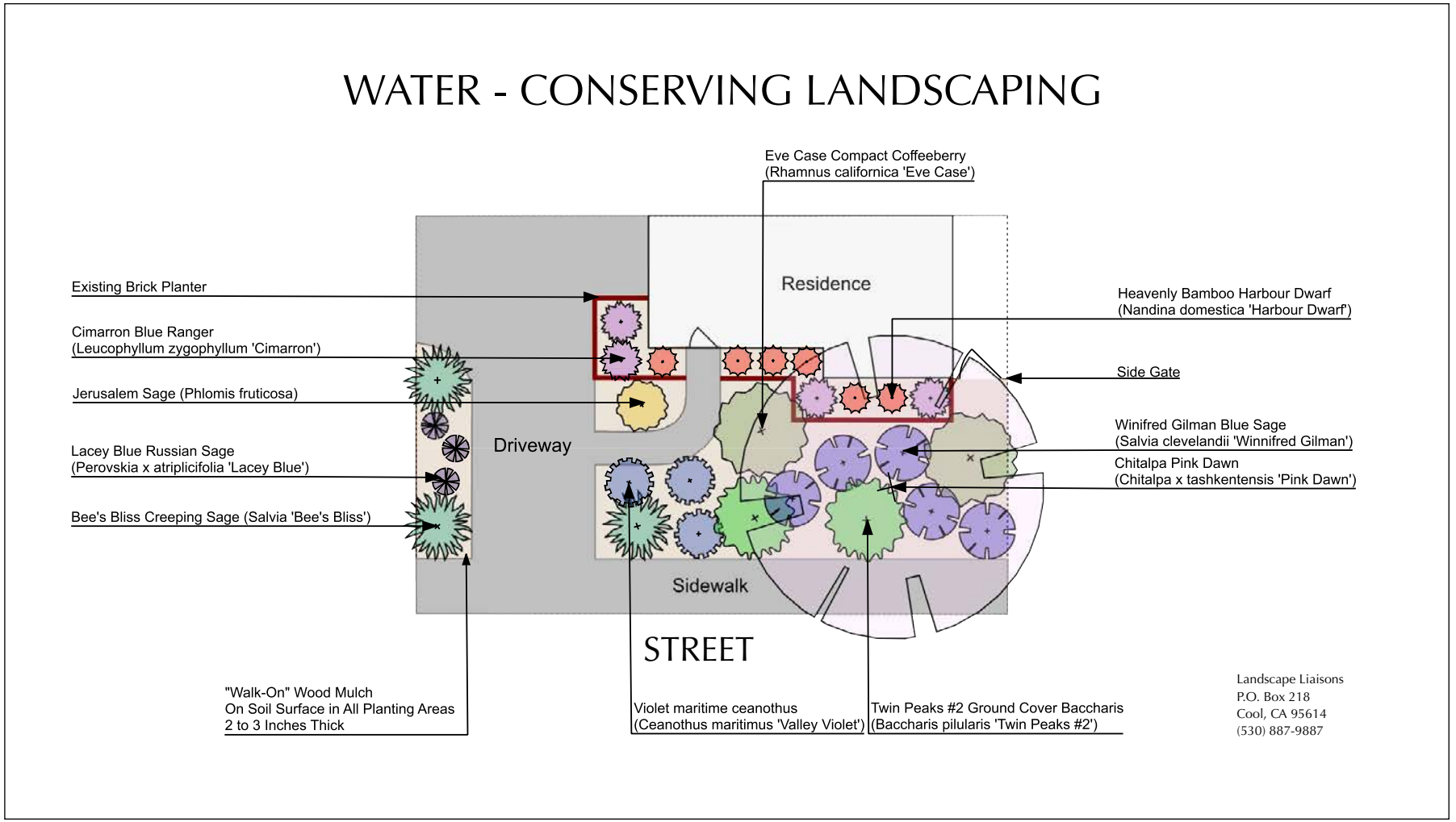
## 2.4.1.B. IRRIGATION

**Design Guidelines**

- An automatic irrigation system that includes a controller with weather station, rain shut-off valves and sensors shall be installed and properly programmed in the front yard to provide consistent coverage of all planted areas consistent with the Water Conservation Ordinance. A home on a corner lot should have an automatic irrigation system that covers the yard fronting both streets.
- Turf and groundcover are more effectively irrigated with a conventional spray system. Head-to-head spray coverage is recommended. Avoid overspray onto sidewalks and adjacent properties.
- A drip irrigation system is recommended for vegetable beds, shrubs and trees to provide deeper, more even watering. Drip irrigation also permits greater water conservation than a conventional spray system.
- Irrigation controls must be screened from view by landscaping or other attractive site materials.
- Installation of rainbarrels, as an additional irrigation source, is highly encouraged.

*Drip irrigation provides deeper watering and permits greater water conservation.*

**Figure 2.8:** Single-Family Example #1 with Water-Conserving Landscape



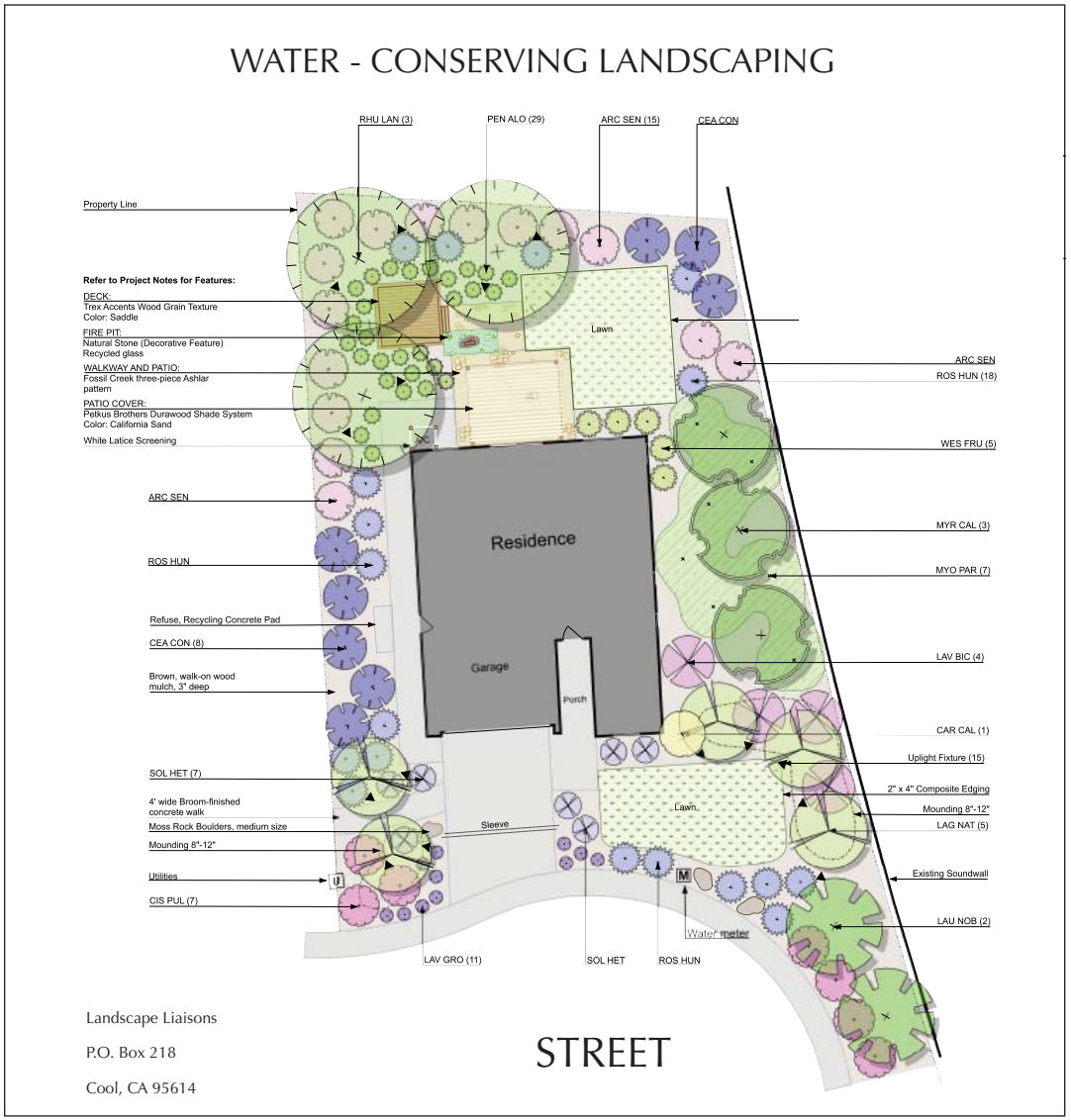



**Figure 2.9:** Single-Family Example #2 with Water-Conserving Landscape


**Figure 2.10:** Single-Family Example #3 with Water-Conserving Landscape

## 2.4.1.c. Paving and Hardscape Surfaces

**Design Guidelines**

- The paving materials selected should contribute to the overall appearance of the home.
- Alternative paving surfaces, such as concrete pavers, brick, or stone are encouraged for driveway and walkway surfaces to reduce the appearance or large, paved areas. Use of pervious paving materials is encouraged.
- Alternative driveway and paving treatments (such as Ribbon or Hollywood driveways) are common in older neighborhoods and can provide guidance for new homes in existing neighborhoods for those projects subject to design review, per Section 2. Ribbon driveways are made up of two parallel strips of paving, with a strip of grass or pervious pavers between the paving strips to allow the rain water to soak in. This type of design minimizes impervious surfaces by only using conventional pavement on the area where a vehicle will be driving or parking, and not the surfaces between the wheels.
- Impervious surfaces should be minimized to the greatest extent possible to reduce stormwater runoff and urban heat island effect. Alternative paving surfaces such as permeable paver blocks and permeable concrete should be considered for driveways, walkways, and patios.
- Porous streets and sidewalks that allow stormwater to seep into the ground and adjacent drainage swales are recommended.
- Utilize cool pavement whenever possible to reduce urban heat island impacts.
- Integrate a variety of paving/hardscape treatments to reduce runoff and obtain the greatest benefits in cooling, groundwater infiltration and aesthetics.

*Permeable interlocking concrete pavement combines stormwater infiltration, retention, and surface use (e.g. driveway) into one place, thereby reducing runoff volume.*

## 2.4.2 PARKS, OPEN SPACE AND DRAINAGE/FLOOD FACILITIES

**Design Guidelines**

- Parks and open space should be integrated into neighborhoods to encourage outdoor recreation and preserve natural habitats. Size, type and location shall be sized and located as to support the community master plan goals.
- Parks and open space should be strategically located in residential areas and be accessible via roadways, transit routes, and off-road pedestrian and bicycle trails and paseos (walkways) wherever possible.
- Parks and open space areas should be used as methods to connect communities and neighborhoods and provide alternative modes of travel via sidewalks and trails.
- Open space areas could be used to delineate community or neighborhood boundaries.
- Neighborhood parks are encouraged to be centers of neighborhood activity and could be combined with schools, community recreation centers, libraries and other civic uses.
- Parks and open space areas should include linear parkways with off-street trails integrated with the transportation system. Public Safety is a high priority and CPTED principles should be applied to the design of off-street trails.
- Flood protection and drainage facilities shall be designed to provide multiple public benefits wherever possible. Facilities shall include multi-purpose improvements consisting of recreation, the environment, storm water runoff, water reclamation, infiltration, groundwater recharge, flood control, etc. Attractive land use basins, such as parks (in addition to Quimby land dedication requirements) or parkways with trails that also convey water to water quality basins or similar facilities and provide some water quality treatment are examples of desired multiple public benefit facilities.
- Open space should be connected to provide habitat corridors through urban environments.

## 2.4.3 Walls and Fences

**Design Principle**
Fencing must be of high-quality and durable materials that will enhance the overall character of the home and contribute to the positive appearance of the neighborhood.

**Rationale**
Well selected fencing adds to the overall character of the neighborhood while providing for privacy, security, and also visual surveillance of the public realm.

**Design Guidelines**

- Fencing shall be located and constructed in conformance with the Zoning Code, Title III, Chapter 1, Article 5 "Regulations Pertaining to Walls and Fences."
- Fencing must allow unobstructed visibility of the front entrance, and in the case of homes on corner lots, the front and any side entrances.
- The style, materials, and color of the fencing should complement the style, materials, and color of the home.
- High-quality materials, including wood, metal, stucco, and some forms of vinyl fencing, are acceptable fencing materials.
- Chain link fencing is highly discouraged for use as a front yard feature.
- Front yard fencing for new homes in existing neighborhoods is discouraged on blocks where the majority of the homes do not have front yard fencing.
- Landscaping shall be included as part of the design for any fence or wall and should be used to soften and screen large masses of blank walls.
- When fencing is proposed, a combination walls and fences using decorative fence elements such as tubular steel is preferred. Solid block walls shall use decorative block, pilasters and capping where visible to the public, consistent with the Zoning Code.

*Front yard fencing marks the transition from the public to the semi-private realm while allowing views to penetrate into the property.*

*Heavy landscaping reduces the visibility of a solid rear-yard wall and softens the hard edge appearance.*

- 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, consistent with the Zoning Code.
- Use of materials that are consistent with the style of the home is encouraged.

## 2.4.4 Utilities and Storage

**Design Principle**
The visibility of utilities and storage facilities should be minimized by placing them at the side or rear of the home and screening them from view from the public street or open space.

**Rationale**
Utilities and service features are less attractive but necessary parts of a home. By placing these features away from public view and screening them, using fences and landscaping, the aesthetics of the neighborhood can be improved.

*Placing mechanical units in suitable locations such as sides and niches of buildings, and screening from public view reduce visual impact.*

**Design Guidelines**
- Trash receptacles should be placed in the side or rear yard and adequately screened by landscaping or side yard fence. Trash areas should be designed to accommodate recycle bins. If trash receptacles are to be stored in the garage the garage must be able to allow user access to them.
- Storage sheds should be located in the rear yard and shall comply with setback requirements. Placement in the side yard is acceptable if the shed is adequately screened by landscaping or a side yard fence, when proposed with the initial home construction.
- Accessory structures should be similar in character and materials to the main building, but subordinate in massing, scale, and height when proposed with initial home construction.
- Antennae should be mounted at the rear of the home. Satellite dishes should be mounted on the home to minimize their visibility.
- Heating and cooling units should not be roof-mounted or placed at the front of the home. Heating and cooling units should be placed in the attic or at the side or rear of the home and screened by a side yard fence or landscaping. Solar panels do not need to be screened.

- Wherever possible utilities should be undergrounded.
- Where feasible, heating, ventilation, and air conditioning units should be placed on the north side of the primary structure or garage (if not the street side) to shade the units and minimize energy consumption.
- All new HVAC equipment shall meet SMUD's latest guidelines for energy efficiency.
- Installation of building integrated solar panels and micro wind-turbines on the roof are encouraged and not precluded by any of the guidelines in this document.
- All new homes are subject to the State of California's Building requirements. Efforts should be made to advance energy reductions and enhance conservation efforts to achieve the zero-net energy 2020 goals for new homes.
- Home electric vehicle chargers are encouraged.
- Plumbing systems that provide outdoor plumbing connection for use in greywater irrigation are encouraged, consistent with health requirements.
- Refer to the commercial design guidelines Section 4.4.6 for guidelines for wireless communication facilities.

*The visibility of utilities and storage facilities shall be minimized by placing them at the side or rear of the home and screening them from view.*

# 3.0 Multifamily Design Standards

The purpose of this chapter is to provide objective planning and design standards for multifamily development that supports the goals and objectives of the Sacramento County (County) General Plan (General Plan), providing for residential development that contributes to the health, sustainability, and quality of life of the unincorporated communities within the County.

The General Plan promotes a high quality of architectural and site design for all development within the County. To this end, multifamily design standards have been created to ensure these objectives are achieved while meeting the diverse housing needs of all residents of the County's unincorporated communities.

The Multifamily Design Standards serve to implement seven common design features. These are a statement of the County's vision for the future of multifamily design in the unincorporated County, providing guidance for new development. The multifamily design standards reflect County values that shall be expressed in the built environment. They are intended to support a variety of urban forms, from the more urban, concentrated centers, to rural and suburban neighborhoods.

Note: This chapter is unique and departs from the other chapters of the Design Guidelines by creating required objective design standards. These objective design standards are intended to reduce uncertainty for multi-family developers and minimize barriers to the creation of multifamily development in the County's unincorporated communities. The intent of this departure is to be consistent with the California Department of Housing and Community Development's requirements and state legislation that all jurisdictions provide objective, easy to understand, and streamlined multifamily standards.

## 3.1 Purpose

The purpose of this document is to:

- Communicate the design expectations for multifamily residential development to the development community in advance of an application being filed.
- Facilitate fair and consistent application of design standards.
- Require safe and functional development that contributes to the fabric of the community.

## 3.2 How to Use the Multifamily Design Standards

**This document provides design principles, rationales, and objective design standards applicable to all multi-family development with 2 or more residential units**. Project applicants, urban designers, architects, and landscape architects will use this document to guide their creative process in achieving the high quality and innovative designs expected within the unincorporated County.

Each section of this document includes a design principle, rationale, and objective design standards as defined below:

- Design Principle: Represents the overarching design rule on which the design standards are based.
- Rationale: An explanation of the purpose and reasoning for the Design Principle.
- Design Standard: Objective standards established to implement the design principles and the basis for achieving design approval.

Projects are required to meet all applicable design standards. In instances where deviations from the prescribed design standards are necessary, a Special Development Permit may be granted as provided for in the Zoning Code.

## 3.3 Relationship to Specific Plan, Special Planning Areas, and Community Plan Design Guidelines

Over time, the Board has adopted area-specific planning documents with corresponding design guidelines; such as community plans, specific plans, master plans and special planning area ordinances. While this multifamily design standards document will supersede prior documents and be the basis for design review approval for all multifamily projects in the unincorporated County, these area-specific design guidelines can be used by applicants as a reference and guidance.

Exception: Where area-specific design guidelines contain quantified specific objective design standards or a prescribed architectural style, the area-specific standards shall be used in conjunction with this document and shall prevail where conflicts exist.

## 3.4 Design Categories

Design Principles have been arranged topically into the below 7 categorizes.

**Site Design Elements:**

- Site Planning
- Building Orientation
- Setbacks

**Architectural Elements:**

- Architectural Variety
- Scale, Massing, and Articulation
- Materials, Textures, and Colors

**Parking/ Circulation Elements:**

- Vehicle Circulation/Parking
- Garages/Carports
- Pedestrian Circulation

**Landscape and Open Space Elements:**

- Common Open Space
- Landscaping
- Irrigation

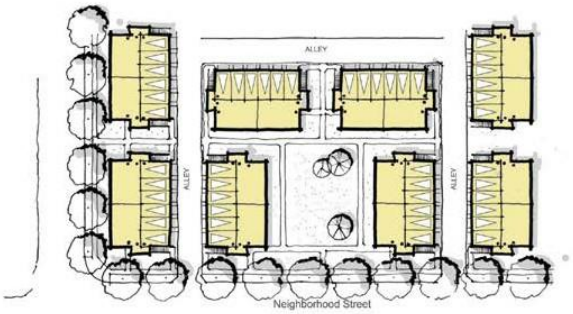
**Lighting/ Security:**

- Lighting
- Security/Crime Prevention through Environmental Design

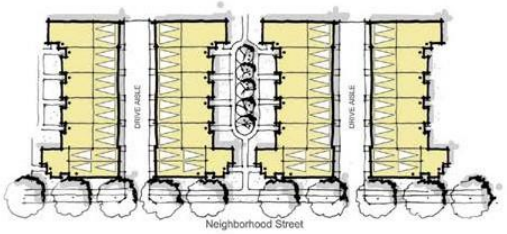
**Accessory Structures/ Infrastructure:**

- Storage/Accessory Structures/Mechanical/ HVAC/Utility Equipment
- Trash/Recycling Enclosures

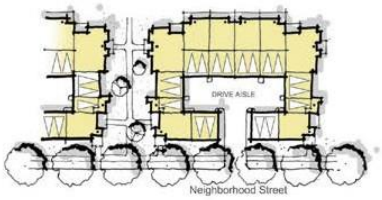
**Fencing/Walls Principles**



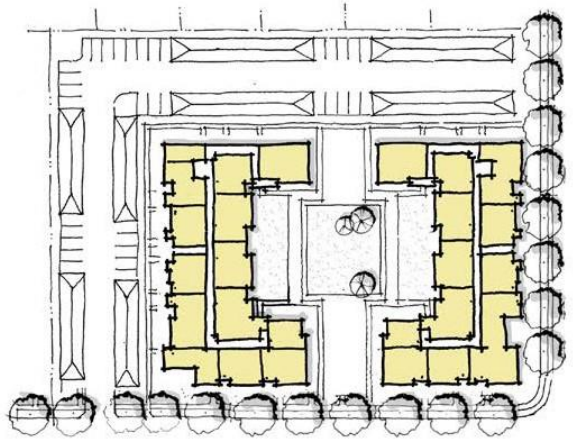

GARDEN APTS
18~22 du/ac




REAR-LOADED GARDEN COURT
TOWNHOMES\CONDOS
18 ~ 22 du/ac




MOTOR COURT APTS / CONDOS
18~24 du/ac



APARTMENTS
18~24 du/ac

**FIGURE 3.1:** Multifamily housing prototypes

# 3.5 Site Design

## 3.5.1 Site Planning

### A. Design Principle:

Site planning addresses how the elements of development relate to one another and the built environment. Building elements shall be in harmony with one another and actively connect with surrounding development and pedestrian infrastructure.

### B. Rationale:

Building location and site organization is crucial to wayfinding and encouraging active transportation. Orienting buildings towards the public realm can provide for eyes on the street helping to reinforce sense of community and reduce crime.

### C. Design Standards:

1. Incorporate connecting pedestrian pathways or paseos between buildings.
2. Design vehicular site circulation to support the existing circulation network.
    - Where adjacent development has existing Irrevocable Offers of Dedication (IODs) or street stubs in place, development shall connect to complete the circulation network.
3. Parking area access shall be located on the side street or from alley access wherever possible.
4. Bicycle parking shall be sited within 20 feet of a building entrance.

## Site Planning

*Paseo and shared common space between townhomes that connect the entire development. Building articulation and balconies face the paseo.*

*Connecting pathways or paseo and between townhomes that connect the entire development. Building articulation and balconies face the paseo.*

*Front doors opening onto streets provide access and visual surveillance.*

### 3.5.2 Building Orientation

A. Design Principle:

Orient buildings towards the street to encourage active transportation while providing privacy between buildings.

B. Rationale:

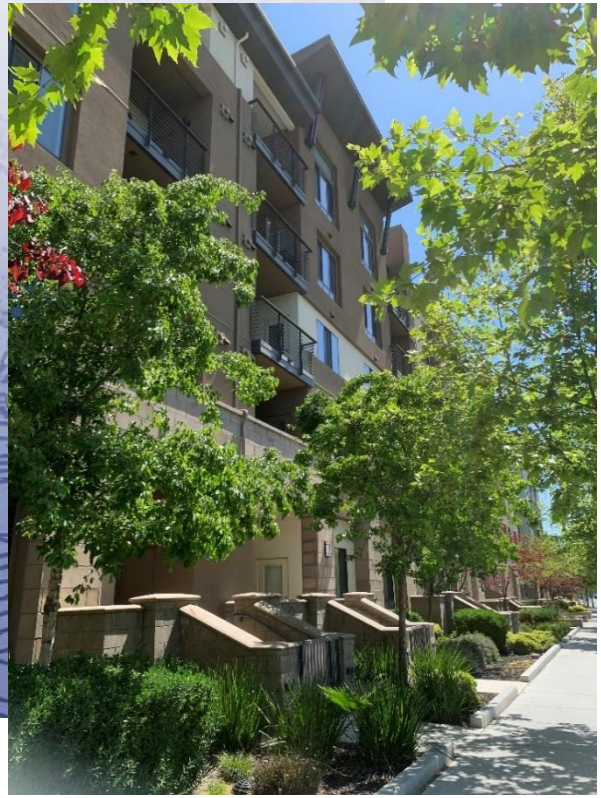
Building orientation is crucial in creating an activated streetscape. Buildings with architectural detail, articulation and activity oriented towards the street create a sense of place. Public realm oriented development also encourages active transportation which has been linked to increased cardiovascular health and a reduction in body mass index. Additionally, orienting buildings towards the public realm creates more eyes on the street which can be linked to a reduction in crime.

C. Design Standards:

1. Buildings shall be sited to focus "eyes on the street." Entries, windows, private open spaces, and Active Uses shall be oriented to face the street. The following features of multi-unit structures shall articulate facades facing the street, public realm, alley, common open space, and parking areas:
   - building or unit entries
   - stoops, balconies, or patios
   - windows
   - shade features or canopies
2. Main entrances to residential buildings shall face adjacent roadways and / or open space features. This can include the main building entry, or individual unit entries.
3. Articulate individual unit entries with stoops, raised porches, low wall courtyards or other aesthetic entry features.

## Building Orientation

4. Buildings shall be designed to offset windows between facing building elevations so that they do not look align directly into the windows of adjacent buildings on the project site or adjacent parcels.



*Unit entries with stoops or raised porches, building entries, and private open space faces the adjacent street or open space. Individual units are distinguishable through architectural articulation.*

### 3.5.3 Setbacks

*The Public Realm is the street space from the back of the sidewalk and includes public paths, trails, and open space.*

A. Design Principle:

Include setback variation with an emphasis on orientation to the street and open spaces.

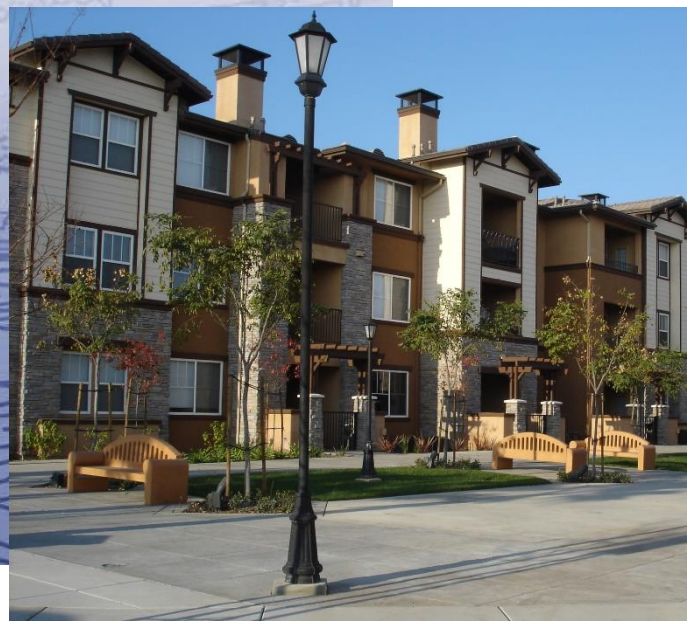
B. Rationale:

Building setback variation oriented towards the public realm encourages provides connection between development and the street, this promotes active transportation and helps to create visual interest along the streetscape.

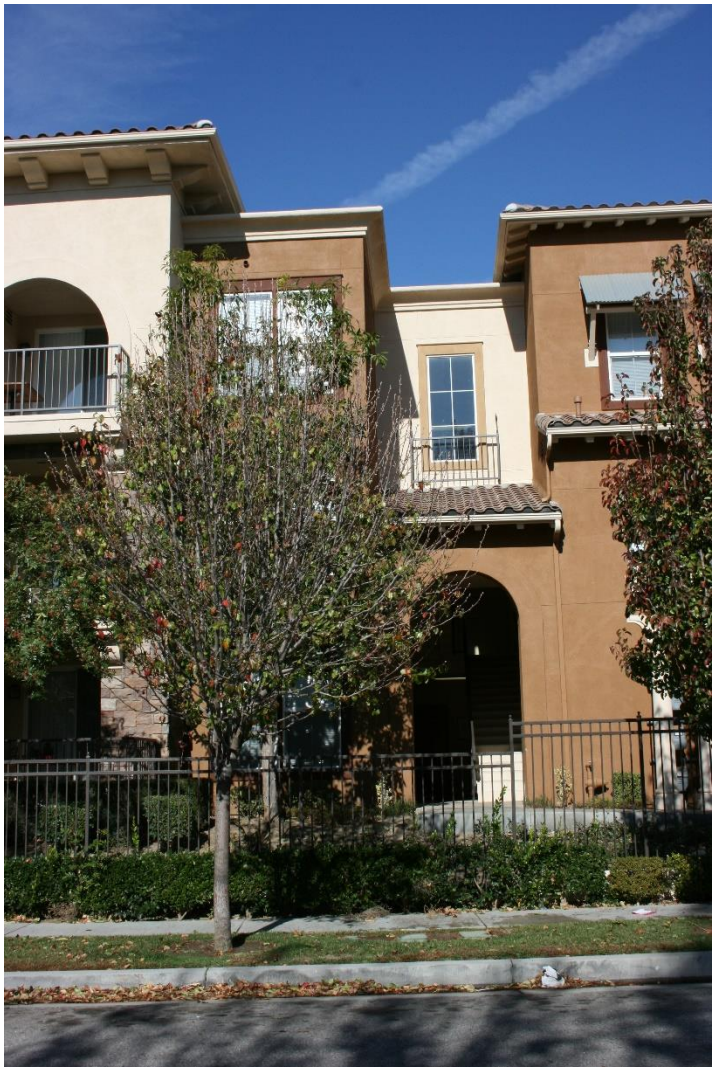
C. Design Standards:

1. When buildings are adjacent to one another, the buildings shall have a setback with a minimum of two feet in variation between buildings to avoid monotonous streetscapes. This shall not apply to townhomes or row houses.
2. Individual buildings shall be designed with an articulated front facade that includes a minimum of two wall planes with a minimum offset depth of 6 inches.

## Setbacks



*Building design incorporates setback variation within and between buildings. Wall plane offsets and reduced building massing elements adds additional variation and pedestrian scaling.*



# 3.6 Architectural Elements

## 3.6.1 Architectural Variety:

### A. Design Principle:

Multifamily development architectural designs shall be well thought out and provide a defined concept to contribute to the visual interest of the community.

### B. Rationale:

A variety of design styles and materials shall be utilized to create interesting streetscapes. Quality in detail and design contribute to the long term viability of a development.

### C. Design Standards:

1. To enhance visual interest, a minimum of three material types shall be used on each building.
2. Exterior finish materials shall consist of stucco, wood siding, architectural siding, fiber cement products, stone, and/or brick. Plywood siding, including T-111 is not permitted.

## Architectural Variety

*Use of a variety of complementary facade materials, high-quality durable finishes, and architectural detail creates interesting streetscapes.*

### 3.6.2 Scale, Massing, and Articulation

A. Design Principle:

Multifamily projects shall be designed with special attention to scale, massing, and articulations.

B. Rationale:

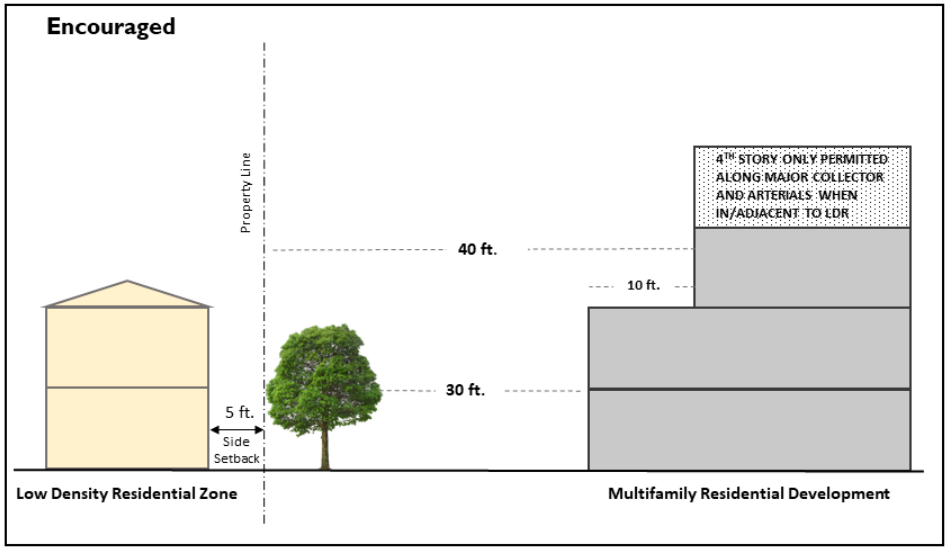
Stepping back building height, breaking up the mass of a building, and shifting building placement can be used to mitigate impacts of differing building scales, architectural designs, and intensities as well as contribute to the character and identity of the building.

C. Design Standards:

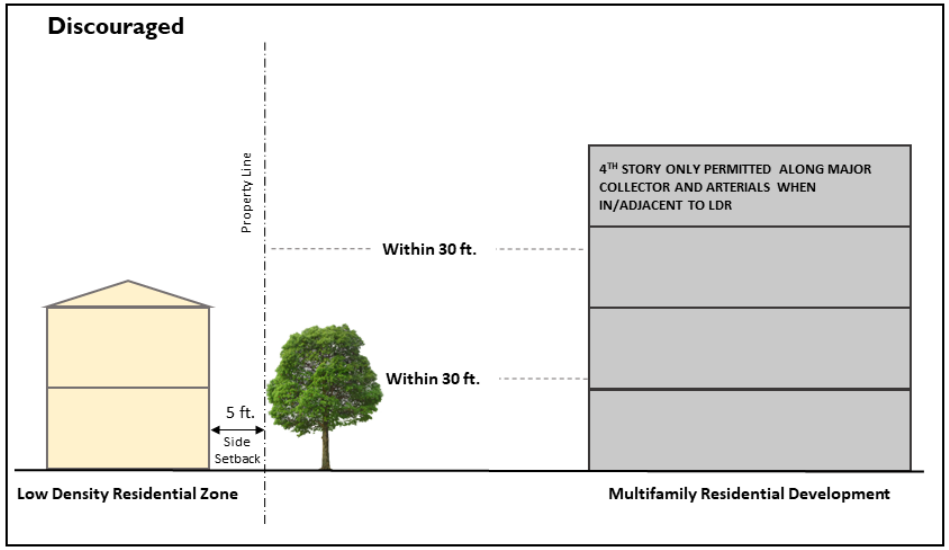
1. Street facing facades shall provide two of the following: window bays, porches with posts or columns, dormers, gable roof elements, a veneer wainscoting, shutters, or window boxes, awnings, vertical shading elements.
2. Elements such as roof dormers, hips, gables, balconies, wall projections and porches are required to break up the mass of building facades. Not less than 40% of the length of a building façade shall be treated with such elements. End units shall have the same design elements as front facades wrapping the corner of the unit.
3. Street-facing (private or public) façades shall provide windows at a rate of at least One (1) window per 100 square feet of exterior wall area, in order to prevent large expanses of windowless, blank walls.
4. Buildings over two stories in height when located within 30 feet of a Low Density Residential Zone shall include a minimum of one of the following:
    a. A stepping back of second and higher floors of at least 10 feet from the first floor.
    b. Screen tree plantings of 15 feet on center between multi-family structures and Low Density Residential Zoned Properties.
    c. All windows facing Low Density Residentially Zoned Properties shall be either clearstory and/ or opaque.

## Scale, Massing, and Articulation

*All street facing facades include windows. Architectural materials and massing articulation wrap to the building sides facing streets. Roof and massing features create interest and articulation in the building form.*




*Buildings over two stories in height when located within 30 feet of a LDR zone are encouraged to step-back upper floors of the buildings adjacent to shared property lines.*



# 3.7 Parking/ Circulation Principles

## 3.7.1 Vehicle Circulation/ Parking

### A. Design Principle:

Visual prominence of parking areas shall be minimized to encourage active transportation and circulation.

### B. Rationale:

A well- defined relationship with the street is critical for encouraging active transportation and creating a defined overall sense of place.

### C. Design Standards:

1. For multifamily complexes on greater than 2 acres, surface parking lots shall be located to the side or rear of buildings or underground and not adjacent to public roadways.
2. For parking areas with more than 50 vehicles, a pedestrian pathway shall be provided from the parking area to the nearest building.
3. Parking lot entries shall provide enhanced paving consisting of pavers, or stamped or colored concrete.

### 3.7.2 Garages/ Carports

#### A. Design Principle:

Garages and Carports shall be well thought out for the site with an emphasis towards minimizing visibility from the street. Consistency between these covered parking areas and the primary buildings architecture shall be a primary consideration.

#### B. Rationale:

Visually prominent parking detracts from building facades and the interface between the building and the public right of way, conveying the message that the car is primary to active transportation. To minimize this, covered parking shall be placed underneath, beside or to the rear of structures. Garages and carports shall be broken into clusters rather than long unbroken lines.

#### C. Design Standards:

1. Garage and carports shall be consistent with the colors and materials of the primary residential structures. These standards shall not apply to carports or garages that have roof mounted solar panels.
2. Detached garages and carports are not permitted between the right of way and the primary residential structures. They shall be located to the side, rear, or beneath the buildings.

## Vehicle Circulation / Parking, Garages / Carports

*Materials, colors, and rooflines of carports and garages reflecting main buildings enhance the design of the development.*
*Locate parking to the side or rear of buildings. Integrate landscaping and paving features to delineate spaces. Continue materials and windows from primary facades to face parking areas.*

## 3.7.3 Pedestrian Circulation

### A. Design Principle:

Structures shall be oriented towards active transportation modes with direct connectivity to all portions of the property with adjacent public rights of way or private drives.

### B. Rationale:

Modal share of active transportation modes can be directly linked to the provision of comfortable and safe paths of travel. Items used to enhance comfort can include human scale architectural detail, unique architectural articulation, wayfinding devices, and the provision of sufficient pedestrian infrastructure such as wide shaded pathways.

### C. Design Standards:

1. Pedestrian walkways and paths of travel shall not be combined with, or be a part of driveways unless textures, patterns, or colors are provided to designate pedestrian crossing areas and entries.
2. Pedestrian pathways shall be provided to:
    a. Connect all buildings to the public right away through a pedestrian pathway with a minimum clear path of travel width of four (4) feet.
    b. Connect all units to common gathering spaces.
    c. Be consistent with the Americans with Disabilities Act (ADA) as reviewed by the Building Permits and Inspection Department. This shall not be construed to preclude raised porches or stoops to individual units unless further required by the Americans with Disabilities Act.
3. Pedestrian pathways shall include landscaping and trees spaced no more than 75% of the selected species mature canopy size, not to exceed 30' on center. Deviations from this requirement may be reviewed and approved through the multifamily special development permit process.

4. Amenities such as trellises, benches, barbeque areas, or play structures shall be provided on any pedestrian pathway exceeding 200 feet.
5. Paseo standards:
    a. Minimum width of 8 feet
    b. Unobstructed walking path width of 5 feet minimum
    c. Incorporate textured or colored paving materials, or be constructed of permeable materials
    d. Incorporate landscape features (trees or planting) into the design of the Paseo

*Paseos between buildings create an integrated, walkable neighborhood*

# 3.8 Landscaping/ Open Space

## 3.8.1 Common Open Space

(Includes all landscaped areas, yards, patios, swimming pools, putting greens, and other recreational-leisure facilities; areas of scenic or natural beauty and habitat areas; hiking, riding, or off street bicycle trails; and landscaped areas adjacent to roads that are in excess of minimum required rights-of-way)

### A. Design Principle:

Common open spaces shall be easily accessible, usable and visually appealing.

### B. Rationale:

Common open spaces create a place for residents to gather and develop a sense of community. High levels of resident interaction has been linked to improved mental and emotional wellbeing as well as a reduction in crime.

### C. Design Standards:

1. All units adjacent to common spaces shall have a kitchen, living room, or bedroom that provide windows overlooking such spaces.
2. Off street pedestrian routes to site features and amenities shall be provided from all residential units. Pedestrian route may be an independent paseo, or a parking lot adjacent raised sidewalk.

### 3.8.2 Common Gathering Spaces:

Common gathering spaces shall be defined as a central area for attached multifamily projects consisting of picnic tables, barbeque areas, and playing fields of at least 400 square feet in area. It shall be required for projects with over 10 attached units. Rooftop decks or patios may be utilized to satisfy this requirement along with community clubhouse facilities.

#### A. Design Principle:

Multifamily developments shall provide common gathering places for resident interaction and community events.

#### B. Rationale:

Usable common gathering spaces are essential for fostering community interaction and establishing community identity.

#### C. Design Standards:

1. Provide a minimum of 1 common gathering space with a minimum of 400 square feet for residential projects with more than 10 attached units. For every 5 residential buildings on a site, an additional 200 square foot common gathering space shall be provided. If located within a half-mile of a park, this requirement may be waived.
2. Community gathering spaces shall be situated so that they are accessible from all units via pedestrian pathways.

Common gathering places shall have enhanced paving such as articulated patterning, pavers, and stamped or color concrete.

## Common Open and Gathering Space


*Common open space and gathering space comes in a variety of forms and design. Integrate open space with pedestrian pathway and articulate buildings and windows toward shared spaces.*

### 3.8.3 Private Open Space

#### D. Design Principle:

Multifamily developments shall provide easily accessible private open space to all dwelling units. There shall be an emphasis on dwelling units opening onto private open spaces.

#### E. Rationale:

Private open spaces provide for a pleasant and functional living environment for residents. Private open spaces act as transitional areas between public open spaces and the private and semi-private spaces of the dwelling unit.

#### F. Design Standards:

1. Provide each dwelling unit with a private open space such as an at-grade patio, stoop, porch, or balcony for upper stories for the exclusive use of that unit. Private open spaces shall be a minimum of 40 sq. ft. per dwelling unit. For buildings greater than 4 stories, open space may be substituted by common amenities such as gyms, game rooms, roof decks, or communal kitchens at a rate of 40 square feet of common indoor space per unit.
2. Private open spaces shall have a minimum depth of 5 feet to ensure usability.
3. Air conditioners or other mechanical equipment are not permitted within private open space areas.

*Private open spaces add architectural interest to buildings, while being a functional living environment*

### 3.8.4 Landscaping:

A. Design Principle:

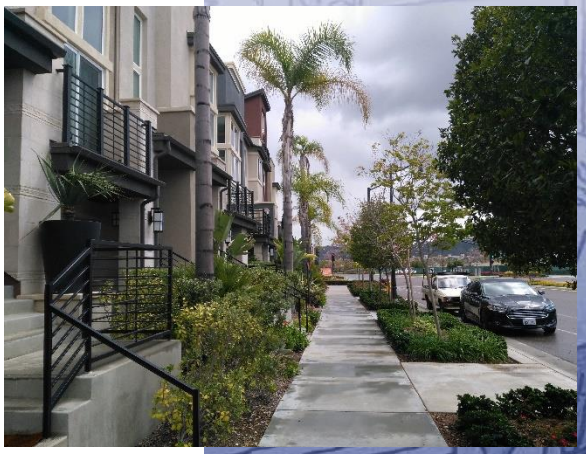
B. Landscaping shall be utilized to soften projects and connect residents with the natural environment. Rationale:

A variety of landscaping plants and materials can contribute to the visual interest of a neighborhood providing natural greenery which has been linked to increases in mental and emotional wellbeing.

C. Design Standards:

1. Street-facing elevations shall be designed with planters or potted plants adjacent to their foundation or porch face.
2. All unpaved areas shall be landscaped.
3. All mature ground cover shall be two feet or less in height.
4. All mature tree canopies shall be a minimum of six feet or more in height.
5. Trees shall be planted in setbacks and common areas at intervals of no more than 75% of the selected species mature canopy size, not to exceed 30' on center.

*Street trees and planting along the pedestrian path of travel creates shade and increases comfort for walking.*
*Street setbacks incorporate planters, landscaping, and private open space.*



*Above: Screening and locations such as sides and niches of buildings and niches for mechanical units reduce any pedestrian and auto hazards and are out of public view. Right: Street setbacks include landscaping.*

# 3.9 Lighting/ Security

## 3.9.1 Lighting

### A. Design Principle:

Project lighting shall be well thought out and designed to ensure safety while respecting the overall site's landscaping.

### B. Rationale:

Lighting can contribute to the overall aesthetic and architectural concept of a project. Additionally, lighting can enhance both security and visibility.

### C. Design Standards:

1. Parking areas and entry drives shall be lighted to facilitate safe pedestrian movement. Lighting shall be provided as required by the Zoning Code.
2. Exterior lighting shall be designed in coordination with the landscape plan to meet both minimum Zoning Code landscape requirements and photometric requirements.

## Lighting

*Lighting fixtures complement the style and material of the building, and the general environment of the development.*

*Attractive lighting in common areas adds visual interest to site design and increases safety*

### 3.9.2 Security/ Crime Prevention through Environmental Design

A. Design Principle:

Crime prevention through environmental design (CPTED) measures shall be applied to overall development designs.

B. Rationale:

CPTED can be used to reduce the perception of and instances of crime.

C. Design Standards:

1. Shrubbery between the sidewalk and building entrance or window shall not exceed 30 inches at maturity.
2. Windows shall be free of obstruction such as walls or landscaping so that there is a clear view from the dwelling units to the street, common space, and parking areas.
3. Shared facilities such as laundry or mail rooms shall be located adjacent to primary residential units or community uses such as clubhouses.
4. All exterior doors for residential units shall have peep holes.
5. All exterior doors, alcoves, stairwells, parking areas, pedestrian walkway, and recessed areas shall be illuminated with wall or ceiling mounted light fixtures.

# 3.10 Accessory Structures/ Infrastructure

## 3.10.1 Storage/Accessory Structures/ Mechanical/ HVAC/ Utility Equipment

### A. Design Principle:

Accessory structures and mechanical equipment shall be clearly integrated with the project's overall site and architectural concept.

### B. Rationale:

Unsightly and poorly located service elements can detract from the main building aesthetic and create hazards for pedestrians and autos.

### C. Design Standards:

1. The roof pitch of all accessory structures (excluding trash enclosures) shall be the same as the roof slope of primary structures. Materials and colors shall be consistent with that of the primary structures.
2. The minimum 80 cubic feet of personal storage required by the zoning code shall be integrated into the building design. Storage facilities integrated with carports shall have architectural treatment to match the buildings. Bedroom closets in the residence shall not be used to satisfy the personal storage requirement.
3. Landscaping and/or architectural treatments shall be provided to screen views of service elements including storage areas, trash enclosures, mechanical equipment, transformers, and HVAC systems. Screening shall be landscaping with a minimum of three feet in height at installation, or with architectural screens designed to match building features.

## Storage/Accessory Structures/ Mechanical/ HVAC/ Utility Equipment


*Trash enclosures that complement building architecture.*

*Accessory structures complement main buildings through materials, colors and architectural style*

*Screening and locations such as sides and niches of buildings and niches for mechanical units reduce any pedestrian and auto hazards and are out of public view.*

### 3.10.2 Trash/ Recycling Enclosures

A. Design Principle:

Trash enclosures shall be designed to be functional, aesthetically pleasing and appropriately located to minimize negative impacts to residents.

B. Rationale:

Poorly located or designed service elements detract from the livability of residential designs by resulting in increased noise and odor.

C. Design Standards:

1. All enclosures shall have routes that do not have vertical curbs that obstruct the waste haulers ability to access the containers.
2. Trash enclosures shall be constructed of the same finish as primary residential buildings.

# 3.11 Fencing/ Walls

## 3.11.1 Fencing/ Walls

### A. Design Principle:

Fencing shall be consistent with the overall architectural style or motif of the development and not obstruct physical or visual access.

### B. Rationale:

While the County recognizes the need for security measures, such measures shall not create an environment resulting in walled-in enclaves with limited connections to the surrounding neighborhood or street. Where fencing and gates are proposed, they shall be integrated into the overall design and allow direct pedestrian connections to the public right of way.

### C. Design Standards:

1. Sound walls, masonry walls, and fences shall be designed with changes in plane, height, material, and material texture. Masonry walls shall change material, plane or height every 50 feet. Fences shall have a masonry column every 40 feet. Tubular steel or iron architectural fencing may be continuous in height and material and are not required to provide masonry columns.
2. All gating shall match the style of fencing.

*Well-designed irrigation systems provide even and deeper watering.*

*Well-designed fencing and landscaping are integral parts of building and site design elements. Fencing should integrate with building design and extend to patios and balconies to create privacy screening.*

*Incorporation of existing trees within site design provides screening and aesthetic appeal.*

*Natural attributes of the landscape integrated within site design provide screening and recreational amenities.*

# 4.0 Commercial Design Guidelines

The purpose of this chapter is to provide overall planning and sustainable design principles and guidelines for commercial projects. Commercial projects are divided into three forms: commercial districts, commercial corridors, and commercial centers. Commercial districts occur as major centers of regional or subregional commercial activity. Commercial corridors contain commercial activity and bisect many neighborhoods and often are public transit corridors. Commercial centers are smaller in scale and serve the commercial needs of the neighborhoods nearby. Projects within these three types are subject to the Commercial Design Guidelines which have the goal of providing commercial projects that are well designed to meet the community design goals of the Sacramento County General Plan.

Many existing commercial districts, corridors, and centers are characterized by their auto-oriented commercial past, individually developed projects and sites, and franchise architecture. Many of these older commercial developments require revitalization. These Commercial Design Guidelines are to be used to guide this revitalization and to provide standards for new commercial development in the County.

## 4.1 Understanding Context: Commercial Districts

Projects in commercial districts should further the economic and image objectives for the district and advance healthy and sustainable communities in the County. Each project should contribute to the streetscape, pedestrian and auto access objectives, architectural and signage design objectives for the site and surrounding area. To do this, projects will need to be planned and designed to complement both existing and anticipated future investment. Project applicants need to consider the following questions.

- Site connections: How can driveway and sidewalk connections increase the connectivity and accessibility to the site from adjacent neighborhoods and development?
- Building alignments: What are the typical building and landscape setbacks along public streets?
- Streetscape and landscape design: What type trees exist along public streets? Is there a landscape plan for the corridor or district?
- Roadway and parking lot design: How can parking lots and driveways be designed to increase connectivity and safety for pedestrians, people with disabilities, and bicyclists in the district?

- Architectural context: What are the strongest architectural features in the district and how can the project complement these themes or ideas?
- Signage design: How can an overall signage concept contribute to the graphic identity of the project and the district?

It is the intent that the response to these issues shall be based on these Commercial Design Guidelines and that they are evaluated on a community life cycle basis to maximize community benefit over time and encourage projects that serve as a catalyst for positive change.


Many of Sacramento County's commercial corridors were developed with a lack of focus on pedestrian safety, access and comfort; shared access to businesses to reduce cuts; and landscaping and undergrounding of utilities.

# 4.2 Commercial District Site Design Principles and Guidelines

Commercial projects of all sizes should be planned and well designed as distinctive and competitive addresses with an emphasis on connections to the surrounding community. Their design should emphasize health and sustainability principles with strong provisions for pedestrian, people with disabilities and bicyclist access.

## 4.2.1 Community Design Objectives

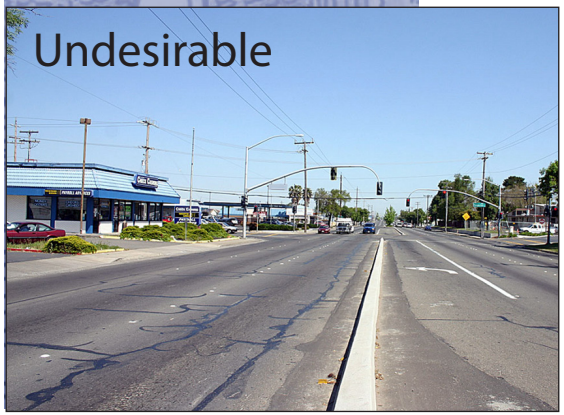
Renovated and new development should reflect the implementation of community design principles and concepts for commercial districts, corridors, and projects.

Design Guidelines

- Renovated and new projects should be designed to reinforce sustainable planning and design objectives for the surrounding district and neighborhood. This could include creation of gateways, tree-shaded parkways, open spaces, an interconnected system of pedestrian ways, or other design features.
- Renovated and new projects should be designed to reinforce sustainable planning and design objectives for the surrounding district and neighborhood. This could include creation of gateways, tree-shaded parkways, open spaces, an interconnected system of pedestrian ways, or other design features. Innovative project

This street demonstrates desirable elements in a suburban street. It has a planting strip and pedestrian scaled lighting, and planting along parking areas. It combines the pedestrian friendly elements of shopping streets with the transportation needs of suburban streets.


A typical commercial corridor street with a hodge-podge of streetscaping, curb cuts, building setbacks, and signage




design is encouraged, so long as these designs respect the building form and scale of the surrounding area, with consideration of building heights, setbacks, orientation, architectural style, and landscape transitions.

- Renovated and new projects should be planned and designed so that the siting and shape of buildings contribute to the district's identity and urban design concepts. This could include orientation and siting of buildings, composition of roof forms, and architectural treatments.
- The frontage of primary commercial roadways and connecting side streets should be enhanced by the design of commercial buildings and centers. They should improve streetscape, building edge and land use continuity. Service areas should be located so as not to disturb pedestrian circulation, land use continuity, or the function of adjacent land uses.
- Providing openings to fences and sound walls can provide pedestrian and bicycle connections to adjacent neighborhoods and should include "live-end" features. Also used in cul-de-sacs, "live-ends" provide for pedestrian access at the ends to adjoining streets, open spaces, parking lots while permitting the access point to be used as a common outdoor space. "Live-ends" should be landscaped and can include benches, providing nice areas for sitting and socializing.
- Paseos should be utilized to provide common outdoor spaces and allow for pedestrian access through the development, and connection to adjacent developments.
- Building and parking setbacks should be designed as an extension of the urban design concept for the district, neighborhood, or center. This includes the depth, edge treatment, pedestrian facility and landscaping of setback areas.
- Renovated and new projects should support urban design concepts with open spaces that create gateways, act as collectors for pedestrian systems, or provide a social focal point for a project and the surrounding district.
- Renovated and new projects should have signage and graphic identity concepts that support both project and district planning and economic objectives.

## 4.2.2 Roadway Design and Streetscaping

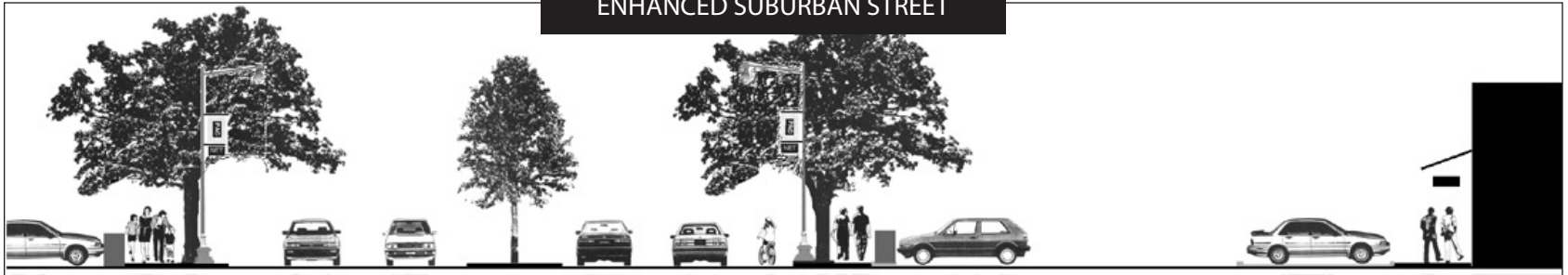
Landscape, lighting and signage for every project should contribute to the implementation of streetscape principles and concepts for commercial corridors or districts. Streetscape and landscaping should promote pedestrian activity and provide for pedestrian safety, access, comfort and connections while contributing to overall placemaking and objectives for commercial districts or centers. Landscaping and trees can be used to complement buildings and to make a positive contribution to the aesthetics and function of the specific site and area. These aesthetics contribute to the mental and emotional well-being of customers, and support economic activity. Landscaping helps reduce storm water runoff, filters water and captures carbon and air particulates to improve air and water quality, provides shade during summer months and lowers temperatures reducing heat island impacts.

It is the intent that projects be evaluated on a community life cycle basis to maximize community benefit over time and encourage projects that serve as a catalyst for change.

Design Guidelines

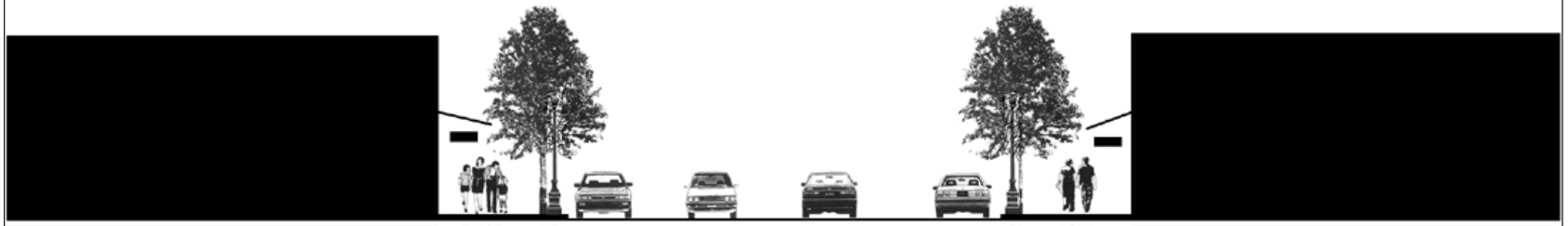
- Renovated and new projects should have an inter-connected system of roadways, pedestrian walks and sidewalks. This system should connect to the district and neighborhood and should be safe and attractive to pedestrians and invite walking activity.
- Projects should possess an overall landscape and streetscape concept plan. The plan should reinforce the placemaking, connections, and shopping environment objectives for the project and surrounding district.
- Projects should provide an overall street lighting and furniture concept plan. The plan should identify the types and location of lighting fixtures and furniture. The lighting and furniture should be a coordinated "family" with color and style that complements site and architectural concepts and invites shoppers to use it. The lighting plan should use fixtures that are energy efficient, contribute to a safe environment and reduce impacts on dark skies.
- Roadway and street design should incorporate various methods of traffic calming to support pedestrian circulation and active transportation objectives. This could include changing paving materials in crosswalks, undulations, reduced speeds, flashing beacons, etc.
- Use accent paving such as textured paving and paving blocks in driveways. Use of permeable concrete, cool pavements and pavers is desirable. Minimize and share driveways wherever possible.
- Along streets with greater than 50,000 vehicles ADT, plant trees conducive to absorbing particulates including deodar cedar, valley oak, and redwoods. Utilize canopy trees for pedestrian areas to increase shading, cool the pavement and support walking.
-

## ENHANCED SUBURBAN STREET



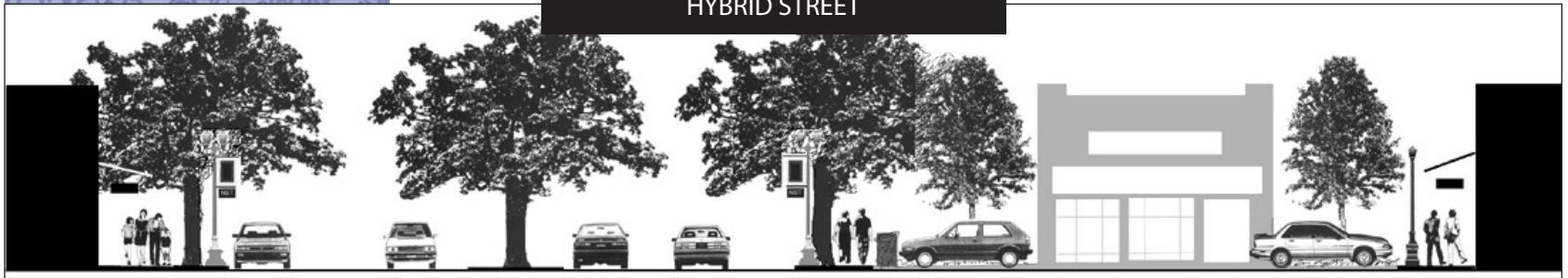
- Detached sidewalks
- Auto-scale lighting and signage
- Landscaping added to public ROW
- Setback buildings
- Consolidate curb cuts
- Connect parcels

## STOREFRONT STREET



- Planting strip and street trees in ROW
- Pedestrian-scale lighting and signage
- Buildings along the street edge
- Connected sidewalks and storefronts
- Interconnected parking and drives
- Parking behind buildings

## HYBRID STREET



- Planting strip and street trees in ROW
- Pedestrian-scale lighting
- Pedestrian and auto-scaled signage
- Some buildings along the street edge
- Connected sidewalks and storefronts
- Interconnected parking and drives
- Parking behind or next to buildings

## 4.2.3 Building Setbacks and Alignments

Buildings in established commercial addresses should have setbacks that support streetscape, circulation and image objectives for the district.

Design Guidelines

- Buildings should be sited and designed to reinforce the pedestrian experience. Building edges should be transparent and provide a visually interesting shopping experience at a pedestrian's pace.
- Buildings and centers should align and design building edges with adjacent projects so that they support overall urban design objectives for the district and shape and activate spaces and streetscape, and are compatible with adjacent projects yet balanced against the Design Guidelines.
- Building setbacks should contribute to overall streetscaping concepts for the district. The setbacks should be sized to support the size and spacing of trees and visual continuity of the district.
- When a project is located within a district with a design plan, or within an urban context including suburban locations in transition, shopping centers should define public street frontage with building edges and storefronts.
- Urban and suburban areas in transition are generally the commercial corridors in existing communities. Shopping Centers and Commercial areas in new growth areas should be guided by design principles in Specific Plans, New Community Design Guidelines and other planning entitlements, and with use of these Design Guidelines to ensure that the built environment enhances and supports active design, the pedestrian experience, and healthy communities.
- In non-urban locations, some public street frontage should be defined by building edges and storefronts as necessary to create a pedestrian experience.

This street has many desirable elements for a suburban or neighborhood storefront. It has street trees, transparent and connected shops and stores, pedestrian scaled lighting and signage, and architectural variety. Even though it faces a parking lot, it makes for a pedestrian-friendly edge.

- When necessary, setbacks should provide for landscape screening of parking and loading areas. This could include tall evergreen trees, shrubs, trellis, and/or berming.
- The corners of intersections should feature design components, such as storefronts and landscaping and should deemphasize parking lots.
- All landscaping and paving shall consider the needs and safety of people with disabilities.


A suburban retail project with storefronts and entry facing the street

## 4.2.4 Building Edges and Storefronts

Building edges and storefronts should be planned and designed to be an integral part of a district's pedestrian system.

Design Guidelines

- Building edges should contribute to a safe, comfortable and interesting pedestrian shopping experience. At least eight (8) feet of unobstructed sidewalk should be provided along storefront edges.
- Display windows should comprise at least 33% of the width of the facade that faces a public street. When large blank walls are unavoidable, they shall be articulated with 3-dimensional elements, such as planters, and softened with vines and shrubs.
- Renovated and new commercial buildings and centers should have a clearly understood system of connected storefronts and entries. Sidewalks, streetscaping and building edges should be designed in a coordinated fashion.
- Building edges and storefronts should be designed to reflect both auto-oriented and pedestrian-oriented merchandising needs of the tenants and district. Pedestrian safety, access and comfort should not be sacrificed by an auto-oriented design approach.
- Corner and mid-block pad buildings should be oriented toward and have some transparency to the street. Drive-through windows should minimize their visual and functional impact on the sidewalk, safe pedestrian circulation routes, and community design objectives, as further addressed in Section 4.2.6.

## 4.2.5 Parking Lots and Driveways

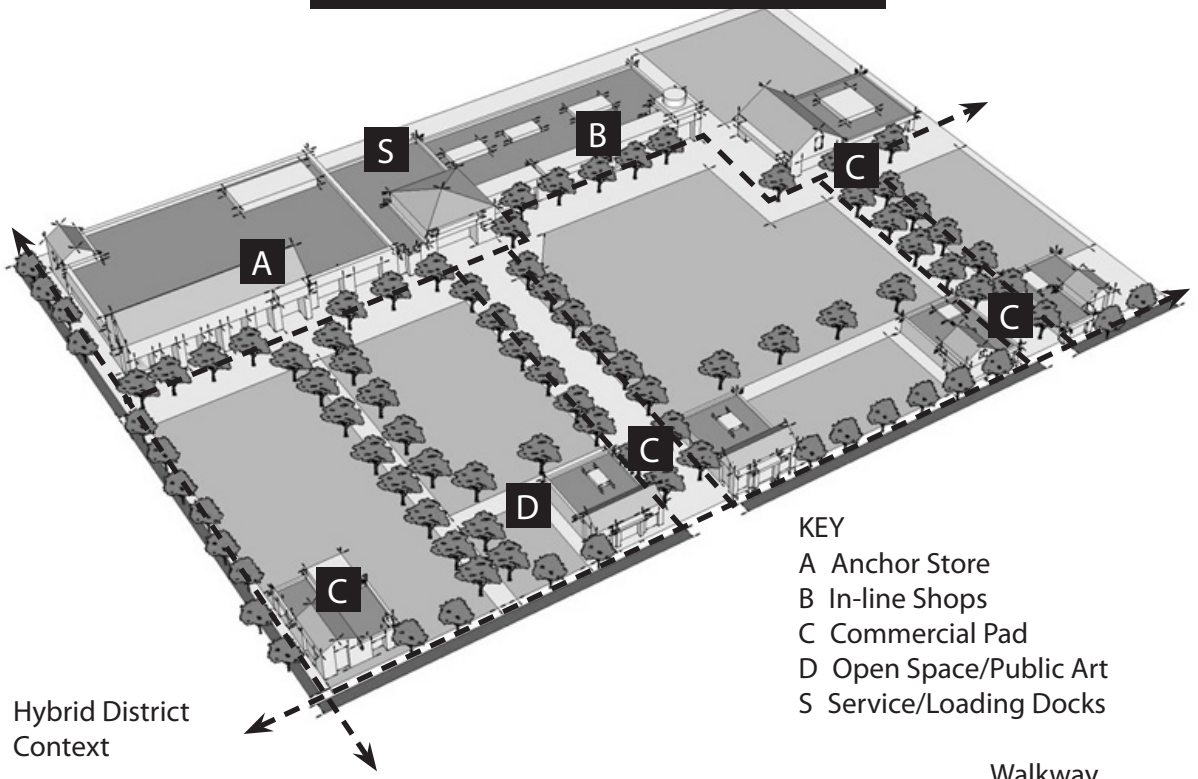
## COMMUNITY SHOPPING CENTERS

The illustration shows a site concept plan for a community commercial center.

The concept features:

- Buildings located along the street edge and parking in the interior of the site;
- Architectural variety and connected system of storefronts and displays;
- Interconnected driveways and walkway system with a small park; and
- Service areas located out of sight.

### CONTRIBUTION TO STREETS




KEY
A Anchor Store
B In-line Shops
C Commercial Pad
D Open Space/Public Art
S Service/Loading Docks

Walkway

Hybrid District Context

In suburban districts that are undergoing a more urban transition, contribution to streets could include:

- Creation of internal pedestrian "main streets";
- Residential uses/mixed-use interface with existing residential streets; and/or
- More continuous storefronts along public streets.

## Community Shopping Center

Parking lots and driveways should be planned to reduce the number of curb cuts; provide interconnectivity between sites; and designed to support pedestrian activity, safety, connections and comfort.

Design Guidelines

- Parking for commercial uses should be located next to or behind buildings. These parking areas should be divided up into smaller, landscaped lots with defined pedestrian connections.
- Renovated and new projects should be planned to reduce the number of curb cuts and driveways. Where possible, projects should share driveways and parking access with adjacent sites to provide an interconnected system of auto and service access points.
- Projects should have a hierarchy of primary and secondary drives and roads. Primary driveways should be designed as streets. This includes incorporating sidewalks, streetscape and lighting to improve wayfinding and reinforcing site design and pedestrian connection concepts.
- Parking lots and driveways should provide pedestrian connections to storefronts. Dedicated walkways through parking lots and sidewalks should be included in the design of access roadways. Distinguish walkways from driving surfaces using varied surface treatments, and raising walkways, separated or protected walkways or similar design approaches.
- Traffic calming techniques should be employed in parking and driveway areas to support pedestrian circulation concepts.
- Parking areas should incorporate best practices that include: trees, lighting, landscaped storm water features, cool[1] and pervious pavement and pavers. Plant trees and shrubs to soften the overall impact of parking areas and to provide shade and noise reduction, heat island cooling and improved air quality.

1 "Cool pavements" refers to a type of pavement technology that better reflects solar radiation and stays cooler in the sun than traditional pavements. Pavement reflectance is enhanced by using a reflective aggregate, clear binder, or reflective surface coating. While hot pavements aggravate the urban heat island effect by warming the local air and contribute to global warming by radiating heat into the atmosphere, cool pavements store less heat, increase the solar reflectance of roads and lower surface and air temperatures. Thereby, cooling stormwater run-off, to reduce the damage to local watersheds; slowing atmospheric chemical reactions that create smog; offsetting warming caused by greenhouse gases; and saving energy on street lighting and air conditioning that will reduce the emissions of greenhouse gases and other pollutants.

A well designed parking lot that includes many of the features called for in the design guidelines. In particular, this lot has canopy shade trees and thematic signage and lighting.


Clearly defined pedestrian walkways in the parking lot with a change in paving materials.


- Parking lots shall include trees to provide shade and reduce temperature, consistent with Zoning Code standards. Tree selection, planting approach and irrigation should provide for rapid growth and sustained health of shade trees. Small ornamental trees are appropriate for accent planting but should not be used as shade trees.
- Trees and landscaping elements shall be used to organize large parking areas into recognizable smaller segments that reflect pedestrian circulation and site organization and scale.
- Lighting in parking areas should be LED lights or other acceptable high energy efficiency light, with automatic controls to dim lights after certain hours or when no one is present. Lighting shall be adequate to provide for a safe environment.
- Create textures, patterns, and colors in the design of paved parking areas, entries, or other high traffic pedestrian paths, to create visual interest and distinguish pedestrian routes from other paved areas. Do not design large monolithic areas of single color untextured paving.
- Use accent paving such as textured paving and paving blocks in driveways. Use of permeable concrete, cool pavements and pavers is desirable.
- Incorporate storm water quality measures into the parking areas to treat the storm runoff and enhance the parking areas by providing shade and reducing the amount of paving.
- Where feasible, provide for electric vehicle fast-charging stations, car and bike share locations, and other alternatives such as zip car.
- Bike racks shall be designed with the most current designs that provide secure locking features and are attractive. Many bike racks double as public art to add interest.
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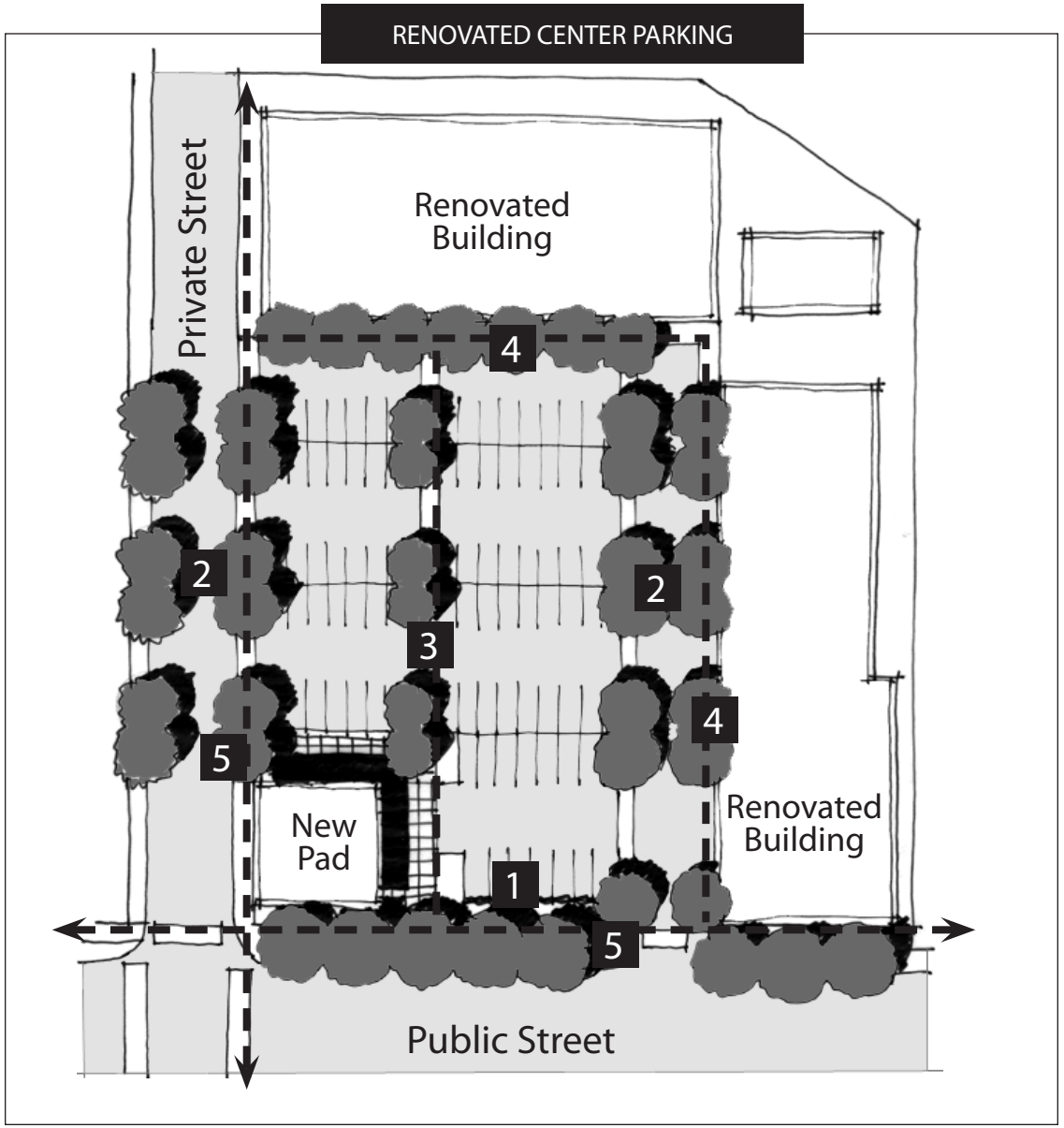
PARKING LOT DESIGN

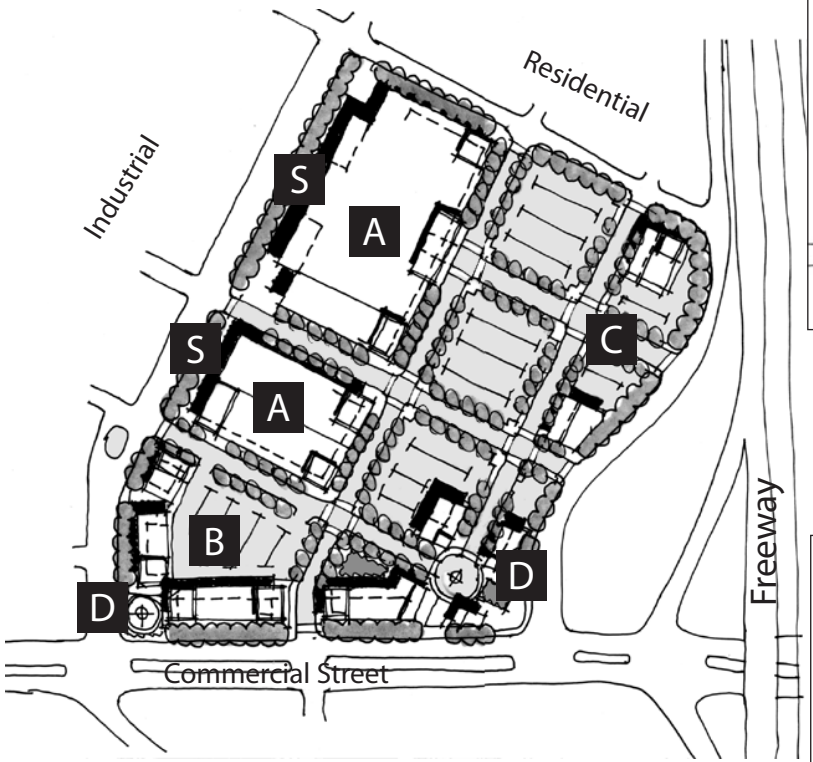
This sketch illustrates many desirable features of a retrofitted parking lot project that includes development of a new pad building.

The features include:
1. Landscaped parking lot edges
2. Shade trees to keep it cool
3. Pedestrian walkways with a special paving treatment that connect to storefronts and adjacent development
4. Pedestrian scaled lighting in pedestrian areas
5. Clear and well-designed entry signage

Existing center parking

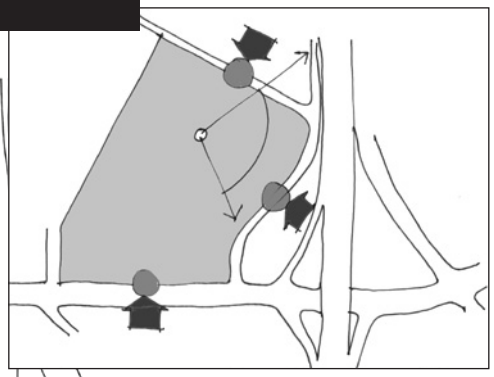


BLOCK ORGANIZATION

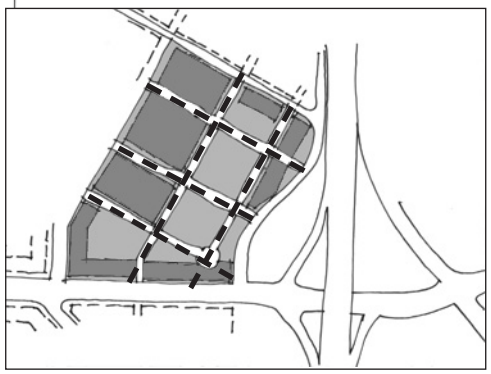



KEY
A Anchor Stores
B In-line Shops
C Commercial Pads
D Open Space/Public Art
S Service/Loading Docks

Big Box Center



Access
- Three primary access points
- Visual access to freeway for anchor and pads



Organizational Pattern
- Flexible street and parking systems
- Defining internal and public street edges

BIG BOX CENTERS

The illustration shows a site concept plan for a Big Box commercial center.

The concept features:
- Anchor and pad tenants in locations that are visible from freeway;
- Buildings located along the street edge and parking in the interior of the site;
- A flexible block pattern that can accommodate a variety of uses and provide a connected system of storefronts and displays;
- Interconnected driveways and walkway system with a small park; and
- Service areas located out of sight.

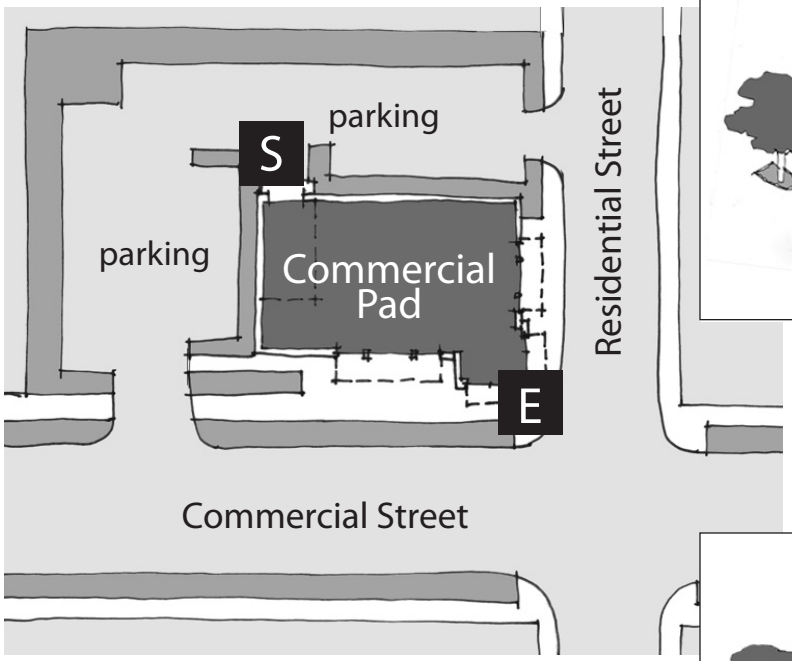
COMMERCIAL PAD PROJECT

This illustration shows a site concept plan for a commercial pad site.

The concept features:

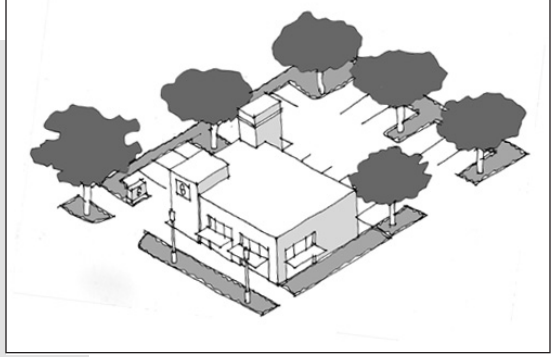
- Buildings located along the street edge or corner with parking in the side and rear of the site;
- Architectural interest and storefronts along street;
- Interconnected driveways and walkway system with adjacent sites; and
- Service areas located out of sight.


STREET ORIENTATION FOR PADS




KEY
E Entry
S Service

Commercial Pad Site Plan



Mid-Block Site

- Parking in side and back
- Street orientation
- Connected and landscaped parking lots

Corner Site

- Corner orientation with parking in rear and side

## 4.2.6 Drive-Through Businesses and Automobile Service Stations

This section provides guidance for the development and review of drive-through businesses, as well as automotive service stations, automobile repair centers, and automobile washes, which are frequently provided in combination with each other. The County Zoning Code classifies and defines the following auto service uses:

- Automobile service stations address gas stations and convenience stores of all types, including:
  - » "Primary automobile service stations," stand alone facilities devoted primarily to the retail sales of gasoline and similar motor fuels and the sale of travel aides and automobile accessories to the public, with auto service, repair, maintenance facilities hydrogen fueling stations, and electric vehicle charging stations as incidental or secondary uses; and
  - » "Secondary automobile service stations," where the retail sales of gasoline and similar motor fuels, hydrogen fueling, or electric vehicle charging stations for the public is an incidental or secondary use to a primary commercial or business establishment, such as a grocery store or government center.
- Automobile repair centers, in which the primary use is repair of automobiles, are classified and defined in the County Zoning Code as "major automobile repairs" and "minor automobile repairs."
- Automobile washes are facilities designed for the purpose of either self-service or automatic washing of automobiles, either as stand alone uses or as secondary uses to an automotive service station or other primary land use.

The design guidelines are flexibly structured to respond to varying site conditions and neighborhood settings. Automobile service stations in the County come in a variety of forms:

- Standalone neighborhood convenience gas stations and convenience stores;
- Traveler centers that may be combined with other services (typically restrooms, convenience retail, automated teller machines, automobile washes, food service, drive through restaurants, hydrogen fuel, and/or electric vehicle charging stations);
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- A secondary or ancillary use to a retail or business establishment, providing gas pumps and other services, such as drive through restaurants, automobile washes, hydrogen fueling, and electric vehicle charging stations, to provide a one stop shop; and
- Other custom formats to serve special uses or business needs.


The trend towards multi-service convenience retail centers that are less auto-oriented and more retail-oriented in character creates an opportunity to better integrate drive through businesses and automobile service stations into the diverse context of the County, while promoting walkability and supporting the design of active communities. To this end, drive through businesses and automobile service uses should be designed with the following considerations:

- Balance business needs and standardized designs with the local sense of place of the community or neighborhood. Encourage design that is responsive to the local and regional context and contributes to the established or desired character and identity of the commercial or neighborhood area.
- Support a more pedestrian-friendly environment along public streets, particularly in urban and commercial settings, and in the organization of private streets internal to a project, to support the safe access of both automobiles and pedestrians.
- Provide quality architecture and landscape design that complements or ensures compatibility with adjacent land uses and on-site activities.
- Minimize impacts to adjacent land uses from on-site activities with appropriate siting of facilities, screening of service functions, and application of landscape buffers between uses.
- Coordinate the requirements of various on-site functions within a commercial or business center, particularly shared ingress and egress points and safe internal vehicular and pedestrian access and circulation.

**Design Guidelines**

**Site and District Design**

- Encourage design that is responsive to the local and regional context and contributes to established or desired character and identity of the commercial or neighborhood area. Projects should aim to enhance the community or neighborhood.
- Projects should support a pedestrian-friendly environment along public streets and reinforce or enhance the streetscape image of the district or neighborhood.
- In urban areas and commercial corridors, building structures, such as convenience stores and lobbies and generous landscaping should be located close to the street, to help define the street edge. Within the more rural parts of the County, wider landscaped setbacks are preferable for consistency with setbacks of adjacent developments and structures.
- Service windows and stacking lanes for drive-through businesses should have minimized impact on public streets, particularly at corner sites. These facilities should be located interior to the development to minimize conflicts with pedestrians and circulation, and should be appropriately screened. Screening for drive-through lanes located interior to the development may include, but is not limited to, landscape and/or architectural features such as low walls or fences, trellises, arbors, or other architectural features. Where a drive-through lane is located between a building and the public right-of-way, screening shall be accomplished with a combination of architectural features and landscaping.
- Distinguish walkways from driving surfaces by using varied paving treatments and by raising walkways to curb level. Stacking lanes should also be clearly delineated from other driving surfaces.
- Design the majority of the pedestrian level façade facing the street highly transparent with clear glass windows and doors that animate public streets and maximize views in and out of the building.
- Provide weather protection at the main building entrance, for areas close to public transit stops, bicycle parking, walkways, and in places with pedestrian amenities.
- Provide customer entrance doors clearly visible from public streets and directly accessible from the public sidewalk. Provide customer entrance doors that are close to parking areas.
- Locate required bicycle parking close to the building entrance in a manner that does not impede pedestrian movement.

- Locate access for stacking lanes away from public streets or driveways so that vehicle queues do not block traffic on public streets or affect on-site vehicular and pedestrian circulation. Locate driveway entrances and exits as far away from the street intersection as possible, designed in accordance with the County Improvement Standards.

- Locate noise-generating uses, including drive through speakers and music, repair shop operations and machinery, car wash openings, vacuum stations, loading and refuse areas and stacking lanes away from sensitive uses (e.g., housing, schools, and day care centers). Where this cannot be avoided, buffer noise impacts with landscaping or landscaped berms and attenuating fencing in accordance with the landscape and screening requirements of the County Zoning Code.

- Provide separate stacking lanes for two or more drive-through uses, such as a car wash and drive-through restaurant located on the same site.

**Additional Siting Guidelines for Pump Islands and Automobile Washes:**

- Design automobile service stations to provide clearance and unobstructed circulation for fuel delivery trucks.

- Pump island curbs or bollards are encouraged, to provide protection to fuel dispensing units.

- Openings to wash bays should not face an adjacent residential zoning district.

- Openings to wash bays should not face and/or should be screened from the public right-of-way (except at driveway access locations). Screening should consist of landscaping or a low decorative wall, in accordance with screening requirements in the County's Zoning Code.

- Vacuuming or drying equipment should not be placed adjacent to a residential zoning district, unless separated from the residential zoning district with a building or other solid barrier; and should not be placed along a public street, unless adequately screened to reduce visibility.

**Architecture**

- The design of stand alone automobile service stations should conform to the dominant existing or planned character of the surrounding neighborhood. This can be accomplished through the use of similar forms, materials, and colors . In areas where no existing or little context exists, project applicants should work with the County to determine the character and design theme for the project.

- The design of a facility that occupies a pad or portion of a building within a larger commercial or business center should be compatible with or enhance the design elements of that center.

- Service station pump island canopies, including supporting columns and ancillary buildings should be architecturally compatible with the primary service building(s) in color, materials and building design.
- Drive-through elements should be architecturally integrated into the building rather than appearing to be applied or appear as an appendage to the building.
- All sides of a building should express consistent architectural detail and character. All site walls, screen walls, and pump island canopies, and other covered outdoor areas should be architecturally integrated with the building, with similar materials, colors, and details.

Landscaping

- The design of stand alone automobile service stations should conform to the dominant existing or planned character of the surrounding neighborhood. This can be accomplished through the use of similar forms, materials, and colors . In areas where no existing or little context exists, project applicants should work with the County to determine the character and design theme for the project.
- Incorporate landscaping that is compatible with the public realm landscape image and dominant existing or planned streetscape character of the commercial or neighborhood district.
- Landscaping should be provided near the primary building(s) to soften the structure and integrate it with the surrounding environment. Landscaping should be provided in accordance with the landscape requirements in the County Zoning Code.
- Trees should be provided along pedestrian pathways to provide shade, reduce heat island effects, particularly in parking lots, and reduce glare.
- Where site constraints require the location of the drive-through lanes, drive through areas, driveways, or parking areas between the street and the building, the view of the lanes should be minimized with the use of screening, landscaping, and other design elements, such as low decorative walls. Plant street trees, shrubs or other vegetation along the edge of the street. Use trees, shrubs and low walls to screen automobiles and automobile lights from view, while allowing visibility into the site.
- Landscaping and other screening should be installed to control the effects of facility operations, such as light, noise and vehicular movement adjacent to an existing residential or agricultural-residential use or zoning district and other sensitive uses. Refer to the County Zoning Code for landscape buffer and screening requirements adjacent to residential and agricultural-residential zoning districts.

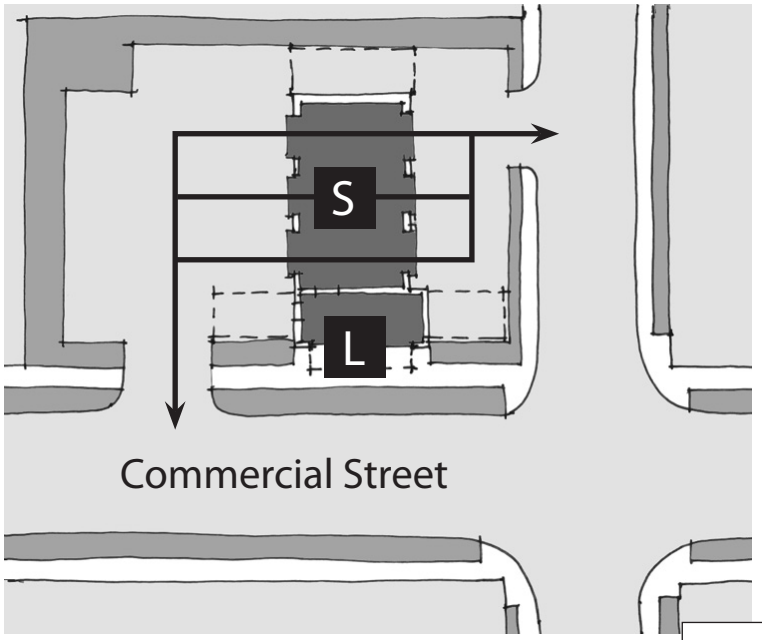
AUTO REPAIR CENTER PROJECT

This illustration shows a site concept plan for an auto service center.

The concept features:

- Street orientation for offices, lobbies and convenience stores;
- Parking and driveways located away from pedestrian sidewalks and pathways; and
- Architecturally interesting and pedestrian-friendly designs facing public streets.

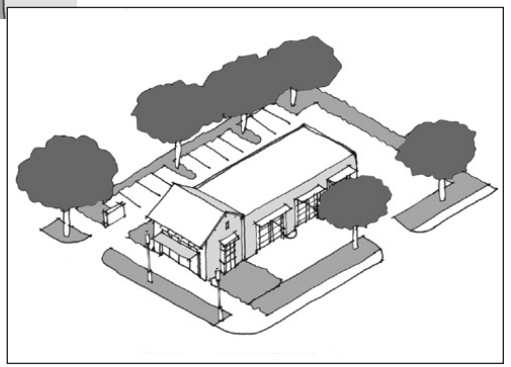
AUTO REPAIR CENTER IN CONTEXT



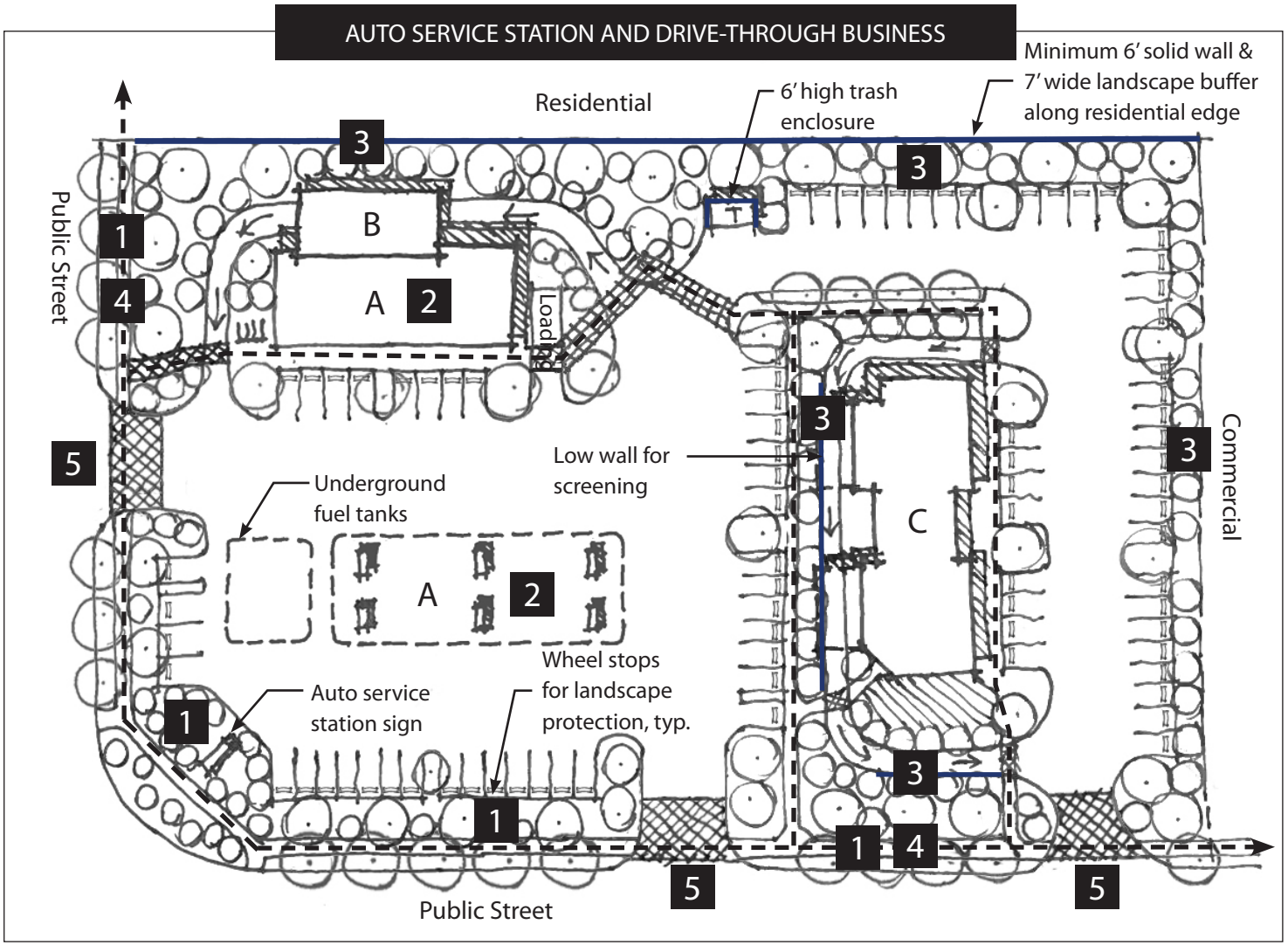

Auto Repair

- Lobby and office facing street
- Service bays in rear of site
- Parking in rear and side portions of site

KEY
L Lobby/Office
S Service Bays



Auto Repair Center Site Plan




AUTO SERVICE STATION, AUTO WASH, AND DRIVE-THROUGH BUSINESS DEVELOPMENT

The illustration to the left shows a site concept plan for an auto service station and drive-through business on a shared lot.

The concept features:

1. Trees, shrubs, and other vegetation to define the street edge, shade sidewalks and parking areas, and screen automobiles from view, while allowing visibility into the site.
2. Buildings and the pump island canopy on the site are architecturally compatible in color, materials, and design.
3. Use of walls and landscape buffers to screen and attenuate, noise from facility operations.
4. Walkways to connect the automobile service station and drive-through business with adjacent streets.
5. Shared driveways with enhanced paving at curb cuts.

– – – – – Primary Walking Routes

KEY

A Automobile Service Station Store and Fuel Pumps B Automobile Wash C Drive-Through Business

Lighting

- On-site lighting should be designed to support the safety and security of the site and be designed so that no source of light is visible off the property, unreasonably disturbs occupants of adjacent properties, or interferes with traffic operations.
- Exterior lighting design should take into account background lighting levels of other sources and the characteristics of the surrounding area.
- Direct and reflected glare should be minimized.
- Light fixtures mounted under pump island canopies should be completely recessed into the canopy, using flat lenses that are flush with the underside or ceiling of the fuel canopy. Lights should not be mounted to the top or sides of the canopy, nor should side fascias of the canopy be illuminated.
- Site and parking lot lighting should utilize full cut-off fixtures, aimed downward and away from the property line.
- Building mounted lighting should be full cut-off fixtures, aimed downward, and shielded so the light source is not visible off the property.

Signage and Corporate Identification

- Business identity, either by awnings, accent bands, paint or other applied color schemes, signage, parapet details, or materials should not be the dominant architectural feature.
- All signage should be architecturally integrated with the building façade or the site's surroundings, in terms of size, shape and lighting, such that they do not visually compete with the building architecture or design of the site.
- Signs for multiple corporations sharing the same site should be integrated as one unit to create a shared identity for the property or should be located and designed as a package, where signs do not visually compete with each other.
- Ground mounted monument signs are preferred over canopy fascia signs.
- New development should anticipate and provide logical sign areas, allowing flexibility for new uses as the building is reused over time.
- Raceways and transformers should be hidden, when possible.

## 4.2.7 Integrated Transit

New commercial development and renovation of existing centers and buildings should be planned and designed to facilitate access to transit.

Design Guidelines

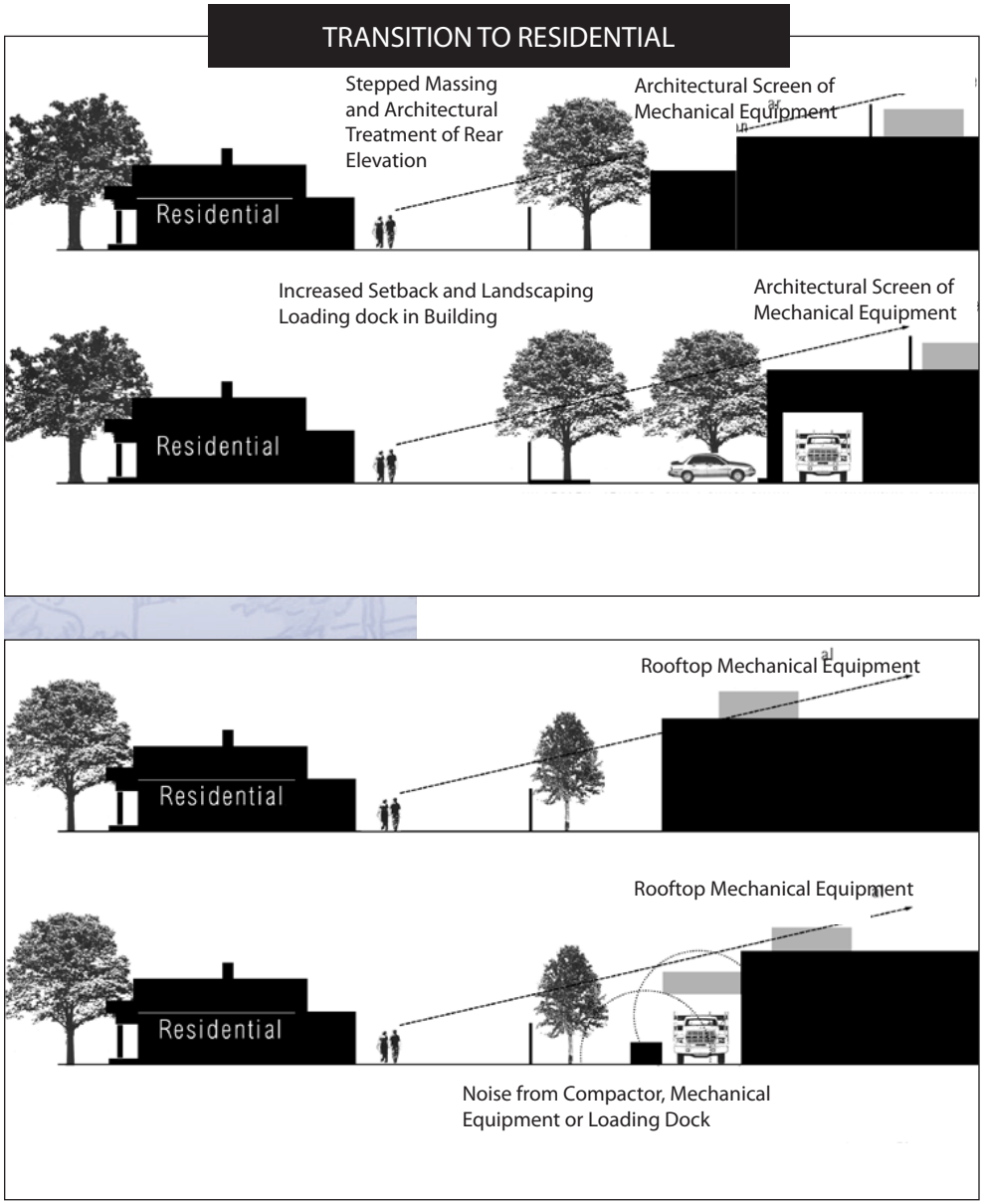
- Renovated and new projects should be clearly connected to transit services. Sidewalks should provide direct access to transit stops. Special considerations for patrons should be taken into account, such as shopping cart storage and bike racks.
- Transit stops should be conveniently and centrally located in commercial districts. They should be easy to find and collocated with commercial services and amenities. Their location and design should be coordinated with Transit provider.
- Transit stops/shelters and connecting pedestrian routes should be well lit, visible and facilitate access by people with disabilities.
- The business owner is encouraged to provide a location for convenient route and schedule information.
- Bicycle facilities should be designed into the site plan in a way that supports use of bicycles.

## 4.2.8 Transition to Residential Areas

Renovated and new projects should be designed to enhance adjacent residential neighborhoods and promote active transportation from these neighborhoods, rather than automobiles for short trips. Projects should be designed to reduce the visual, noise and use impacts on adjacent residential areas.

Design Guidelines

- Renovated and new projects should enhance the connections to shopping streets. They should provide streetscape, sidewalks, building setback and storefront design that link residential streets to main commercial and transit streets. Residents should be able to walk a direct route from their homes to commercial center stores without traversing parking lots and having to walk out of their way around perimeter fencing and walls.
- Renovated and new projects should provide a landscape plan that supports the design and pedestrian access objectives for contiguous residential streets.
- New projects should acknowledge the scale and proximity of adjacent residential neighborhoods by stepping down in height, increasing setbacks, and providing a more friendly building orientation.
- Paseos should be utilized to provide common outdoor spaces and allow for pedestrian access through the development and connection to adjacent developments.
- Unnecessary tall concrete block sound walls should not separate commercial uses from residential uses. Where sounds walls exist or are necessary, breaks in the sound walls shall be provided for access from adjacent neighborhoods and designed as "live-ends."
- Placing loading and service areas adjacent to residential areas is discouraged. Site circulation and placement of loading areas should be incorporated into the project so that it is screened and held back from residential areas. Where screening walls are required, they shall be designed as a natural extension of the architectural and landscaping concepts for the project. Evergreen trees should be used for screening and to help with noise reduction.
- Automotive and service bays should orient away from residential development and public streets. Service bays should not dominate the public street frontage.




TRANSITION TO RESIDENTIAL AREAS

This diagram indicates the desirable and undesirable site planning approaches in terms of interfacing with an adjacent residential neighborhood.

DESIRABLE

- Sets buildings toward the street corner
- Connects sidewalks to neighborhood street with landscaped storefront edge
- Hides service and loading area within building envelope
- Provides landscaped site border
- Uses low-scale and reflected lighting to direct light away from neighbors

UNDESIRABLE

- Sets mass of building along lot line next to houses
- Has curb cuts and no landscaping along residential street
- Has outdoor loading area next to residential property that is visible from street
- Has no landscape buffer at site edges
- Has tall parking lot lighting and security lighting that spills into residential yards

# 4.3 Landscaping/Site Elements

Landscape design should be a defining feature for every project that contributes to the community's health, sustainability, image, and pedestrian activity, safety, access and comfort. Landscaping should promote pedestrian activity and provide for pedestrian safety, access, comfort and connections while contributing to overall placemaking and image objectives for village districts. Landscaping and trees can be used to complement buildings and to make a positive contribution to the aesthetics and function of the specific site and area. These aesthetics contribute to the mental and emotional well-being of customers, and support economic activity. Landscaping helps reduce storm water runoff, filters water and captures carbon and air particulates to improve air and water quality, provides shade during summer months and lowers temperatures reducing heat island impacts.

Design Guidelines

- The design of landscaping for commercial projects should reduce the creation of heat islands and filter harmful greenhouse gas and smog. Landscaping should provide softscape areas in place of paving and create shade. All site areas not covered by structures, walkways, driveways and parking should be landscaped.
- Site landscaping should include stormwater quality treatment features, such as vegetated swales, to attenuate flows and remove pollutants from runoff before it leaves the site, consistent with the County's stormwater quality control measures.
- New and renovated commercial projects should use landscaping to reinforce overall site and architectural design concepts for the project and surrounding neighborhood. This includes a hierarchy of canopy trees, accent/flowering trees, shrubs and groundcover. Drought tolerant planting should be used consistent with the County Water Conservation Ordinances. Special hardscape, such as pavers, stained concrete, and stone, should be used to identify pathways and gathering places in projects. Ungrouted pavers and permeable pavements are encouraged to reduce runoff.
- Incorporate appropriate landscaping that includes a variety of trees, shrubs, and other plantings. Utilize Sacramento County's River Friendly Landscape (RFL) Guidelines for plant material selection, placement and maintenance. The sustainable RFL guidelines are water and energy efficient, reduces maintenance, improves air quality and diverts green waste from the landfills.

New and renovated commercial projects should use landscape to reinforce overall site and architectural design concepts for the project and surrounding neighborhood.

- Landscaped storm water quality design measures shall provide multiple public benefits and be integrated into open space areas to provide storm water quality benefits and landscaping benefits.
- Provide on-going maintenance to identify and ensure the timely replacement of any dead or diseased vegetation.
- Design landscaping to be compatible with building design. Use trellises, arbors, cascading landscaping, vines and perimeter garden walls wherever suitable.
- Consider security issues in the landscape design of the site, including creation of barriers and screening.
- Do not allow landscaping to impede fire access to hydrant connections.
- Preserve and incorporate existing and native trees within the project site design to the greatest extent possible.
- Retain existing mature trees in landscape and building location plans to the greatest extent possible. Where existing trees must be removed, trees shall be replaced on-site or in another location, acceptable to the Planning Director, to compensate for the loss in canopy and environmental benefits. Participation in the County's Tree Mitigation program to compensate for canopy loss is also acceptable.
- Provide all landscaped areas with irrigation systems as needed to sustain the landscape. Comply with the County's Landscape Ordinance.
- Landscaping should be used to enhance and soften screening of loading and parking areas. It should also be used to help frame views and edges.
- The design of any non-building structures such as entry gateways, pavilions, or walkway trellises shall complement their related commercial center or building design and/or theme.
- Artwork and other amenities, such as benches, murals, sculptures and fountains, are encouraged in public areas of projects. The landscape plan should identify locations and infrastructure support (i.e., lighting, power, water, etc.). Placement of amenities should not adversely impact people with disabilities by encroaching into walkways.

- Tree plantings used to satisfy the county parking shade requirements should be located in an ordered pattern that enhances the overall site image, reduces the visual impact of large parking areas, and reflects the pedestrian movement from car to buildings and communal open spaces.

- Mature trees, rock outcrops, creeks and other desirable natural site features should be preserved and incorporated into the landscape plan. Projects located adjacent to open space, creeks or wetlands should include a landscape interface that is coordinated and consistent with natural areas. A vegetative buffer should be included to treat runoff before it reaches the natural area.

- Use of known high allergen plantings is discouraged.

Drainage/Flood Facilities:

- Neighborhood parks are encouraged to be centers of neighborhood activity and could be combined with schools, community recreation centers, libraries and other civic uses.

- To encourage sufficient usage, parks and open space should be strategically located in or near residential areas and commercial districts and be accessible via roadways, transit routes, and off-road pedestrian and bicycle trails and paseos (walkways).

- Size, type, and location shall be sized and located as to support the community master plan goals.

- Flood protection and drainage facilities shall be designed to provide multiple public benefits wherever possible. Facilities shall include multi-purpose improvements consisting of recreation, the environment, storm water runoff, water reclamation, infiltration, groundwater recharge, flood control, etc. Attractive joint use basins, such as parks (in addition to Quimby land dedication requirements) or parkways with trails that also convey water to water quality basins or similar facilities and provide some water quality treatment are examples of desired multiple public benefit facilities.

- Public safety is a high priority and Crime Prevention Through Environmental Design (CPTED) principles should be applied.

- Open space should be connected to provide habitat corridors through urban environments.


Outdoor sitting and gathering places with public art add to the quality of the shopping experience, create a social focus for the project and adjacent neighborhoods, and add value to tenants that benefit from sharing patrons.

# 4.4 Commercial Architectural Design Principles and Guidelines

New projects and renovation of existing buildings should contribute to the design and placemaking objectives for their commercial district and adjacent neighborhoods.

## 4.4.1 Architectural Design Concepts

Projects in specific plan or other special planning districts should support existing architectural design policies and concepts. Every renovation and new commercial project should pursue architectural concepts that are compatible and further image and economic goals for the district and adjacent neighborhoods. Consult with the Office of Planning and Environmental Review for projects in these areas.

Design Guidelines

- For freeway and arterial-oriented big box centers, design themes should tie together all the tenants in the center. When multiple centers are located in the same district, they each should provide design concepts that enhance the continuity of the street as a single business address.
- In aging strip districts, new and renovated commercial projects should strive to introduce new design themes and concepts emphasizing pedestrian safety, access, comfort and interconnectivity.
- New or renovated freestanding commercial pad buildings should be designed to meet both the merchandising needs of the tenant and image objectives and design themes for the district.
- For renovated or new commercial projects in a residential context, they should reflect the architectural traditions, scale and character of the adjacent neighborhood.
- The use of green and sustainable development standards and practices in planning, design, construction and renovation of new and existing buildings should be used wherever possible. Sustainable green infrastructure should be utilized wherever possible.

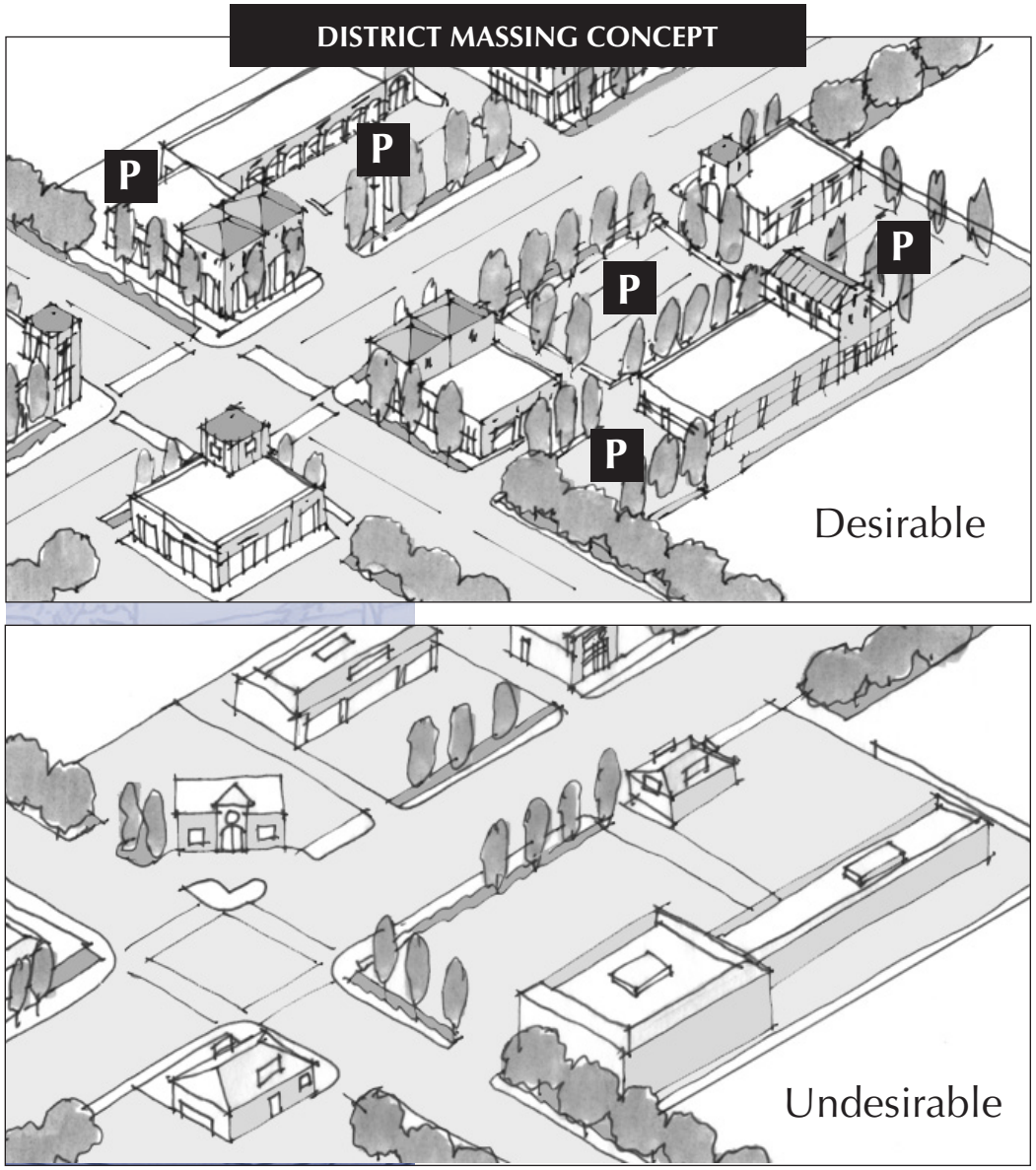
## 4.4.2 Building Form and Massing

Building massing and orientation should result in a pleasing and coherent composition of building elements and spaces.

Design Guidelines

- The placement and shape of buildings should support placemaking objectives for projects. Buildings should shape, enclose and define pedestrian edges and spaces and streets.
- Freestanding "big box" stores are discouraged. Large stores should be integrated into in-line shops or wrapped in storefront buildings.
- A coherent family of roof forms should support urban design and site concepts. This could include creating gateway elements, reducing the scale of large buildings to better fit a fine-grained commercial or residential context, or support placemaking objectives.
- Roof forms or parapets should be continuous, not superficial forms limited to the most visible areas.
- The massing of a commercial center should result in well-proportioned buildings. Bay spacing, horizontal and vertical rhythms should have a pleasing composition.
- Long, unbroken blank walls are discouraged. Each side of buildings should have an uniform approach to design and detail. Any non-pedestrian focused façade shall have articulation related to the overall building design.
- Corner bay articulations, stepping and varying wall planes, raising and lowering parapet walls, and trellises can be used to reduce the visual monotony of large buildings. Varying building height with one, two or and three-story forms is strongly encouraged as a way to increase visual interest.
- Canopies, arcades and other architectural treatments, such as reveals, recesses, projections and cornices can be added to buildings to give tall walls a pedestrian-friendly scale.

The shopping centers below have unifying design themes. The top example uses a uniform architectural style with variations in scale. The lower example has a variety of styles but emphasizes a strongly defined "main street" image and pedestrian orientation.


*MAKING CONNECTED SPACES*

*The illustrations on the right show desirable and undesirable approaches to shaping and site planning commercial buildings.*

*DESIRABLE*

- *Responds to urban design objectives for district gateway*
- *Shapes, connects and activates pedestrian edges and spaces*
- *Reduces visual size of overall building by articulating building and roof forms*
- *Pleasing and well proportioned composition of building elements*

*UNDESIRABLE*

- *Ignores urban design and streetscape objectives for district gateway*
- *Does not create connected, comfortable or defined pedestrian spaces*
- *Presents large and unarticulated building and roof forms*
- *Poorly proportioned building elements*

## 4.4.3 Architectural Design and Features

The architectural design of projects should have a vocabulary of design elements that contributes to overall design and image concepts at a district and pedestrian scale.

**Design Guidelines**

- Architectural details such as arcades, recessed exterior balconies, changes in façade treatment, window awnings, canopies, setbacks, recesses, reveals, or other building elements should be used to enhance the building and streetscape character.
- Franchise architecture should be minimized and dealt with in the context of the surrounding area. Franchise architecture includes pseudo-historic styles or "trademark" roof shapes, which sacrifice the integrity of a project or district to promote a single tenant.
- The composition of building elevations should elaborate on massing and urban design objectives for commercial projects and their districts.
- The design of renovated and new projects should employ architectural concepts that have a unifying vocabulary of forms, design elements, details and materials. All facades of buildings should draw on the same vocabulary of forms, detail and materials.
- Integrated base wainscoting, cornices, canopies, awnings, brackets and other design features that add a finer grain of detail and design are encouraged.
- Building entrances should be designed as prominent features. Canopies, porticos, recessed entries, added ornamentation and other design elements should enhance the design of entries.
- Refer to Section 5.4.2.E for guidelines on cargo containers used for commercial building structures.

*These photos show features that are desirable for creating pedestrian friendly shopping edges. The designs have transparent storefronts, wide sidewalks with areas to sit, and integrated awning and signage concepts.*


## 4.4.4 Materials and Colors

Selection of materials and finishes for new and renovation projects should be of high quality and reinforce overall image and massing concepts..

**Design Guidelines**

- Architectural materials should convey an image of quality and durability. Buildings shall be constructed with high quality materials that are durable and enhance building character. Stucco, brick, stone, terra cotta, tile, exterior insulation and finish systems (EIFS), or other solid-facing materials should be used. Certain materials have an inherently inexpensive, insubstantial, or garish quality, and are discouraged. These include:
  - » Roofs of composite shingles, painted tiles, metal or other sheet material.
  - » Walls of vinyl, plywood, or other sheet materials.
- Use sustainable building materials that are high quality, durable, provide energy efficiency benefits, require low maintenance, and complement the design of the building. Use of quality recycled products is encouraged.
- Use of "Permanent" and/or cool roof products and materials with reflective surfaces are desirable because of their low maintenance, energy conservation and insulation values.
- Employ Energy Star appliances and energy efficient lighting in construction, to the extent feasible, consistent with the adopted Green Building Policies and requirements.
- Maintain windows free of obstructions and signs to promote maximum visibility of merchandise, and visibility by Sheriff patrols consistent with CPTED strategies.
- Materials and their use should reinforce and enhance architectural concepts.
- Visible roofs should be designed as an integral part of the building design, and clad in clay, concrete tile, or the similar high quality materials.
- Walls should be clad in substantial materials and be well detailed to give walls a pedestrian-friendly scale. Architectural treatments including canopies, awnings, trellises, and other architectural treatments should be included to provide a high quality storefront design.
- A variety of materials should be used on building faces visible to the public. Accent materials shall be of high quality materials that do not appear as an appendage.
- Faux-styles are discouraged. When buildings are designed with obvious references to a period style, materials shall

be consistent with that period or style. Honest interpretations of historic styles are acceptable.

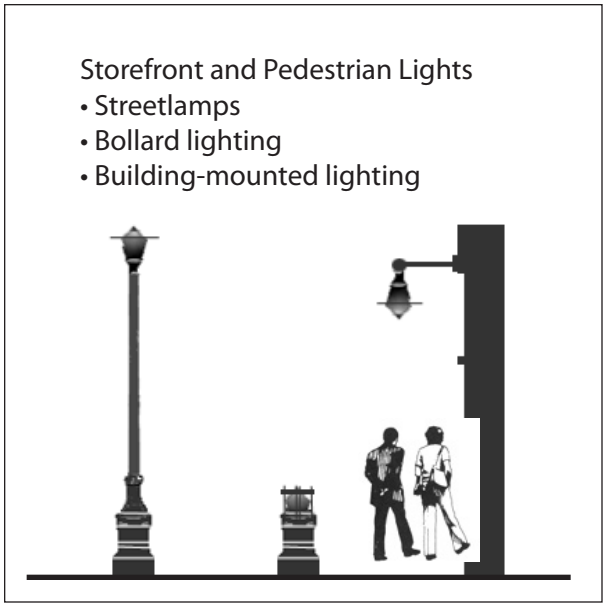
- The use of color is encouraged; however, garish colors and materials are discouraged.
- Ground floor storefront display windows should be transparent clear glass. Awnings and canopies should be used for sun protection. Windows on upper floors may be lightly tinted, but should not be reflective.
- Exterior cart storage areas adjacent to buildings shall have an enclosure with a design consistent with that building.
- Any fenced or screened outdoor seating or vending areas next to a building shall have the enclosure designed to be consistent with the building design.

## 4.4.5 Lighting

Lighting should be an integral part of the planning and design of commercial projects, anticipating the needs of the shopping experience, businesses and adjacent residential areas.

**Design Guidelines**

- Lighting in service areas should be the minimum required for operation, and be designed to minimize visibility of those areas.
- Low, pedestrian-scaled lighting fixtures are encouraged to help identify and light pedestrian routes.
- Lighting should provide for business interest even after hours, when business is closed, to contribute to pedestrian presence and sense of safety.
- Provide energy efficient lighting in all common areas and buildings, including pedestrian and vehicular routes. The emphasis should be on personal safety, with lighting landscape or building surfaces secondary.
- Light fixtures should face downward or employ shielding to reduce light sources and visibility from outside the site.
- Lighting in parking areas should be LED lights or other acceptable high energy efficiency light, with automatic controls to dim lights after certain hours or when no one is present. Lighting shall be adequate to provide for a safe environment.
- All lighting fixtures visible to pedestrians shall be designed to minimize glare.


## LIGHTING

These illustrations demonstrate how lighting concepts should consider general lighting, pedestrian and security needs while adding to the visual interest of commercial centers. They show how lighting is kept focused on the site to reduce glare on adjacent areas.

Light fixtures should face downward or employ shielding to reduce light sources and visibility from outside the site.

## LOADING AREAS AND TRASH ENCLOSURES

The Guidelines encourage integrating the design of loading and service areas into the overall development. This example provides architectural treatment for a loading dock. Trash enclosures should be architecturally designed to match the retail and commercial buildings.

## 4.4.6 Service Areas

Service facilities should be concealed from public view.

Design Guidelines

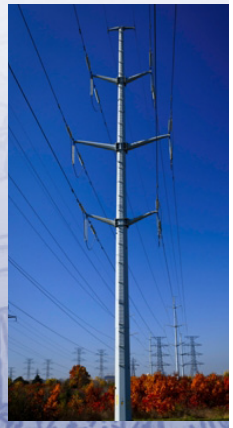
- Trash bins and compactors, utility meters, transformers, and other service elements should be enclosed or otherwise completely concealed from view. Service elements, including screening with walls or fences, should be designed as integral elements of the commercial project's architecture or landscaping.
- Services, utilities, and equipment should be enclosed or buried and should be placed outside of landscape planters at gateway entrances, or otherwise concealed from view.
- Roof-mounted equipment should be concealed by enclosures that are consistent in design with the building design.
- Coordinate with utility companies to encourage the placement of utility fixtures, such as fire backflow preventers and electrical boxes, outside of planter areas and/or to screen such fixtures.
- Provide trash and recycling education information near enclosures. Enclosures shall be in a safe and secure location and shall be kept clean and odor-free.
- Trash enclosure areas shall be designed to the County's latest storm water quality source control design standards and shall provide trash and recycling education information.
- Radio and television receiving dishes should be located to the side or rear of the lot (or on that portion of the lot most distant from the street). Any dish located within a side yard or corner lot should be located in the back portion of the lot, furthest from the fronting street. Receiving dishes are encouraged to be screened from view from the street with enclosures that are consistent with the building design.

Wireless Communication Facilities:

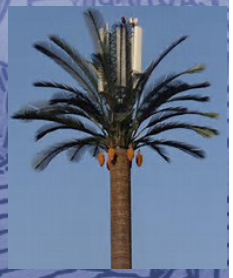
- Refer to the County Zoning Code for development standards for wireless communication facilities, in addition to the following guidelines.
- The addition of wireless communication equipment on existing structures, including roof-mounting and co-location on existing poles, is preferred.

Examples of stealth wireless communication facilities:

Mounted on a street light pole



Mounted on a utility pole



Designed to appear like a palm tree

- Roof-mounted antennas and equipment are required to be constructed, mounted, and painted to blend in with the predominant architecture of the building and/or appear as part of the building.
- New towers and related structures should use materials, colors, textures, screening, and landscaping that best allows them to blend in with the prevalent architecture of the project or with the natural features around the site, as applicable. Neutral grays, blues, greens, browns, and dull metallic colors are recommended. Artistic and stealth designs are also encouraged; however, each structure will be evaluated individually for approval by the County.
- Existing site features, including trees, mature vegetation, and structures should be used as screening, when possible, to allow new facilities to blend in with the background at increased site distances.
- Use of "stealth by design"[2] is encouraged, to disguise and ensure new facilities are compatible with the surrounding environment. Disguising or camouflaging cell towers and cell tower elements helps to preserve the aesthetics of the project site while maintaining purpose and function. Examples of stealth designs include flagpoles, utility poles, street or parking lot lights, bell towers, clock towers, tree-like structures (e.g., monopines or monopalms), public art, and etc.
- Use of pole structures (e.g., street lights, utility poles, and flag poles, as shown in the examples below), compatible with the neighborhood streetscape character, are preferred. Placement of such structures should be coordinated with existing development, so as not to interfere with public access, including Americans with Disabilities Act requirements. The height of pole structures should complement and not exceed the height of existing street lights or utility poles within the neighborhood and shall not exceed the acceptable heights for structures permitted by the County's Zoning Code.
- Where a new tower is constructed, it should be enclosed with fencing , not less than six feet in height; composed of solid wood, masonry, chain-link fencing with slats, or other approved alternative; and equipped with appropriate anti-climbing devices, to protect against unauthorized climbing. Alternatively, equipment shelters located at the ground level should be raised above a 6 inch curb and screened with landscape materials or enclosed, as appropriate, to protect against potential vandalism; or should otherwise be buried underground.

2 "Stealth by Design" is an approach to architecture that disguises buildings or structures to blend with their surroundings, while maintaining purpose and function.

# 4.5 Commercial Signage

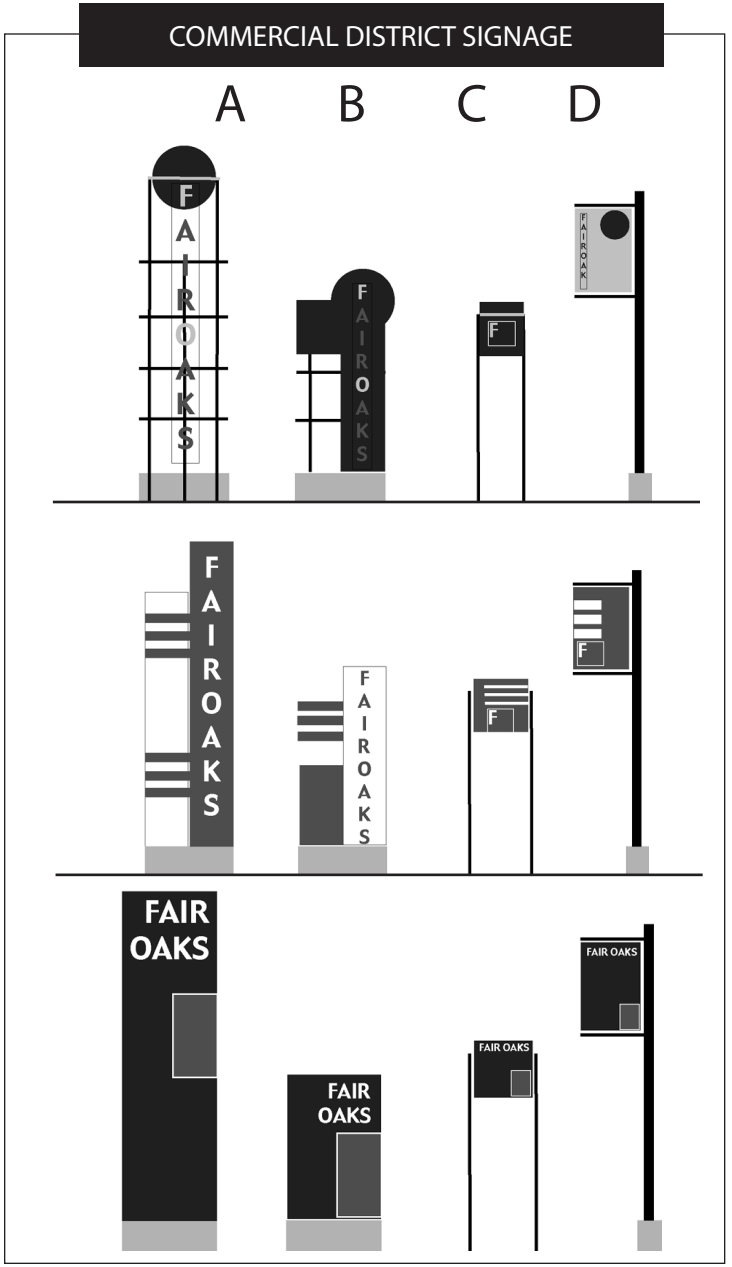
Signage should contribute to the graphic identity and wayfinding objectives for the commercial district, center, or project while reinforcing the project's architectural and site planning concepts. New free-standing and monument signs require design review.

## 4.5.1 District Signage

Development and public works projects in specific plan or special planning areas should support signage policies and design concepts. Signage identifying shopping and commercial districts should support both wayfinding and graphic identity objectives both day and night. The signage plan should provide consistency throughout the district.

Design Guidelines

- District image themes and design concepts should be reflected in district-wide signage.
- Median, monument, and other district identity and wayfinding signage should be designed and located as part of an overall district signage plan. Signage must comply with ADA requirements.
- Placement and maintenance of district signage must be coordinated with the County Department of Transportation.




FAMILY OF SIGNAGE
This drawing illustrates the "family" of signage for a commercial district.
The signs include:

A. District monument sign
B. Site entry signage
C. Wayfinding signage
D. Banners

These photographs show signage and public art in a multi-tenant commercial center. They reflect the needs of the individual tenants while providing a unifying graphic identity and amenities.



## 4.5.2 Signage for Multi-Tenant Projects

For commercial development with multiple tenants, monument, entry, wayfinding, tenant and other signage should be designed as a "family."

Design Guidelines

- Commercial centers should have an overall "Master Signage Criteria". They should express a "family" of signage that supports the merchandising needs of tenants, wayfinding, and graphic identity objectives for the project, district, and adjacent neighborhood. Signage must comply with ADA requirements.
- Commercial projects' signage plan should have designs for known tenants and future unknown tenants.
- Large garish signs unnecessary to the commercial use of a commercial center are discouraged.
- Monument signs are preferred and encouraged rather than pole signs unless pole signs are authorized within a designated district with specific guidelines and architectural intent.
- Affixed individual characters for signs are encouraged.

## 4.5.3 Signage for Single-Tenant Buildings and Pads

Design Guidelines

- Signage for single tenant buildings should be developed to reflect landscape and architectural concepts for the project.
- Signage for single tenant commercial buildings and pad buildings should be designed to complement the architectural design. The sign location, shape, letters and lighting should "fit" the building's facade.
- All the building's signs should be designed as a one graphic idea. An unrelated and uncoordinated building, window and entry signage is discouraged.
- Monument signs are preferred and encouraged. Cabinet signs (i.e., box signs that are typically mounted on walls) are discouraged.
- Affixed signs with individual characters are encouraged
- Affixed signs should be placed only on vertical surfaces below the eaves or parapet line.
- Signage must comply with ADA requirements.
- These guidelines are intended to apply to a new sign proposed in conjunction with the construction of a new commercial building, remodel, or tenant improvements where a new sign is proposed, and are not intended to apply to the replacement of existing signage.

## 4.5.4 Water Tanks and Towers

Design Guidelines

- Tower structures should be designed as site area landmarks and integrated with the existing environment or new site development.
- Logos, murals, or other works of art may be painted or attached to water tanks, towers, or other structures, permitted under the County's Zoning Code.

- Water tanks and towers should use colors and landscaping that best allows them to blend in with the prevalent architecture of the project or with the natural features around the site, as applicable. Artistic designs or otherwise, neutral color shades are recommended; however each structure will be evaluated individually and approved by the County.
- Signage on water tanks or towers should be used to identify the project, a community or neighborhood, or community services and events on the site, but should not be used to advertise individual businesses, tenants, or products.
- The tower base should be integrated into the surrounding landscape. For example, by allowing safe public access beneath it, enhancing with landscaping (where appropriate), and incorporating plaza or open space that serves as a transition to adjacent ground level uses.

## 4.5.5 Billboard Signs and Digital Billboards

Design Guidelines

- In accordance with the County's Zoning Code signage standards, signs shall not create a distraction to drivers, such as moving or rotating signs and signs that include words, phrases, symbols, lights, motion, sound, fumes, mist, or other characteristics that may interfere, mislead, or confuse traffic. The location of signs should not interfere with on-site vehicular circulation or restrict visibility to traffic on adjacent streets or parking areas.
- Signs should be scaled in proportion to site or building elements and use high quality materials, colors, and landscaping that complements the design themes of the site development.
- The size of signs should be scaled to its intended audience, whether scaled to be visible from a moving vehicle or to provide information to pedestrians.
- The base of the sign, where accessible to the public, should be designed as part of the pedestrian or commercial shopping experience. It should be designed with a pedestrian-scale and enhanced with landscaping, art, or other pedestrian amenities or features, where appropriate.

### 4.5.6 Temporary Signage

Design Guidelines

- Temporary signs permitted by the County for commercial projects should be designed to a similar standard as permanent signage reflecting the same overall objectives.

## 4.6 Operational Elements

In many cases, the proposed use of a building or the operational characteristics of the use may influence site design. Public and private spaces often have different screening and safety needs, and the intended hours or anticipated noise levels may influence the entryways, lighting, access, and orientation of the building, particularly when located close to a residential neighborhood.

The following guidelines should be considered in the site design for all new commercial, mixed-use and employment projects, and also incorporated into future business practices.

Design Guidelines

- Business hours should generally be confined to between 6:00 a.m. and 11:00 p.m., and may be further reduced depending on proximity to nearby residential uses.
- Security lighting should be coordinated with the Sheriff, and should be dimmed during late-night hours or equipped with motion detection features. Use of cameras for security is recommended.
- Improve and/or increase access to fresh and healthy foods, such as partnering with the Health Education Council on Healthy Stores and Healthy Restaurants Initiatives. In partnership with the Health Education Council and others: make healthy foods, local fruits and vegetables, and other staple items more visible, accessible, affordable and attractive to neighborhood residents, and increase retailer sales and resident consumption of healthy foods.
- Encourage the use of healthy food menu choices for drive-through and sit down fast food restaurants. Participation with the Health Education Council and Healthy Restaurant Initiative is suggested in order to support business owners in the success of this program.
- Promote access to and provide incentives for the use of public transportation.

- Promote the use of bicycles, walking, and other healthy alternatives to vehicular travel.
- Noise generating activities, such as loading and unloading, should be confined to normal business hours, and should be minimized during the early and late hours, especially when located near residential uses. Compliance with the County Noise Ordinance is required.
- Provide appropriate setbacks and areas for outdoor use by customers (e.g., outdoor gathering places for smoking, talking or waiting to enter the business) so as not to obstruct the sidewalk or access to other businesses within the commercial center. Provide outdoor seating and shade for customers to socialize as space allows.
- On-site security should be used during special events or sales to control access, parking, and to discourage loitering outside of the business.
- Wheel stops or similar measures should be used to prevent shopping carts or utility carts from leaving the perimeter of the property or commercial center.
- Maintain landscaped areas, lighting and security features consistent with CPTED strategies and in a manner to provide a safe environment for customers and employees.
- Maintain windows free of obstructions and signs to promote maximum visibility of merchandise, and visibility by Sheriff patrols consistent with CPTED strategies.
- Commercial Centers should attract a wide range of commercial and retail businesses. Providing healthy food sources and choices; such as full-service grocery stores, ethnic food markets, farm stands or farmers' markets, and food establishments that provide fresh food supporting sustainable local food systems is desirable.
- Incorporate co-location of other facilities or services that supports the needs of residents (i.e. health care center, recreation center, farmer's market, drug or corner store, deli, bank, etc.).
- Consider utilizing commercial waste haulers that support food waste to fuel/energy projects and programs and that utilize clean fuels in their waste trucks.

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# 5.0 Office, Business Park, Institutional and Industrial Development Design Guidelines

The Guidelines provide criteria for improving the layout, architecture and signage for business and industrial districts.

The purpose of this chapter is to provide overall planning and sustainable design principles and guidelines for office, business park, institutional, and industrial developments, either located in each of their respective zoning districts, as the predominant land use character of the project area, or for specific land uses classified under these zoning districts. This chapter addresses all types of non-residential development, except commercial and mixed-use district developments, addressed in Chapters 4 and 6, respectively. Where there is uncertainty about the type of project and applicable design guidelines, the County will determine which of the district settings are most applicable and best describes the physical character of the local context and the section of the design guidelines that should apply.

The Guidelines are to be used to review business district designs, as well as individual project designs,-while advancing healthy and sustainable communities in the county. Business district design concepts apply to corporate office and medical office campuses; public or institutional places of worship, government centers, civic centers, senior or congregate care facilities, and hospitals; business or industrial park complexes; and other similar uses that are often planned as campuses with common vehicular access and a need for a system of pedestrian connections. Business district design concepts also apply to multi-use project developments with secondary uses that relate to or complement the services of the primary use, such as places of worship that may include ancillary administrative offices, school or training facilities, social or day care centers, and other services; and senior and assisted living facilities that may incorporate a variety of living, skilled nursing, hospitality, entertainment, social, and recreational uses and amenities. Other developments-are comprised of individual sites in a non-campus setting, including single tenant and multi-tenant office, industrial, and institutional developments and public and civic use developments (e.g., community centers, libraries, civic centers, clubs, lodges, and places of worship) that may occur in a variety of neighborhood settings. Pedestrian scale and connections need to be addressed in all settings.

# 5.1 Understanding Context

Office, business park, institutional, and industrial developments can occur in a variety of contexts: from urbanized or urbanizing mixed-use commercial corridors, industrial sites or centers in transition to other uses, to suburban or rural residential neighborhood areas. Each setting warrants differing responses for project development and design. The guidelines in this chapter establish the basic design principles and concepts that should be used to review the unique characteristics of these types of project developments, in the context of project site conditions and neighborhood settings. Office, business park, institutional, and industrial developments should be planned and designed to reflect both the needs of the tenant and the identity and quality of the business district or neighborhood setting. Each project should contribute to the streetscape, sustainable site planning, pedestrian connectivity and architectural quality objectives for the district and surrounding area. To do this, every office, business park, institutional, and industrial development needs to be planned and designed, with sustainability in mind. Development that is renovated or new development must complement existing development, while anticipating future investment and changes in use. Each project sponsor should be prepared to answer the following questions pertaining to the site context.

- Site connections: How can site planning provide pedestrian and vehicular connections between buildings in and outside the project? What other safety elements should be included?
- Building alignments: What are the building edge and spatial relationships among groups of buildings? What is the orientation of building lobbies and entries?
- Streetscape and landscape design: What type of landscaped setbacks and treatments exist along public streets? What landscaping needs replacement? How can the landscape plan be enhanced to attract pedestrians and promote walking? How can the landscape help to improve the environment?
- Roadway and parking lot design: How can parking lots and driveways be designed to increase connectivity and safety for pedestrians, people with disabilities, and bicyclists in the business district or neighborhood? How can trees and cool, permeable pavements be used to reduce heat generated by parking lots?
- Architectural context: What are the strongest architectural features in the business district or neighborhood and how can the project complement these themes or ideas?
- Signage design: How can an overall signage concept contribute to the graphic identity of the project and the business district setting?

# 5.2 Project Design Principles and Guidelines

Office, business park, institutional, and industrial developments should possess an overall design framework that provides an internal organizational structure and a contextual response to the surrounding neighborhood.

Office, business park, institutional, and industrial developments should be designed with good pedestrian connections to public transit and public realm circulation networks.

Use of landscaping features can provide cohesion and continuity through the various districts and neighborhood areas in the county.

## 5.2.1 Project Design Objectives

Office, business park, institutional, and industrial developments should be planned to accomplish both functional and business district or neighborhood design objectives.

Design Guidelines

- Business district or individual project developments should possess a clear organizational structure that coordinates with and connects with the surrounding neighborhood. The urban design concept for business district development should make it a distinctive address, with a definable hierarchy of streets and focal points. Individual projects should be designed to relate and contribute to the identity and urban design concepts of the neighborhood. This could include the siting, massing, and architectural treatment of buildings.
- Office, institutional, business, or industrial park complexes should be planned to provide centrally located or accessible commercial services and conveniences for employees, and visitors. A system of pedestrian paths and walkways should be designed to connect businesses to common outdoor spaces, services, public amenities, and adjacent developments.
- Office, business, and industrial parks should provide a deliberate gateway and entrance design that respects the streetscape character and identity of the surrounding neighborhood. The frontage of primary roadways and connecting side streets should be enhanced by the project design. Projects should improve the continuity of the street/streetscape, surrounding uses, and the aesthetic character of the neighborhood.

- The interface of office, business park, institutional, and industrial developments with other types of uses, particularly residential, should be planned carefully. The transition in scale, use, visual privacy, noise, odors, operational hours and traffic flow should respect the needs and livability of adjacent neighborhoods.
- Industrial parks or projects should be clearly separated from residential areas with adequate buffers to them from noise, vehicular, and development scale impacts.
- Projects should have signage and graphic identity concepts that supports the project's planning objectives and design themes.

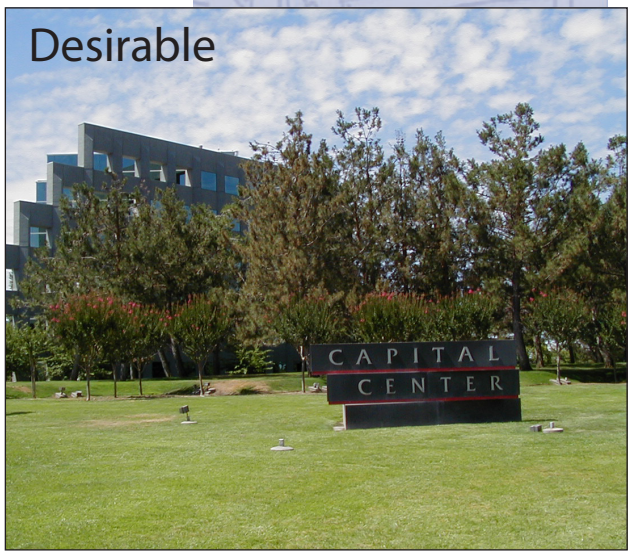
## 5.2.2 Roadway Design and Streetscape

Streets should be designed to reflect both the placemaking and circulation objectives for new and existing business districts or neighborhood areas.

Design Guidelines

- Business district designs should have complete streetscape concepts and strategies that contribute to their identity, safety and comfort.
- Streets should have a design hierarchy. Primary address streets should demonstrate a "higher order" of streetscape, setbacks, medians and other distinctive features. Projects should be sited and designed to address the surrounding street hierarchy and context.
- Functional street requirements for truck and emergency vehicle access should be accommodated and not over-sized. Streets should not be used for queuing or backing into loading and service yard areas.
- All streets should be designed to encourage pedestrian and transit use, with transit access in close proximity to buildings. The design of raised sidewalks and planting strips should contribute to the comfort and safety of walking in business districts and connectivity to neighboring areas or uses.
- Traffic calming techniques, such as a change in elevation and paving materials, should be used at crosswalks, drop-offs and lobby zones – in addition to appropriate signage and speed limits.

These photos show two business park streetscapes that provide a deliberate gateway and distinctive entry design.

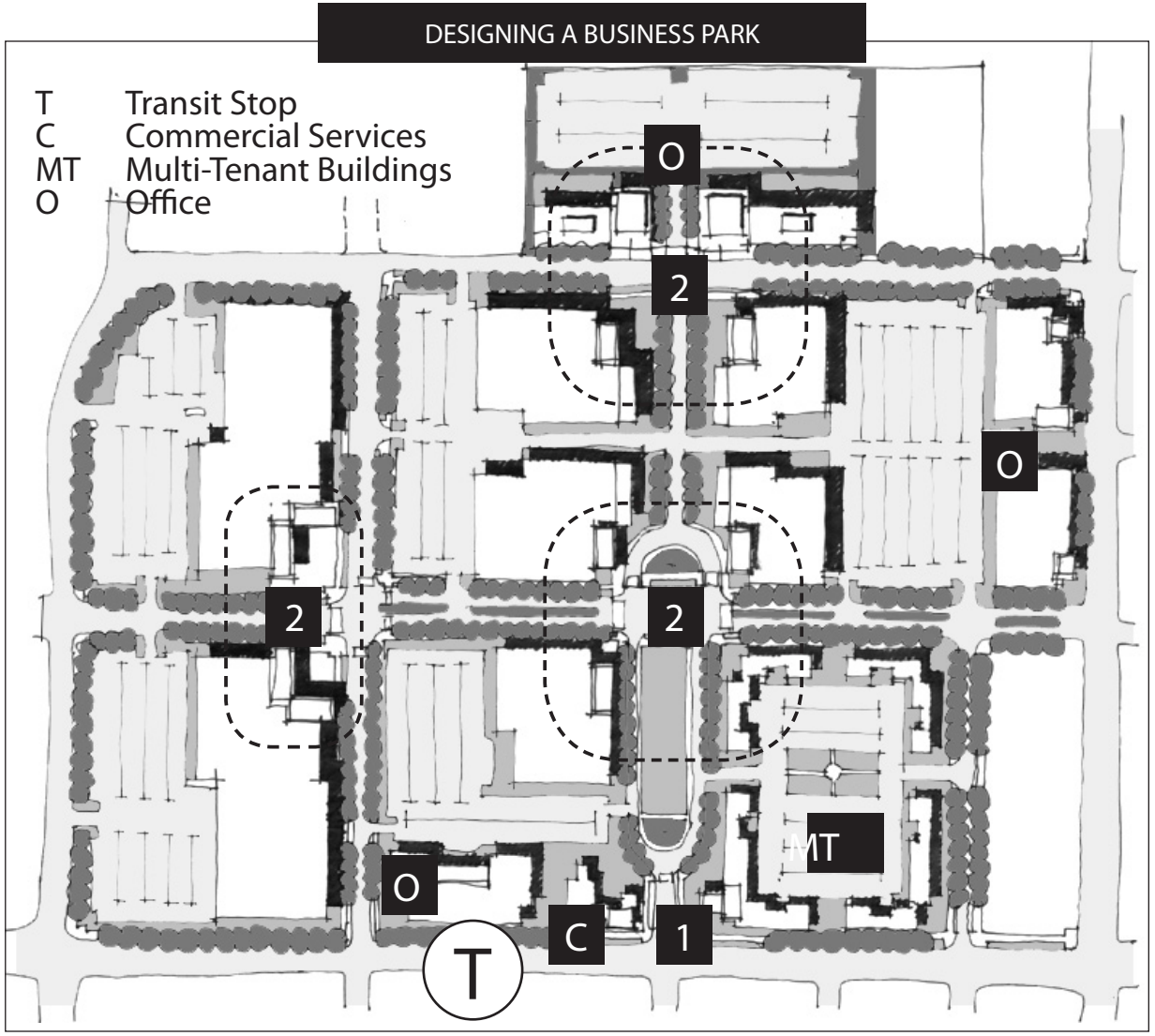



- Special hardscape, such as pavers, stained concrete, and stone, should be used to identify pathways and gathering places in projects. Use of permeable pavers, permeable concrete, and cool pavements is highly recommended for all pedestrian facilities, in parking lots, plazas, building entrances, public use and other suitable areas.
- Construct and utilize green street design practices to the greatest extent practicable. Curb cuts into landscaped drainage swales and medians are part of green street design that is encouraged.
- Streetscape concepts and themes should be a distinctive feature for business districts. This includes tree selection, lighting, furniture, signage, decorative walls, arbors, pylons, trellis, art and other design elements.
- Streetscape should reinforce urban design concepts for the business district or neighborhood. This includes creation of gateway elements, defining focal points, framing views and edges, and highlighting architectural design features.
- Paseos should be utilized to provide common outdoor spaces and allow for pedestrian access through the development, and connection to adjacent developments.
- When necessary, streetscape should screen views of parking lots and loading areas. Berms or shrubs should be used to screen parking lots.
- Street and parking lot trees with large canopies should be planted to increase the amount of shade and reduce heat in project developments.
- Trees should not block the visibility of identification signage.

BUSINESS PARK MASTER PLANS

This diagram illustrates elements of a business park site plan with light industrial, office, and "flex-tech" uses. The plan concept indicates desirable locations for:

1. Signage, landscape and buildings framing the business park entry and primary street;
2. Building lobbies oriented towards the street and intersections with parking at the side and rear;
3. Buildings clustered and aligned to create pedestrian-friendly edges and spaces; and
4. Clear comfortable connections to transit and services.



## 5.2.3 Parking and Loading Areas

The visibility of parking and loading areas should be reduced when planning and designing for office, business park, institutional, and industrial developments.

Design Guidelines

- On-site circulation concepts, and use of landscaping, should reduce the visibility of parking lots from adjacent buildings and public streets.
- The design of on-site circulation and parking lots should reflect the need for mixing and segregation of modes (i.e., trucks, autos, transit, pedestrians and bicycles).
- Parking lots should be to the rear or side of buildings to allow buildings to front onto public streets.
- Loading areas should be located to the rear or inside side yards. Loading areas should not be visible from public streets or adjacent buildings.
- For corner parcels, parking should be accessed from primary streets and service areas from secondary streets.
- Landscaping should be used to enhance and soften the screening of loading and parking areas.
- Lighting in parking and pedestrian areas should be LED lights or other acceptable high energy efficiency light, with automatic controls to dim lights after certain hours or when no one is present. Lighting shall be adequate to provide for a safe environment.
- Business park or district developments are encouraged to provide electric vehicle fast-charging stations, car and bike share locations, and other alternatives such as zip car.

## 5.2.4 Building Setbacks and Alignments

The overall planning concepts for office, business park, institutional, and industrial developments should result in a pleasing composition of buildings that support an image objective, shape and enliven public and common spaces while enhancing pedestrian connections.

Design Guidelines

- Building entrances should be designed as a prominent feature of buildings. Building entries should be placed to reinforce their presence on primary business streets and where they can enhance pedestrian linkages to other buildings, transit, parking areas and facilitate drop-off of employees and visitors.
- Building setbacks along public streets should enhance the streetscape, particularly the pedestrian realm and reflect the district design objectives.
- The design of entries should be inviting and employ architectural elements such as canopies, recessed lobbies, contrasting materials and colors, landscaping, and expressive building massing.
- Buildings located at street intersections should orient building entries toward the corner. This is particularly important at key intersections and entryways.
- Building orientation and placement should shape and activate public spaces.
- Building design should place public uses toward streets and public spaces. Private and service uses should be placed to the rear or away from public spaces. For industrial buildings, business and reception areas should face public streets.
- Industrial buildings should place auto parking adjacent to lobby and public areas and truck loading and parking adjacent to service and manufacturing areas.
- Multi-tenant single story buildings should face lobbies toward public streets.

Buildings and entry lobbies organized around a courtyard provide a social focus for employees and patrons of the development


- Loading and service bays should orient away from residential development and public streets. Loading and service bays should not dominate the public street frontage.
- Trash enclosures, utility meters, transformers, and other services should be screened and located away from adjacent neighborhoods and out of view from public streets and building entry areas.
- All landscaping and paving shall consider the needs and safety of people with disabilities.
- Orientation of new buildings within a business district should take advantage of solar and wind access.

## 5.2.5 Integrated Transit

All business district projects should facilitate access to transit for employees and visitors.

Design Guidelines

- Transit facilities should be centrally located throughout business districts. They should be visible, lit and provide shelter from the elements, and socially integrated into the planning of new and renovated projects. The design and location of transit shelters shall consider safety and be coordinated with transit providers.
- Pedestrian connections to transit facilities should be easy to navigate, safe, comfortable, and friendly.
- Shelters and lighting shall be provided. The design of shelters shall anticipate the number of transit patrons and their physical comfort. Shade, see-thru screening from wind and rain, benches or lean bars shall be design considerations for transit shelter design. Solar facilities on shelters are highly encouraged. Advertising on shelters should not exceed the signage allowed by transit providers and should not obstruct the ability for passersby to provide visual surveillance.
- Bike facilities and reasonable access to them, by employees and visitors, should be designed into every project and consistent with the Zoning Code.
- Business districts and projects should be planned, designed and managed to reflect the County's transportation demand reduction programs.
- Business districts and projects should be planned, designed and managed to support employee's health and visitors desiring to walk around the districts for pleasure and exercise. Maps/signs providing walking routes and distances encourage walking. All projects should be designed to integrate with adjacent neighborhood or County-wide bike trails, where applicable.

Desirable

A bus transit stop adjacent to the office development entry

# 5.3 Landscaping/Site Elements

On-site landscaping should reinforce overall site and architectural concepts; increase walkability, pedestrian safety, access, health and comfort; reduce heat gain, water consumption and pollution/flooding from stormwater runoff.

Design Guidelines

- Landscaping should contribute to the "sense of place." It should enhance the definition and distinctiveness of courtyards, plazas and other public spaces.
- Ancillary elements such as patio shelters, outdoor furniture, trash and recycle containers, storage sheds, bicycle enclosures shall be integrated into the overall landscape concept and be architecturally compatible with the project design.
- Landscaping should reinforce the project's site entry concepts.
- Planting in front and side yards should reinforce the business district's streetscape concept.
- Foundation planting and accent planting should be used to enhance architectural and massing concepts for buildings.
- Accent planting and color should reinforce architectural and site design entry expression.
- Screen planting should be used around parking lots and to block undesirable views. Parking lot screen planting should be approximately 30 inches tall, provide adequate security and visibility, and not obstruct security cameras and lighting.
- Grading should be done to fulfill functional and drainage requirements while reinforcing site planning and architectural design concepts. Grading can provide elevation changes that bring interest to design concepts.
- Drought tolerant landscaping should be used in accordance with the County Water Conservation and Landscape Ordinance. Irrigation plans should provide for use of recycled water and minimize the use of potable water.
- The design of landscaping should reduce the creation of heat islands caused by roadways, buildings,

rooftops and parking lot paving.

- Rainwater collection systems should be used to offset the water required for landscape irrigation. Consider the use of rainwater collection barrels to provide non-potable water for irrigation purposes. Rainwater harvesting systems should be designed to capture 50% of the total roof area (including surface runoff and/or roof runoff) for landscape irrigation use.

- Parking lots shall include shade trees, per Zoning Code standards. Tree selection, planting approach and irrigation should provide for rapid growth and sustained health of shade trees. Small ornamental trees are appropriate for accent planting but should not be used as shade trees. All trees and landscaping shall be maintained. In the event a tree is removed, it shall be replaced by a tree with similar benefits.

- Site landscaping shall include stormwater quality treatment features, such as vegetated swales, to attenuate flows and remove pollutants from runoff before it leaves the site, consistent with the Guidance Manual for On-site Stormwater Quality Control Measures. Use of the River Friendly Landscape Designs Guidelines will provide stormwater quality treatment while; conserving water, improving air quality, reducing maintenance needs and reducing greenwaste. These guidelines are referenced in the Appendix.

- An automatic irrigation system-requirements should be consistent with the Zoning Code.

- Flood protection and drainage facilities shall be designed to provide multiple public benefits, wherever possible. Facilities shall include multi-purpose improvements consisting of recreation, the environment, storm water runoff, water reclamation, infiltration, groundwater recharge, flood control, etc. Attractive joint use basins, such as parks (in addition to Quimby land dedication requirements) or parkways with trails that also convey water to water quality basins or similar facilities and provide some water quality treatment are examples of desired multiple public benefit facilities.

- Public safety is a high priority and Crime Prevention Through Environmental Design (CPTED) principles should be applied.

- Special hardscape, such as pavers, stained concrete, and stone, should be used to identify pathways and gathering places in projects. Use of permeable pavers, permeable concrete, and cool pavements is highly recommended for all pedestrian facilities, in parking lots, plazas, building entrances, public use and other suitable areas.

# Landscaping Office and Industrial Projects

## Landscape Public Street Edges

Site plans for new and retrofitted business and industrial centers should improve public street edges. This photo shows a public street that was improved as part of a parking lot addition to an existing industrial development.

## Public Art

Public art is encouraged for office and industrial projects. This could include sculpture, specialized paving, fountains and other features that add visual interest and amenity.

## Employee Outdoor Spaces

Outdoor eating and break areas should be designed into projects. Landscaping should provide a comfortable environment.

- Artwork and other amenities such as murals, sculptures, and fountains are encouraged in public areas of projects. The landscape plan should identify locations and infrastructure support (i.e., lighting, power, water, etc.).

- Mature trees, rock outcrops, creeks and other desirable natural site features shall be preserved and incorporated into the landscape plan to the greatest extent possible. Building placement and configuration shall protect any heritage and landmark trees. Where existing trees must be removed, trees shall be replaced on-site or in another location, acceptable to the Planning Director, to compensate for the loss in canopy and environmental benefits. Participation in the County's Tree Mitigation program to compensate for canopy loss is also acceptable

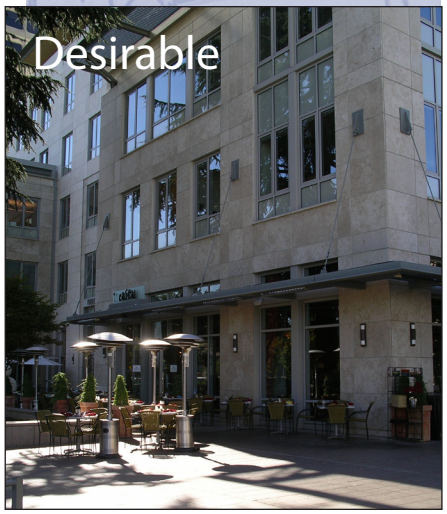
- Projects located adjacent to open space, creeks and wetlands should integrate these natural features into the project design. Views and the location of outdoor patios, plazas or eating areas should be considered in the context of the site's natural features. The project landscape theme and plantings should be coordinated and consistent with adjoining natural areas. If an existing or proposed trail exists, coordinate a connection and easement from the project to the trail. A vegetative buffer should be preserved or created to treat off-site runoff before it reaches the natural area.

- Landscaping, artwork, amenities, and paving should consider the access needs, safety, and comfort of all users.

- Use of known high allergen plantings is discouraged.

# 5.4 Architectural Design Principles and Guidelines

The industrial building in the top photo has an expressive administrative building form in front of the larger manufacturing building. The building in the bottom photo has an outdoor seating/dining area next to the lobby entry.


New office and industrial buildings should reflect both their tenants' business needs and contribution to the design objectives for the business district or neighborhood. The architectural design for industrial and office projects should strive for design excellence. Building design should be unique to the project. "Stock plan" buildings and generic designs are discouraged. The use of green and sustainable development standards and practices in planning, design, construction and renovation of new and existing buildings; along with green infrastructure should be used wherever possible.

## 5.4.1 Building Form and Massing

The massing of buildings should express a combination of the internal function and external urban design objectives for the business district or neighborhood.

Design Guidelines

- The shape and orientation of buildings should support overall district design concepts. This includes framing of gateways, views, edges and focal points.
- New buildings should respond to their architectural context by transitioning in scale, stepping the massing, reflecting the bay spacing and rhythm, and using fenestration patterns of historically or architecturally significant adjacent buildings.
- Building massing and siting should demonstrate a response to how they are viewed. This includes orientation and posture towards streets and being seen from all directions.
- The massing and shape of buildings should result in a coherent and pleasing composition of roof, wall, building base and site landscape elements.
- Long, unbroken blank walls are discouraged. Each side of buildings should have a uniform approach to design and detail.
- Roofs should be designed as integral elements of building architecture. Flat roofs with a continuous parapet around the entire building are preferable to mansard or other superficial roof forms.

- Roof-mounted equipment should be screened from view with enclosures that are consistent with the building architecture.
- Industrial buildings should be designed and configured to reflect how they function as well as business district and site design objectives. Industrial building facades should incorporate design features, including window canopies, structural plasters or columns, window mullions, and mechanical equipment screens.
- Buildings should be sited and oriented to create and activate public spaces. Building massing should provide an appropriately scaled edge for pedestrians.
- Wherever possible utilities shall be undergrounded.

## 5.4.2 Architectural Design and Features

Architectural design features and themes should provide a pleasing composition of elements and support massing concepts.

A. General Design Guidelines

- In business districts or neighborhoods where an architectural theme or style has not been established, the project proponent shall define an appropriate theme or style for the community or neighborhood.
- The architectural appropriateness of buildings should be considered. This includes the choice of materials, architectural design features, proportions and other desirable attributes appropriate to the use.
- The vertical and horizontal bay spacing should have a pleasing rhythm and composition in building elevations. Articulation of building and structural elements, including windows, entries, and bays is desirable. Design features such as canopies, trellis, and grillwork should be designed as part of the building's composition of design elements. Poorly proportioned "tacked-on" elements that do not fit the building's character are discouraged.
- Lobbies and entries should be featured in the design of all building elevations. For buildings within a business district, the scale and pedestrian use of entries shall provide a connection to the rest of the district.

New office and industrial buildings should reflect both their tenants' business needs and contribution to the design objectives for the district.

- Walking edges of buildings should provide visual and tactile interest. Utilize Crime Prevention Through Environmental Design (CPTED) practices to provide for pedestrian safety.
- Vertical elements in buildings within a business district, such as elevators, stairways, and multi-story interior spaces should be studied as opportunities for design enhancement. Stairways shall be easily accessed and in prominent view to encourage use and promote health.
- For industrial buildings, louvers, vents, mechanical equipment, loading bays, roof venting, skylights and other functional elements should not be treated as an afterthought. They should be hidden or deliberately treated as an architectural feature.
- Window patterns for buildings should result in pleasing and sophisticated elevations.

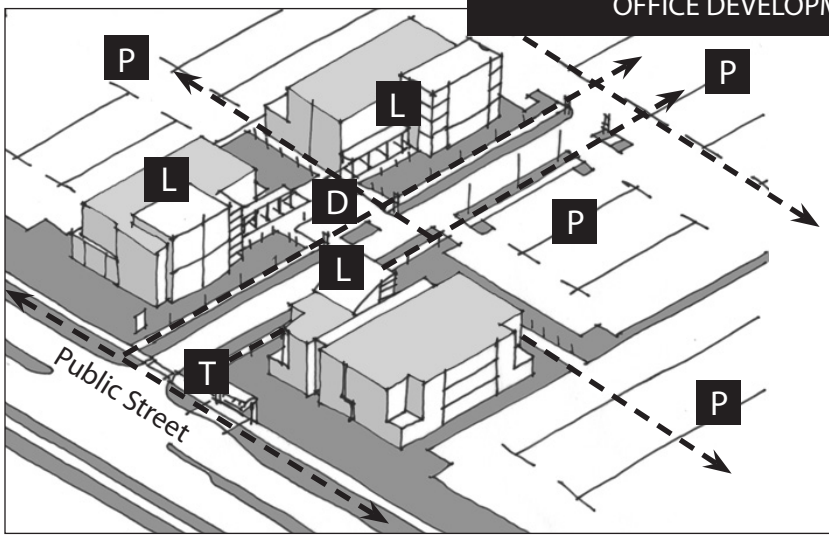
B. Guidelines for Public and Civic Uses

As appropriate to the use of the project, site design should address the general design guidelines in Section 5.2, the lighting guidelines in Section 5.4.4, and the service area guidelines in Section 5.4.6.

Site Design

- As appropriate to the use of the project, site design should address the general design guidelines in Section 5.2, the lighting guidelines in Section 5.4.4, and the service area guidelines in Section 5.4.6.
- Building orientation should facilitate the intended function or use of the project and address the primary street.
- Business district or project development should be designed with landscape and architectural design features that complement the dominant existing or planned character of the surrounding context. This can be accomplished through the use of similar forms, materials, and colors.
- Projects should reinforce or enhance the streetscape image of the neighborhood.
- Business district developments should be designed to support a pedestrian-friendly environment, with a comprehensive pedestrian network (of walkways, elevators, ramps, stairways, and etc.) that support neighborhood access and connect buildings and uses to adjacent open space, parking, and transit.
- Buildings should be oriented around open space or common areas, such as courtyards, plazas, retail uses,

## OFFICE DEVELOPMENTS




### Office Building Development

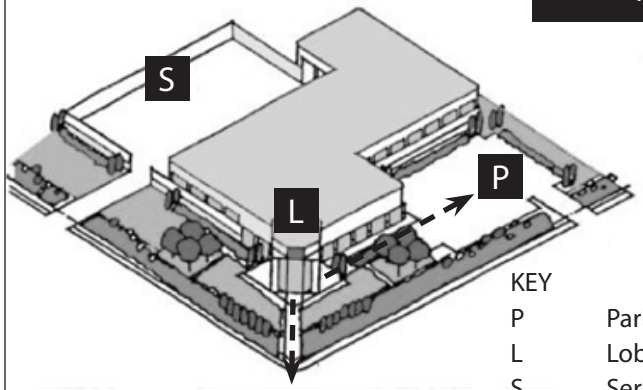
In contrast to a plan that separates buildings by surface parking lots, this concept diagram illustrates a cluster of office buildings that results in a new street and address.

KEY

| | |
|---|---|
| D | Shared Entry Drive and Drop-off |
| T | Transit Stop |
| L | Building Lobby |
| P | Parking at Sides and Rear of Building |

(Street trees not shown)

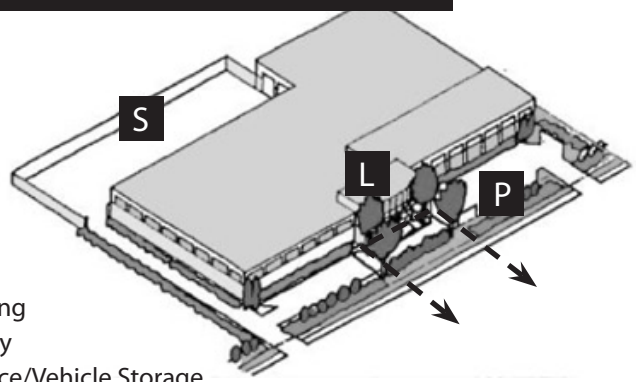
## INDUSTRIAL SITE ORIENTATION



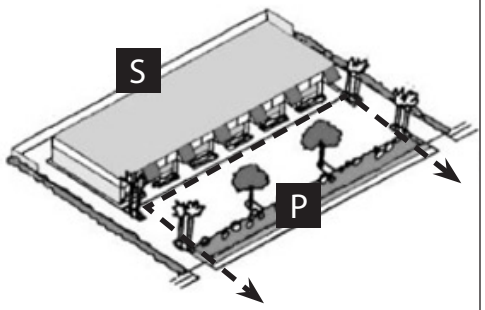

Single Tenant Building
Corner Site

KEY

| | |
|---|---|
| P | Parking |
| L | Lobby |
| S | Service/Vehicle Storage |

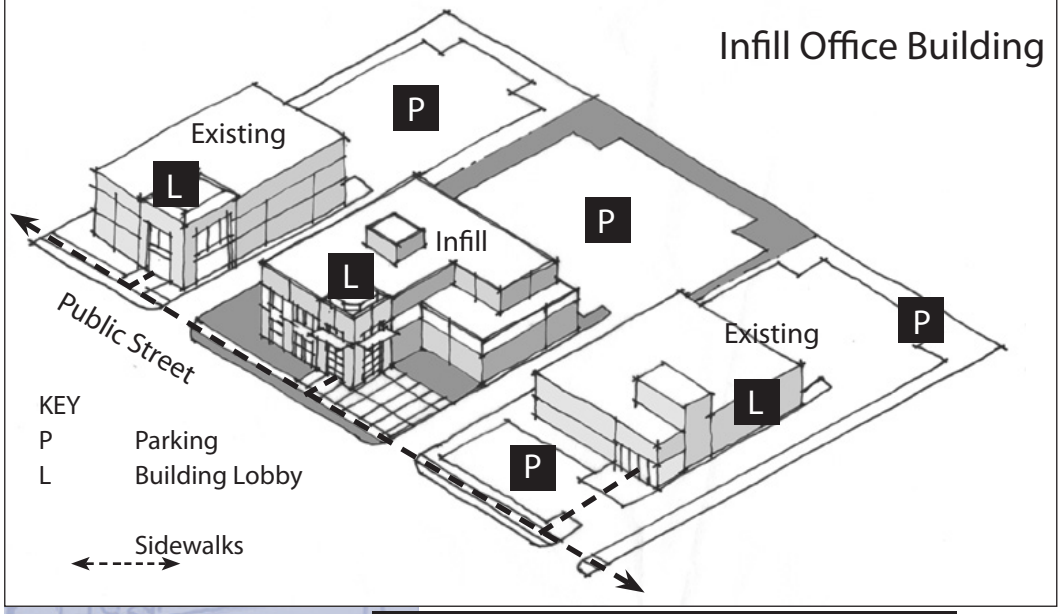



Single Tenant Building
Mid-Block Site




Multi-Tenant Building
Mid-Block Site

NEW OFFICES FITTING IN



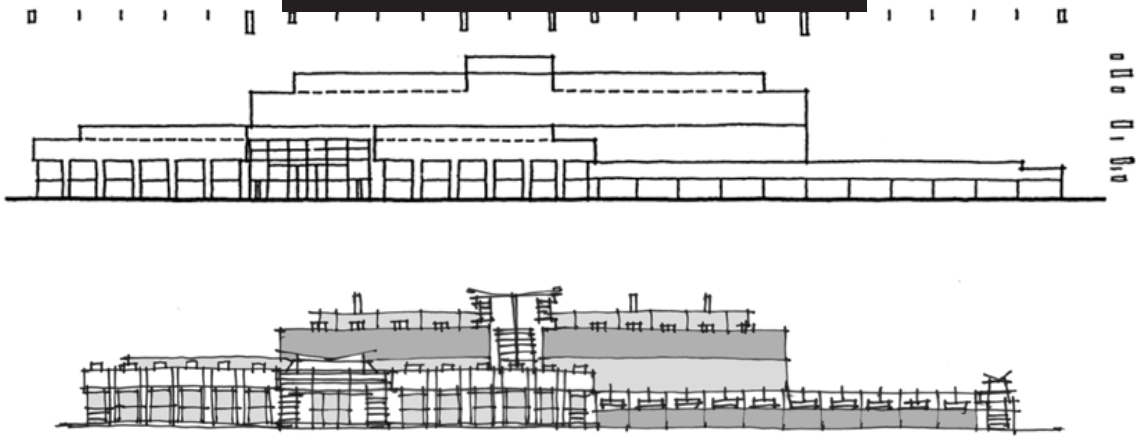

INFILL OFFICE BUILDINGS

This diagram shows an infill office building in a commercial district.

It features:

- Aligning setbacks with adjacent buildings;
- Stepping the building height to match the height of adjacent buildings;
- Orienting the lobby towards the public street; and
- Locating parking at the rear of the site.

COMPOSITION OF MASSING



MASSING CONCEPTS

These elevation diagrams illustrate how to add interest to industrial buildings by purposely stressing the "meter" or rhythms created by structural bays and a functional program. The lower elevation diagram illustrates how office uses, entry lobby, screen wall and manufacturing portions of a large industrial project can be composed.

cafeterias, and other shared use facilities or amenities.

- Site entries for vehicular and pedestrian access shall be clearly demarcated, easily accessible, and minimize pedestrian, and vehicular conflicts.
- Where feasible, parking lots should be divided into a series of connected smaller lots. Landscaped bulb-outs or planting wells should be incorporated to provide shade and reduce the urban heat island effect in paved areas.
- Site features, such as bicycle racks, waste and recycling bins, planters, and benches should be integrated into the site development.
- Service or storage areas that can be viewed from above are encouraged to incorporate roof structures or other design approaches to screen the contents of the enclosure from view.
- Service and loading areas should be avoided from predominantly residential streets, when possible.

Architecture

Building design should address the general design guidelines for building form and massing in Section 5.4.1; the guidelines for architectural design and features in this section; guidelines for materials and colors in Section 5.4.3; and the following guidelines.

- Buildings within a business district should be compatible with the design elements and style of the business district.
- Architectural elements, including massing, roof forms, entries, and architectural details should complement the architectural style and proportion of the building.
- Building forms should exhibit a discernable base, middle, and roof line, using colors and materials that complement these parts. Darker colors and/or heavier materials are encouraged to be provided at the base and supporting lighter colors and materials used above it.
- Building entries should be a major focal point of buildings, designed as an integral part of the building form. Building entries should be easily identified and emphasized through building massing, architectural details, and materials.

- Horizontal and vertical articulations, changes in wall planes, and different materials and textures should be used to reduce the massing and give visual interest to buildings. These articulations should relate to the spacing and configuration of structural bays, the development context, program functions, and the properties of materials used on the building facade.
- Architectural details, such as expansion joints, reveals, cornices, eaves, and window treatment should be used to provide an attractive elevation to all facades, visible from public streets.
- Materials should wrap building elements in their entirety. Changes in materials along a building elevation should occur at inside corners.
- Accent colors that complement the building's color palette should be used to distinguish special areas or entries.

Landscaping

Landscape design should address the general design guidelines for landscaping/site elements in Section 5.3 and the following guidelines. Refer also to the County Zoning Code for landscape requirements, based on the project's applicable zoning.

- Incorporate landscaping that is compatible and integrates with and supports the public realm landscape theme and streetscape identity of the neighborhood and surrounding uses.
- Landscaping along the street should be appropriate to the scale, orientation, and use of the site.
- Perimeter landscaping within a larger project should reflect the character of the landscape themes in the neighborhood.
- Use of drought tolerant landscaping and water conservation techniques are encouraged, as guided by the County Zoning Code.

C. Guidelines for Places of Worship

Places of worship or religious institutions may be located in residential or nonresidential zoning districts. Given the level of activity of many religious facilities and the needs of faith groups at various stages of development, the context and size of religious facilities varies greatly in the County. To respect these needs, places of worship are permitted or conditionally permitted (by the Zoning Administrator) in most zoning districts in the County, so long as the proposed project can be shown to fit into its surrounding context, whether in urban, suburban, or rural residential neighborhood areas; commercial or mixed-use districts; or as building renovation or reuse opportunities, occupying a commercial or site. There is an increasing trend towards large or more regional community facilities and multi-use facilities (religious centers) that may include accessory uses, such as schools, offices, social halls, training facilities, day care centers, and etc. These proposals are often characterized by occasional gathering for special events or practices and site activities that can result in or cause issues related to traffic, parking, and project compatibility.

Places of worship should address the design guidelines for public and civic uses above, as well as, the following design guidelines. Guidelines for business districts are applicable to multi-use projects.

Site Design

- The scale of development should be aligned with the character and development intensity of the surrounding neighborhood. Major or regional facilities are generally discouraged in neighborhood areas that are more locally focused and low-scale in character, such as within residential, agricultural, or agricultural residential districts or neighborhoods. The scale of development and distance to surrounding and existing or planned development will be considered, to ensure land uses and activities are compatible with the future development patterns in the neighborhood.

- The uses or functions of a religious center should be organized as a group of buildings connected by walkways or combined into one facility. Major activity spaces within a center should be designed to allow for future expansion.

- Buildings should be organized so that the main entrance to the facility or worship hall is the focal point of the facility and visible from the street and parking areas. Buildings should also be organized to highlight other key focal points on the site, such as significant vistas or natural features.

- Buildings should be oriented to activate public outdoor spaces within the project and take advantage of natural features of the site whenever possible, including significant resources or views. Common and small

outdoor spaces are encouraged, to provide a variety of places for people to gather, congregate, and enjoy the outdoors.

- Large regional religious centers are encouraged to be located adjacent to transit and incorporate guest drop-off and pick-up zones. Clear pedestrian links should be provided to transit stops and guest drop-off and pick-up areas.
- Event and activities and amplified sound shall respect surrounding uses, including hours of operation and permit requirements, as regulated by the noise ordinance in the County Zoning Code.
- Where possible, places of worship are encouraged to share parking with other adjacent facilities with occupancy peaks at different times of day, as regulated by the County Zoning Code.
- Where applicable, terraced parking areas, organized into smaller, connected parking courts that are compatible with the existing topography of the site, are encouraged.

Architecture

- The architectural style and massing of projects should be compatible with the building form and scale of the surrounding area.
- Upper floors should be setback from lower floors, to reduce the mass of religious centers, particularly adjacent to lower scaled neighborhood development.
- Unique architectural features, such as towers, spires, stained glass, public art, or other unique design elements should be used to enhance the identity of the facility.
- Vertical elements and unique architectural features, such as towers, spires, stained glass, public art, or other identifying monuments are encouraged to be integrated into the overall architectural composition and expression of the primary worship facility.
- Shapes, forms, and symbols used should be acceptable to all users and to the surrounding neighborhood.
- The main building entry should be grand or grander, prominent, and inviting, employing high ceilings and strong design elements, such as oversized doors, arches, or large windows.
- Where possible and desirable, multi-paned glass to allow natural light into worship buildings is encouraged.

- Building façade renovations, including storefront developments, should be articulated through use and design of windows, entries, wall planes, façade articulation, and roofs.
- Window shapes and locations should be integrated into the architectural design of buildings.
- Use of natural materials, such as wood, stone, or metal are encouraged. Reflective glass should be avoided, particularly adjacent to residential or at the pedestrian level

Landscaping

- Site continuity should be maintained by applying a consistent landscape design theme and coordinating lighting, street furniture, landscaped gateways, and signage.
- Landscaping and screening should be used to control the effects of facility operations, such as light, noise, and parking. Refer to the County Zoning Code landscape buffer and screening requirements, particularly adjacent to Residential and Agricultural-Residential zoning districts.
- Landscaping used in outdoor spaces and activity areas, such as gardens, gathering spaces, playgrounds, and picnic facilities should highlight or serve as a transition to building facilities.
- Use of landscaping to provide shade, color, and texture is highly encouraged.
- Special paving patterns and textures are encouraged to emphasize important areas or features.

D. Guidelines for Self Storage Facilities

- Self storage facilities are encouraged to be constructed to appear as commercial or industrial buildings that house self-storage units within, when feasible (see examples to the right).
- Buildings facing the public right-of-way, including manager units, lobbies, and/or front office functions should be articulated, to reflect the character of the neighborhood.
- Large unarticulated, building elevations or walls, visible from the street or public right-of-way, should be avoided. Rather, the facades of self storage facilities should be articulated through the use of colors that are compatible with the surrounding

Self storage facility desiged to appea as an industrial building

Climate controlled indoor self storage facilities

neighborhood; material changes; changes in building heights; and building design details, including horizontal and vertical building reliefs and articulation of building entries, windows, and roofs.

- Building elevations or walls or fences adjacent to a street or public right-of-way, as applicable, should be articulated and/or screened with landscaping. Use of public art is also encouraged along outer security walls or fences, as applicable.

- The street frontage of self storage facilities shall be landscaped in accordance with the landscape requirements of the property's zoning district.

E. Guidelines for Cargo Containers

Cargo containers are frequently used for temporary or permanent commercial, industrial , and residential storage purposes, as temporary offices for the staging of construction activities, and as temporary building facilities, to subsequently be replaced by permanent structures. In addition, cargo containers may be used as an inexpensive and innovative building structure alternative for a permanent residential, commercial, institutional, or industrial development, calling for additional architectural and site design guidelines.

<u>Cargo Containers Used for Storage and Other Temporary Uses</u>

- The size of the cargo container should be the minimum size needed to serve the planned use, subject to the applicable use regulations for the intended function of the cargo containers, (e.g., for storage or temporary uses), as regulated in the County Zoning Code.

- In Agricultural, Agricultural-Residential, and Recreational zoning districts, cargo containers used for storage on a permanent basis, or other use for an extended period of time and as required by the conditional use permit, should be screened from view of the public right-of-way by fast growing landscaping, such as evergreens, fencing, or other acceptable means of screening, as regulated by the County Zoning Code.

- In residential, commercial, employment, and industrial zoning districts, cargo containers should be screened from public view or if used as the primary building structure, should be integrated with the site development in accordance with the design guidelines for "Cargo Containers Used as Permanent Building Structures," that follow.

- Cargo containers should be painted a solid neutral color or color(s) that match the surrounding setting and/or complement adjacent structures. Artistic designs are also permitted and encouraged, subject to review and approval by the County.

Cargo Containers Used as Permanent or Semi-Permanent Building Structures

Cargo containers, such as pre-manufactured units for shipping, are designed and built to provide structural support. These containers are typically manufactured in a limited number of standardized dimensions and can be used in a number of ways to create modular buildings and other enclosures for residential, commercial, and industrial uses, as shown in the residential and commercial examples that follow.

- Design cargo containers to be compatible in appearance to adjacent development. Employ siding, roofing, colors, and other materials that complement or enhance the character or sense of place of the surrounding neighborhood.
- Building massing, scaled to the pedestrian and a variety of materials, textures, and colors should be used to articulate building elevations, as guided by the general architectural design guidelines in this section. Artistic and innovative designs are encouraged, so long as the development is consistent with the general character and spirit or sense of place of the neighborhood setting.
- Locate primary entrances of the cargo container building along the street and/or along internal paths, or screened from other permanent building structures, if designed within a larger business district or campus setting.
- Cargo container used for residential purposes shall also follow the use standards for manufactured housing in the County Zoning Code.
- Cargo containers used for residential accessory units should be coordinated in design with the main building residence.

Cargo container residential homes in a suburban and rural setting

Cargo container commercial retail establishment exterior

Cargo container painted, to appear as a mural within the residential neighborhood

## 5.4.3 Materials and Colors

Material and color selection of buildings should reinforce the overall massing and architectural concepts of the business district or neighborhood, while portraying a sense of high quality and permanence.

Design Guidelines

- Architectural materials should convey an image of high quality and durability. Preferable facade materials include plaster, articulated pre-cast concrete panels, certain metals, such as steel and aluminum, natural stone, and masonry (e.g., brick, tile, and glass block). Curtain wall systems with large continuous surfaces are discouraged. Concrete block, if used, should be split-faced. Precision blocks should be used sparingly only as color or texture accents. Combining materials should support the overall architectural concept.
- Use sustainable building materials that are high quality, durable, provide energy efficiency benefits, require low maintenance, and complement the design of the building. Use of quality recycled products is encouraged. Products shall be of a quality that is durable and not readily show signs of weathering and aging.
- Use of "Permanent" and/or cool roof products and materials with reflective surfaces are desirable because of their low maintenance, energy conservation and insulation values.
- Material selection for buildings should be appropriate for building type, location and context. Materials that have an inherently residential or garish quality are discouraged.
- Discouraged roofing materials: composite shingles, painted or glazed tiles.
- Discouraged wall materials: metal siding, plywood, hardboard or vinyl materials.
- Similar quality materials and colors should be used on all sides of office, institutional, and industrial buildings.
- Window glass should be lightly tinted or clear. Reflective and very deeply tinted glass is discouraged. Windows should be oriented or shaded to minimize heat transfer from summer sun. Provide natural lighting features where possible.
- Reflective materials, such as mirrored glass and unpainted steel siding or roofs, are discouraged.
- Use of solar and wind turbines is encouraged, should be properly placed to obtain premium results and designed to support the overall architectural context.

## TILT-UP CONSTRUCTION

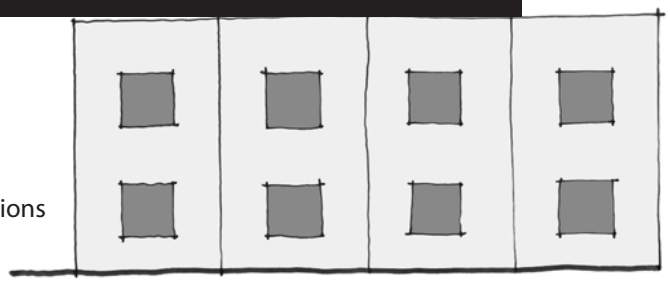
These illustrations show methods for improving the design of tilt-up concrete buildings.

Common use: Office and Industrial Buildings

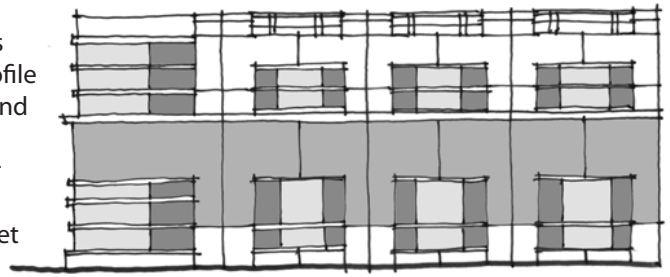
- Cost effective
- Fast construction
- Allows for design variations

### TILT-UP

Undesirable
- Lacks color or texture variation
- Flat profile
- Poor panel and window proportions



Desirable
- Added color and texture to panels
- Architectural profile
- Expresses bays and window system
- Expresses corner window
- "Notched" parapet



## CONCRETE MASONRY CONSTRUCTION

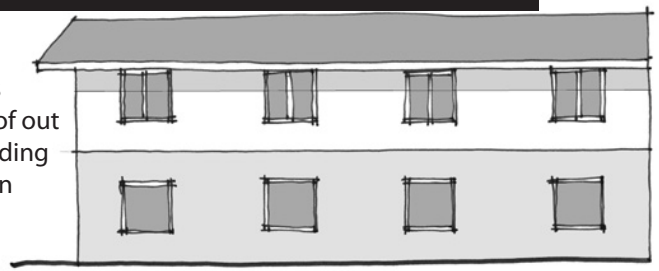
These illustrations show methods for improving the design of concrete block buildings.

Common use: Office and Industrial Buildings

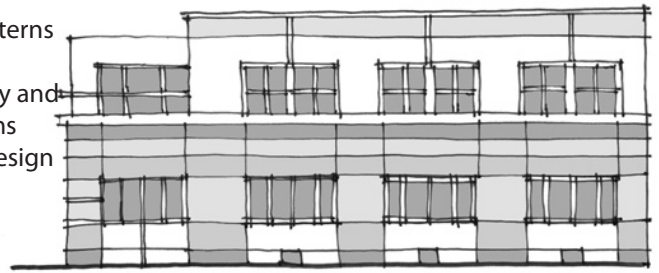
- Durable material
- Variety of textures and colors
- Easy to mix patterns and shapes

### BLOCK AND MASONRY

Undesirable
- Poor proportions
- Fake mansard roof out of scale with building
- Flat and utilitarian walls



Desirable
- Rich patterns and colors
- Materials and patterns provide good proportions in bay and horizontal rhythms
- Corner patio or design feature



## METAL SIDING CONSTRUCTION

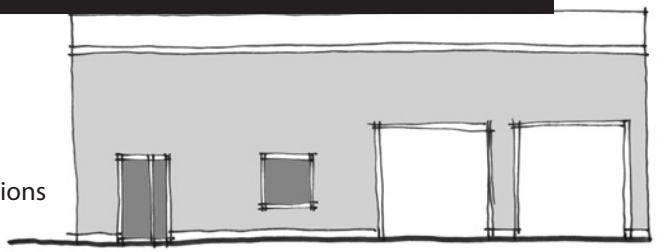
This illustration shows methods for improving the design of metal buildings.

Common use: Industrial and Warehouse Buildings

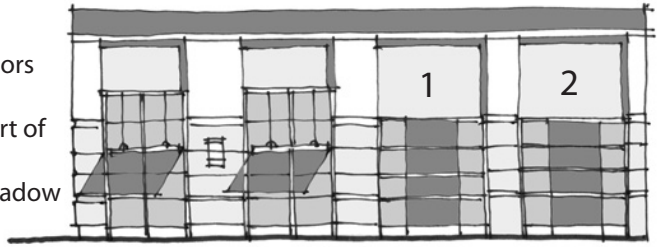
- Cost effective
- Fast construction
- Easy to "accessorize"

## METAL SIDING

Undesirable
- Lacks variation
- Looks utilitarian
- Flat profile
- Poor panel and window proportions



Desirable
- Changes color and siding profile
- Adds storefront windows and doors system
- Garage doors part of design concept
- Canopies add shadow and define entry




## CURTAIN WALL CONSTRUCTION

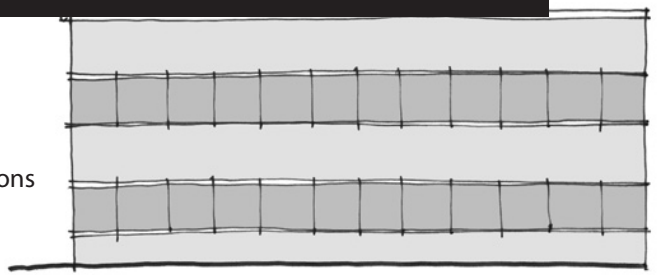
This illustration shows methods for improving the design of curtain wall buildings.

Common use: Office Buildings

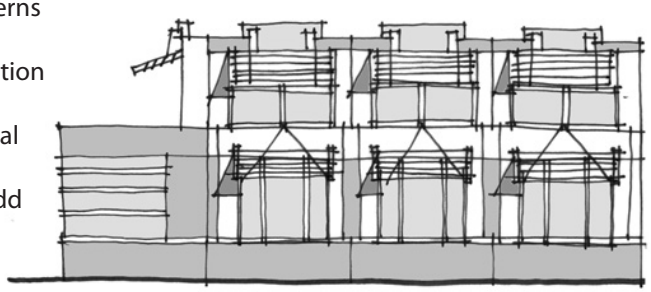
- Durable quality system
- Mix and match with other panel systems and materials
- Dramatic day to night lighting mood swing

## CURTAIN WALLS

Undesirable
- Lacks color or texture variation
- Flat profile
- Poor panel and window proportions



Desirable
- Variety in window and panel system patterns
- Bay rhythms expressed in elevation patterns
- Enhances sculptural quality of building
- Sun screens can add shadow and visual interest



- The color and textures of materials should enhance the expression of architectural features. The pattern of wall materials should acknowledge the scale and proportions of building elevations.
- Employ Energy Star appliances and energy efficient lighting in construction, to the extent feasible, consistent with the adopted Green Building Policies and requirements. Material selection should promote energy efficient and environmentally sustainable design.
- Efforts shall be made to advance energy reductions and conservation efforts to achieve California's zero-net energy 2030 goals for commercial buildings.

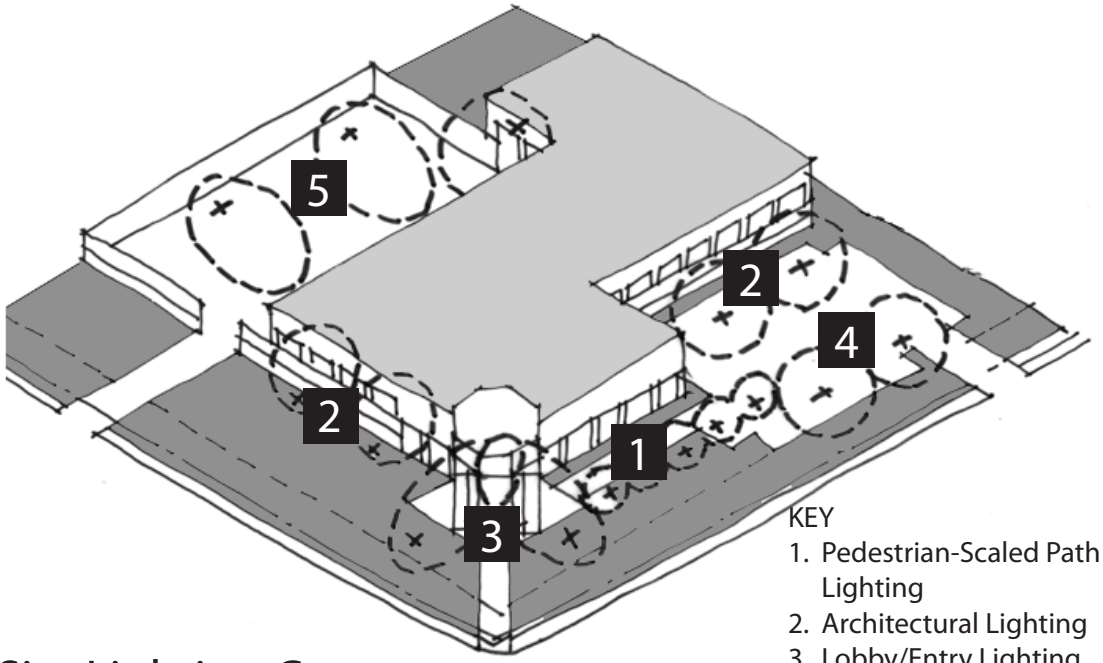
### 5.4.4 Lighting

Every project should have an overall lighting plan for pedestrian pathways, architectural lighting, lobbies and entryways, parking lots, and service areas.

Design Guidelines

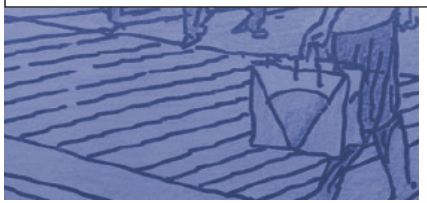
- Lighting should enhance the architectural and site design concepts while being energy efficient. Architectural lighting is encouraged.
- Spillover lighting that is visible from outside the site should be avoided by orienting fixtures downward or shielding light.
- Energy efficient lighting shall be at levels that provide public safety and meet or exceed Zoning Code standards.
- Low, pedestrian-scaled fixtures are encouraged to help identify and light pedestrian routes.
- Lighting in service areas should be the minimum required for operation, and should be designed to minimize the visibility to those areas, while providing for a safe environment. Motion controlled lighting is recommended.
- Lighting should be LED lights or other acceptable high energy efficiency light, with automatic controls to dim lights after certain hours or when no one is present. Lighting shall be adequate to provide for a safe environment.

## LIGHTING CONCEPTS




Site Lighting Concepts

KEY
1. Pedestrian-Scaled Path Lighting
2. Architectural Lighting
3. Lobby/Entry Lighting
4. Parking Lot Lighting
5. Outdoor Yard Lighting

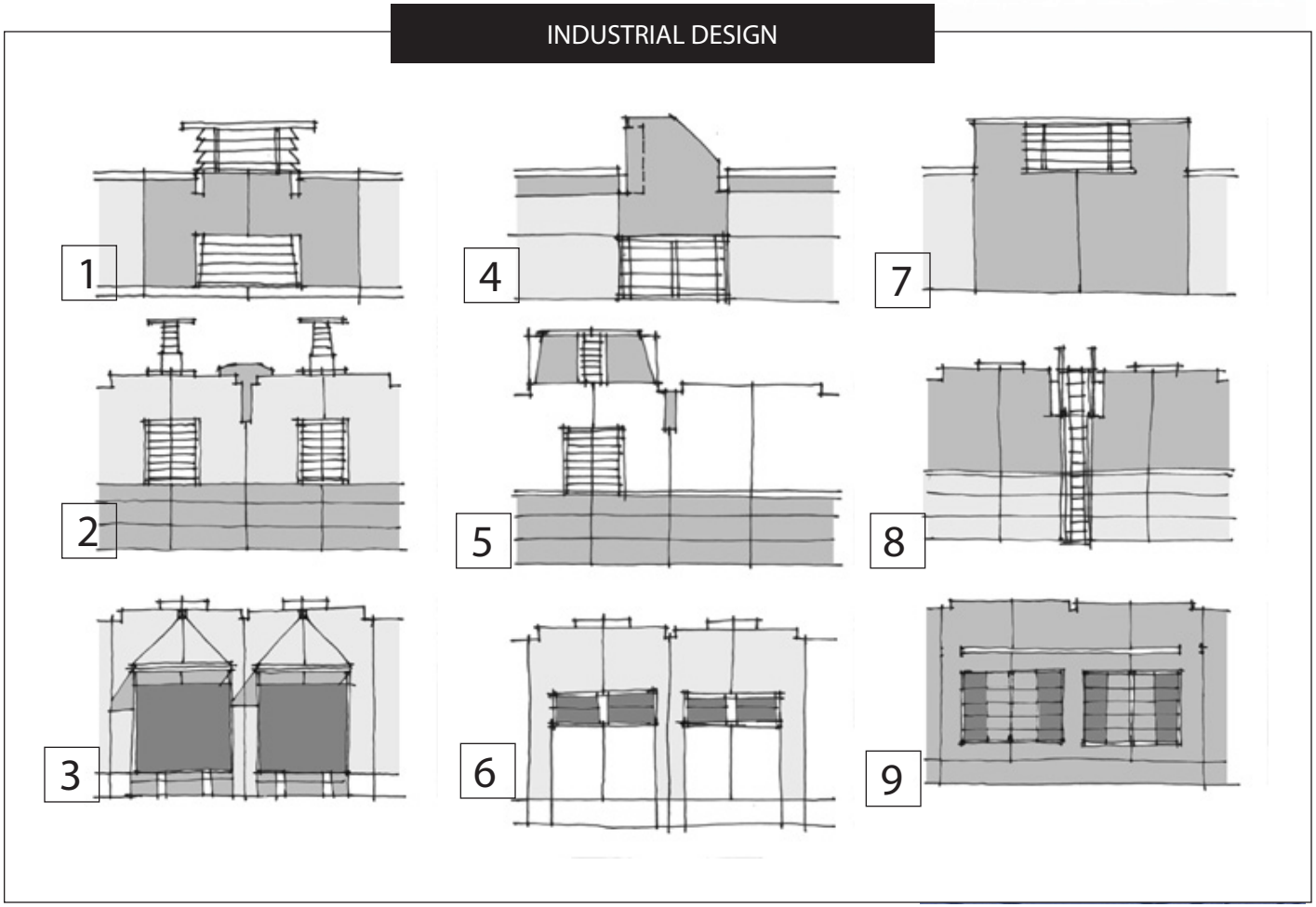


Example of pedestrian pathway lighting

INDUSTRIAL DESIGN FEATURES

These diagrams illustrate how to add interest by careful placement and expression of industrial building functions in the elevation.

1. Roof Vents
2. Louvers
3. Loading Dock Bays
4. Skylights
5. Mechanical Penthouses
6. Clerestory Windows
7. Mechanical Screen
8. Ladders
9. Windows



- Provide energy efficient lighting in all common areas and buildings, including pedestrian and vehicular routes. The emphasis should be on personal safety, with lighting landscape or building surfaces secondary.

## 5.4.5 Screen Walls and Security Fences

Service and loading dock areas should not be placed in visually prominent locations. They should be screened from view. Screen walls are generally regarded as mitigation for poor site planning. However, when walls or fences are required, they should be designed as an extension of the architectural and landscape design concepts.

The top photograph shows a well-designed wall with landscaping. The lower photo shows an undesirable security fence with razor wire and no landscaping.



Design Guidelines

- Screen walls should be architecturally treated as an extension of the building. They should be architectural concrete block, and a cement plaster finish or otherwise reflect the design and materials of the building. Vertical and horizontal reveals, accents and other details should be included.
- Screen walls along pedestrian routes or sidewalks should be set back to allow for landscaping consistent with Zoning Code setback standards.
- Chain link fencing is discouraged. When slats are necessary, they should be of vinyl materials.
- When razor wire or barbed wire is necessary, it should not be visible from public streets or adjacent properties. A Minor Use Permit is required.

## 5.4.6 Service Areas

Service facilities should be concealed from public view.

Design Guidelines

- Trash bins and compactors, utility meters, transformers, and other service elements should be enclosed or otherwise completely concealed from view. Service elements should be designed as an integral element of the business district's or project's architecture. Services and equipment should be enclosed or buried, or otherwise concealed from view.
- Provide trash and recycling education information near enclosures. Enclosures shall be in a safe and secure location and shall be kept clean and odor-free.
- Trash enclosure areas shall be designed to the County's latest storm water quality source control design standards, and shall provide trash and recycling education information.
- Equipment located on a project site shall be located so as to not interrupt project visual image or pedestrian path systems. Elements shall be landscaped or treated externally with color and material to not deter from the project image.
- Roof-mounted mechanical equipment should be concealed by enclosures that are consistent in design with the building roof.
- Refer to the commercial Section 4.4.6 for guidelines on wireless communication facilities.

These photographs show signage design for an office project. The photos show a signage system with a distinctive graphic identity that has been integrated into the landscape concept for the site.



# 5.5 Project Signage

Signage should be designed to comprehensively enhance the identity of the business district or neighborhood.

## 5.5.1 District Signage

Business Districts should have overall signage and graphic identity concepts that guide district, site and building signage design that identify the uses and provide wayfinding, both day and night, and graphic identity objectives.

Design Guidelines

- Business district projects should have one detached monument sign located at the principal entry. Larger corner sites may be allowed a second sign, to be located on the corner.
- Monument signs should be incorporated into the landscaping concept, consistent with the architecture of the buildings that they serve.
- Wayfinding signage is encouraged. Signage that directs people to building addresses, parking and visitor areas should be designed to reflect the graphic identity of monument and building signage. All signage shall comply with ADA requirements.
- Refer to the commercial Sections 4.5.4 and 4.5.5 for guidelines addressing water tanks and towers and billboard signs and digital billboards.

## 5.5.2 Multi-Tenant Buildings

Multi-tenant buildings within business districts should have graphic standards and schedule for monument, building, tenant and wayfinding signage. Business districts should have an overall signage design concept that sets forth standards for tenant signage.

Design Guidelines

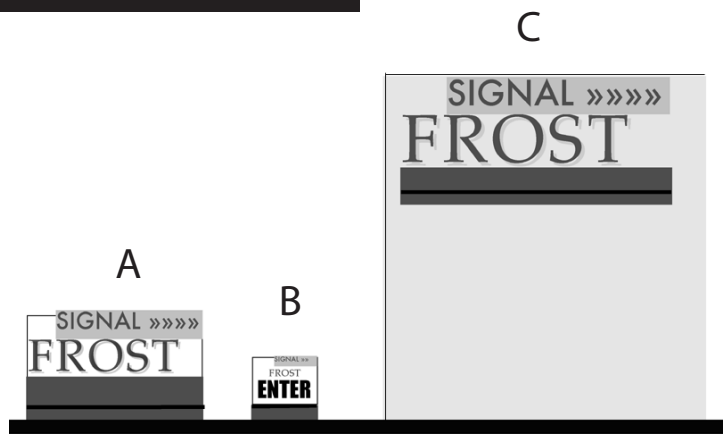
- Multi-tenant buildings should have an overall signage design concept supported by tenant standards.
- Signage should be systematically located and styled to support the architectural design.
- Signage should be designed and located so as to not detract from the building design image.
- All building signage shall comply with ADA requirements.

## 5.5.3 Single-Tenant Buildings

**BUSINESS PARK SIGNAGE**

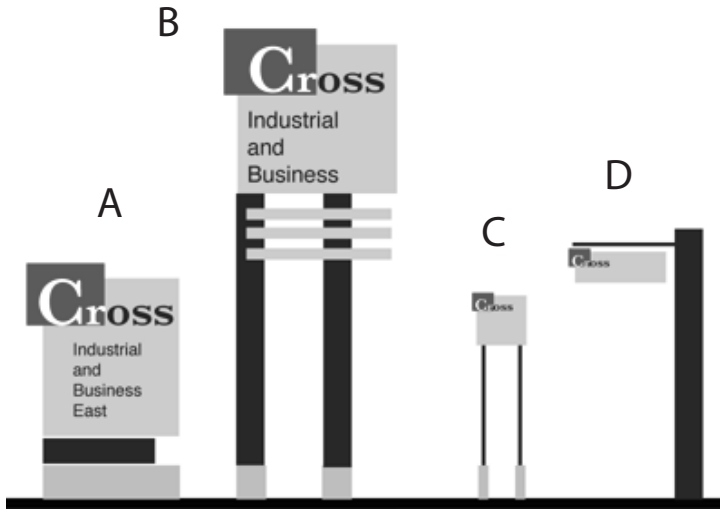
COMMERCIAL/INDUSTRIAL ZONE

A. Monument Sign
B. Entry Sign
C. Building Sign




INDUSTRIAL/OFFICE PARK ZONE

A. Non-directory Sign
B. Directory Sign
C. Wayfinding Sign
D. Tenant Sign

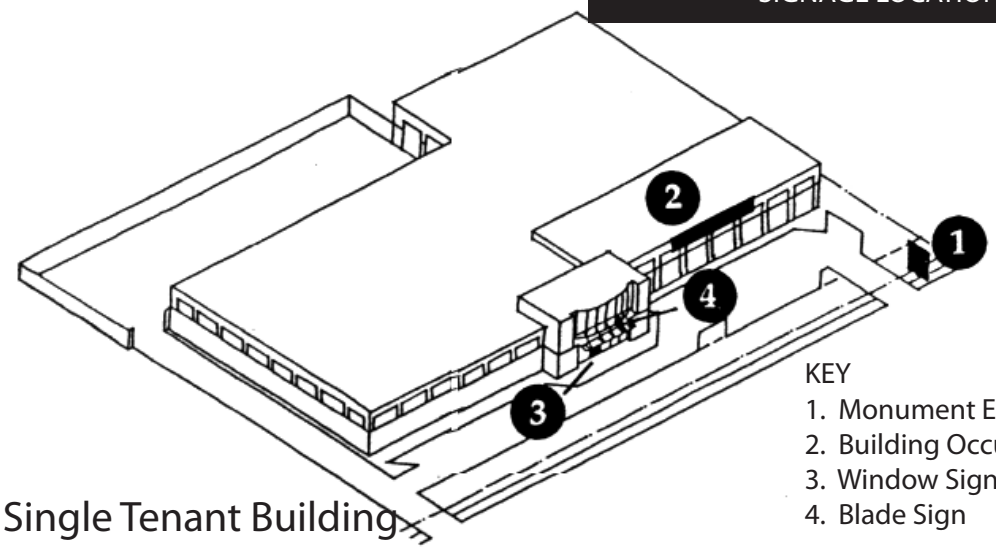


A consistent signage design concept should be used be used for single tenant buildings.

Design Guidelines

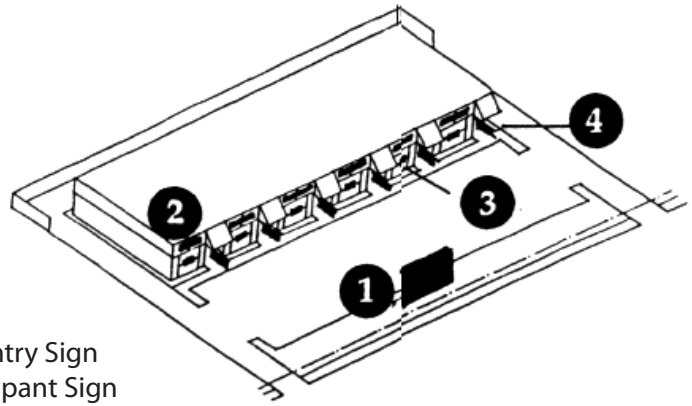
- Building signs should appear on one elevation or on two elevations if located on a corner.
- Affixed signage should be placed only on vertical surfaces below the parapet or eaves. Roof signs are discouraged.
- Corporate parapet signage should include only the company name or logo and address. Naming services or products on building signage is discouraged.
- All building signage shall comply with ADA requirements.

SIGNAGE LOCATION




Single Tenant Building

KEY
1. Monument Entry Sign
2. Building Occupant Sign
3. Window Sign
4. Blade Sign




Multi-Tenant Building

### 5.5.3 Temporary Signage

Temporary signage permitted by the County for office, business park, institutional, and industrial developments should be designed to a high graphic and construction quality.

## 5.6 Operational Elements

The operational elements design guidelines mirror those of the commercial section. Please refer back to Section 4.6 for this information and details.

# 6.0 Village Centers/Mixed-Use Design Guidelines

*By planning and developing residential and commercial land uses together, projects can be better connected to the community and provide pedestrian-friendly central places.*

The purpose of this Chapter is to provide design principles and guidelines for mixed-use village centers and projects that provide an integrated mix of uses including residential, office, retail, and civic activities. These centers and projects provide a social, healthy, sustainable and economic focus for Sacramento County's communities and commercial corridors.

Mixed use may be created as part of New Communities, or may evolve within larger infill sites and redeveloped older commercial sites. Pedestrian and transit-oriented designs are integral within the buildings and include horizontal or vertical mixed use. New mixed use projects are a major element in creating and fostering a sense of place within their segment and the related community.

There are three types of Mixed Use Centers, as outlined in the Zoning Code. These types include: 1) Neighborhood Mixed Use Centers (NMC), Community-Regional Mixed Use Centers (CMC), and Corridor Mixed Use Centers (CMZ).

## 6.1 Understanding Context: Village Center Districts

Village center projects provide a social and economic focus for surrounding communities. Each project should contribute to the streetscape, pedestrian and auto access objectives, architectural and signage design objectives for the site and surrounding area. They should establish and reinforce a sense of place for their project area. Project sponsors need to consider the following questions.

- Site connections: How can driveway, sidewalk and other perimeter areas provide connections to increase the connectivity and accessibility to the site from adjacent neighborhoods and development? How can the district attract and benefit from public transportation access?
- Building alignments and orientation: How can building alignments, orientation and transparency contribute to pedestrian attraction and usages? What should be the building and landscape setbacks?

This aerial photo shows a typical commercial strip area with intermingled apartment projects.

Some common features include:

USES

1. Mix of pre- and post-war commercial uses
2. Scattered apartment projects in between and adjacent to commercial centers

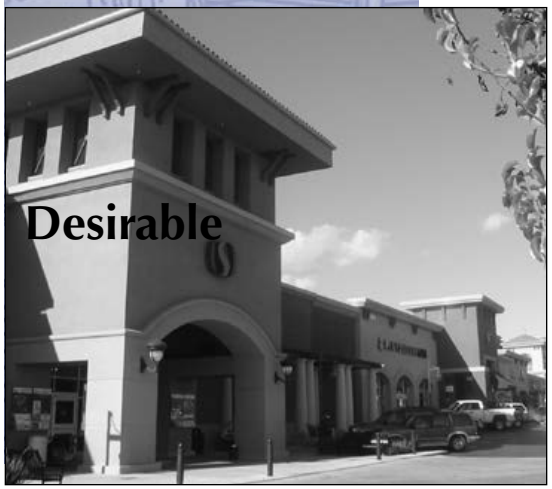
ISSUES

1. Walled separation between uses and parcels
2. Auto-oriented planning and pedestrian isolation
3. Lack of social focus for surrounding community

DESIGN OPPORTUNITIES

1. Integrating residential and commercial uses with renovated or new development as an economic development catalyst
2. Creating better pedestrian connection between neighborhoods and commercial corridors
3. Creating transit and pedestrian-friendly options to isolated apartments

*These photos show an example of an integrated and friendly mixed-use suburban district with a grocery store-anchored shopping center and apartments. Storefronts connect the residential and commercial projects that include a small park, outdoor cafes, and public art.*


- Building alignments and orientation: How can building alignments orientation and transparency contribute to pedestrian attraction and usages? What should be the building and landscape setbacks along public streets that will support the community objectives to provide a pedestrian usable focus? How are existing and proposed building storefronts, communal open space, and entries oriented?
- Streetscape and landscape design: What type trees exist along the adjoining public streets? Is there a landscape plan for the neighborhood or district? How can the landscape plan help to knit the project together and link it to the surrounding community? What landscaping needs replacement? How can the landscape plan be enhanced to attract pedestrians and promote walking?
- Roadway and parking lot design: How can parking lots and driveways be designed to increase pedestrian comfort, safety and connectivity? How can trees be used to reduce heat generated by parking lots?
- Architectural context: What are the strongest architectural features in the development center area and how can the project complement these themes or ideas?
- Signage design: How can an overall signage concept contribute to the graphic identity of the project and the district?

## 6.2 VILLAGE CENTER DESIGN PRINCIPLES AND GUIDELINES

Village center districts should provide a community design framework that blends a mix of uses together around well-defined, active communal spaces.

### 6.2.1 CREATING A SENSE OF PLACE

New mixed-use residential and commercial projects should provide a social and economic focus for surrounding neighborhoods by creating a sense of place.

**Design Guidelines**

- Mixed-use village centers should locate and connect commercial and residential uses to result in a sense of community. Buildings should shape and activate streets and public spaces. Adjacent commercial and multi-family residential uses should be designed to create and share public spaces and streets.

- A unified design concept should be established and be reflected in the architectural style, landscaping, lighting fixtures, signage and other public amenities provided. The use of corporate or franchise architecture is discouraged in the Village Center and shall not be used as compatible theme or style.

- New mixed-use developments should use open space, streets and community facilities to provide social and design focal points. Villages should have a central place such as a town square, main street or village plaza. "Parklets" also effectively contribute to providing social spaces. All these public spaces should be linked by an easily recognized pedestrian system.

- New mixed-use village centers should provide common open space as a centrally located and defining feature.

- Communal activities, such as recreation and gathering spaces, should be centrally or purposefully located to contribute to the social interaction of mixed-use projects and surrounding neighborhoods and feel welcoming.

- The travel experience for pedestrians and drivers should contribute to the sense of community and "neighborhood belonging" in new village center projects and adjacent neighborhoods. The travel experience should convey that pedestrians and bicyclists are present and that autos are secondary.

- New buildings should be designed and oriented to spatially define and activate streets and common open space areas with building entries, storefronts and pedestrian routes. Commercial storefront uses should face public spaces and street edges. These designs promote the sense of safety for those present.

- Village Center parking should not dominate any aspect of the centers pedestrian and open space systems and community image.

*Each project should contribute to the streetscape, pedestrian and auto access objectives, and architectural and signage design objectives for the site and surrounding area.*

- Village Centers should attract a wide range of commercial and retail businesses. Providing healthy food sources and choices; such as full-service grocery stores, ethnic food markets, farm stands or farmers' markets, and food establishments that provide fresh food supporting sustainable local food systems is desirable. Drive-through fast food restaurants are not appropriate in Village Centers.
- Village Centers should incorporate co-location of other facilities or services that supports the needs of residents (i.e. health care center, recreation center, farmer's market, drug or corner store, deli, etc.).

## 6.2.2 Connections to the Community

New mixed-use and commercial projects should be planned as an extension of adjacent new or existing neighborhoods.

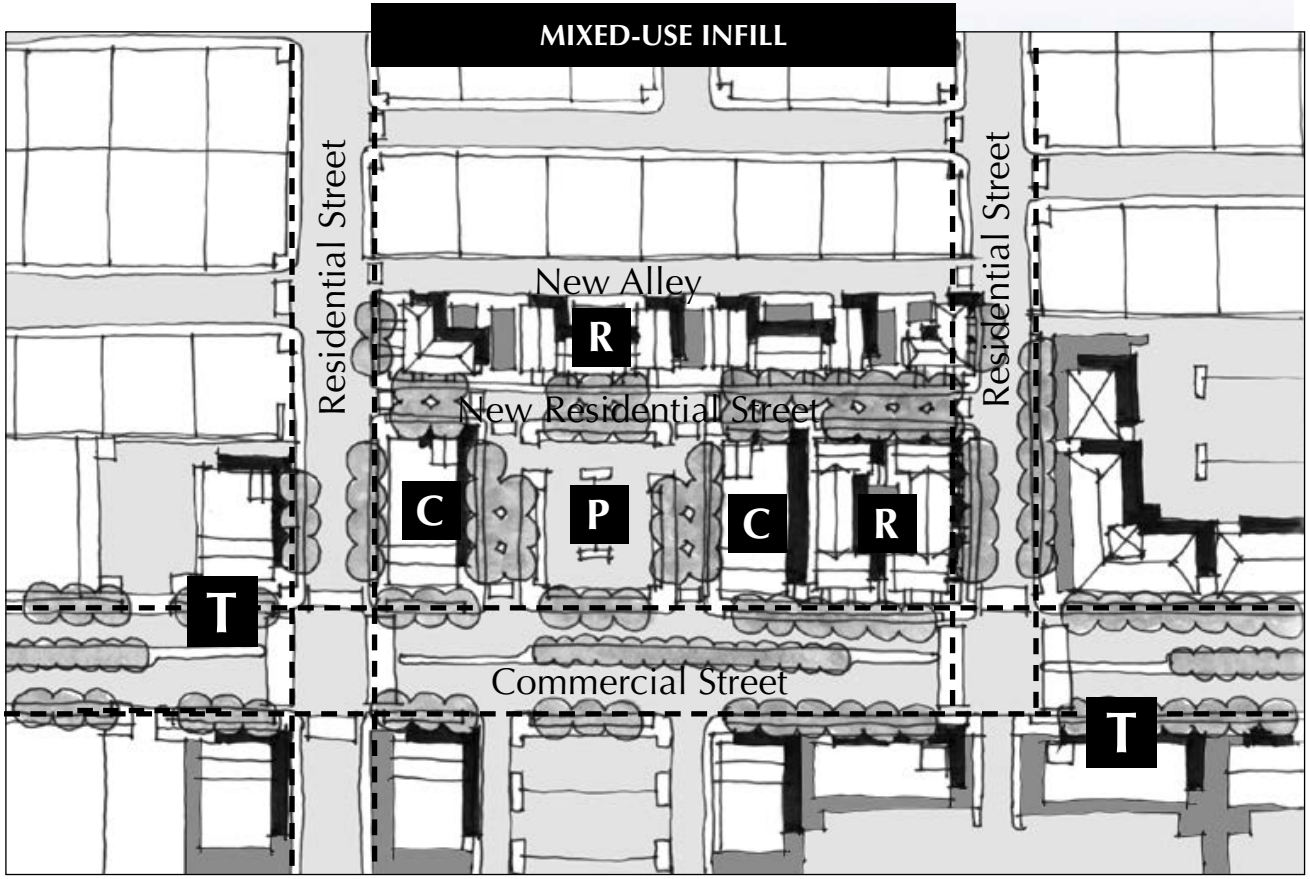
**Design Guidelines**

- Gateways and edges of new village development should provide landscape, street improvements and furnishings as common amenities that are shared with adjacent neighborhoods.
- Village Centers should not be socially gated or distinguished as an enclave.
- New mixed-use projects should provide for connections of existing and future streets.
- Principal access roads into new mixed-use development areas should be of similar scale as streets in adjacent residential neighborhoods. In the event that the adjacent streets are oversized, incorporate designs to reduce street widths and speeds in order to provide a pedestrian dominated environment.
- The street patterns at the edges of a mixed-use village project should be extended into the site.
- The design for new villages, and for retrofit of existing shopping or commercial centers, should have emergency and service vehicle access that maintains the pedestrian friendliness of the street.
- Unnecessary tall concrete block sound walls should not separate commercial uses from residential uses. Where sounds walls exist or are necessary, provide breaks in the sound walls for access from adjacent neighborhoods and designed as "live-ends."
- When designing sound walls, pedestrian and bicycle connections to adjacent neighborhoods can

*TOWNHOUSE AND STOREFRONT DEVELOPMENT*

*This site diagram illustrates how a mixed-use project can be planned to fit into the surrounding commercial district and neighborhoods. The concept diagram includes townhouses and commercial storefronts on a redeveloped site.*

*T Transit stop*
*C New Commercial Storefronts*
*P Parking*
*R Residential*




*Pedestrian Connections to Storefronts and Neighborhoods*

include "live-end" features. Also used in cul-de-sacs, "live-ends" provide for pedestrian access at the ends to adjoining streets, open spaces, parking lots while permitting the access point to be used as a common outdoor space. "Live-ends" should be landscaped and can include benches, providing nice areas for sitting and socializing.

## 6.2.3 Creating Pedestrian-Friendly Streets

Village center projects should be organized around pedestrian-oriented streets rather than driveways and parking lots.

**Design Guidelines**

- Pedestrian connections between commercial and residential developments should be active, friendly, attractive and safe. Large blank walls should not face streets or walkways.
- Public streets must meet the Sacramento County Improvement Standards, including standards for traffic calming. Auto speeds should be between 10-25 mph.
- Mixed-use villages should have a street design that reflects both a functional and design hierarchy that supports a sense of community,
- Primary organizational streets in villages should incorporate planting strips, medians and other design features.
- Private drives should be designed as pedestrian-friendly streets that are a natural extension of the surrounding neighborhood.
- All village streets should include an interconnected system of separated sidewalks and crosswalks.
- Minimize the number and width of driveways and curb cuts.
- Quality paving treatment in areas such as parking lots, common areas, and pedestrian walkways can enhance the visual appearance of a project; promote walkability and activity that contributes to healthy residents, while also providing environmental benefits.

- Use accent paving such as textured paving and paving blocks in driveways. Use of permeable concrete, cool pavements and pavers is desirable.
- Paseos should be utilized to provide common outdoor spaces and allow for pedestrian access through the development, and connection to adjacent developments.

## 6.2.4 Block Sizes, Lot Patterns and Building Orientation

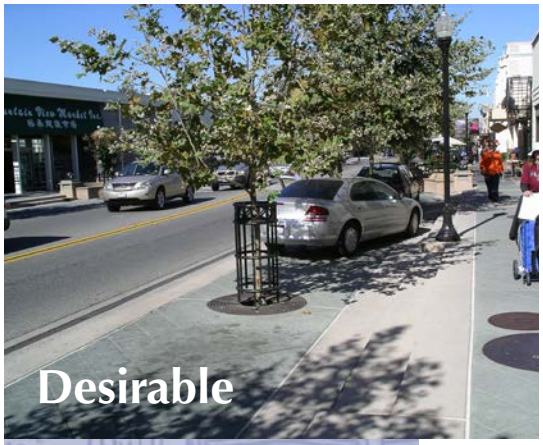
New village center projects should use a block, lot and building pattern that provides an overall organizational structure and results in a pedestrian-scaled environment.

**Design Guidelines**

- Traditional residential-scaled blocks should be used as a reference for the pattern and scale that organize mixed-use village areas. A grid or modified grid block pattern is preferred.
- Block patterns should result in a pedestrian-scaled neighborhood that is comfortable for pedestrians and increases access options for the village and surrounding areas.
- Design concepts for mixed-use villages should consider the scale and character of residential streets. The sizes of lots, scale of buildings, and width of streets should be planned to support the design concept.
- Lots and parcels should be planned to promote friendly residential and commercial building orientation towards neighborhood streets. Lot and parcel patterns should orient storefronts, porches, and yards to enhance the social role of village streets. Residential entries and lobbies should face streets and common open spaces.
- Service areas for commercial uses should be located at the edge of the site and screened to reduce impacts on residents.
- Special siting and building design strategies that protect residential livability near service areas should be incorporated into project design. Avoid trash enclosures, loading docks or other noise-generating areas in close proximity to residential uses. If proximity is unavoidable, establish operational requirements for noise or odors to residents.

## 6.2.5 Parking

*These photos show desirable ways to treat on-street parking. The top photo shows parallel on-street parking with street trees, sidewalks and lighting. The bottom photo shows angled on-street parking.*





Parking in village center projects should support commercial and residential requirements but with less visual prominence than auto-oriented strip commercial centers.

**Design Guidelines**

- Solutions that minimize the visual impact of residential and commercial driveways should be used, including sharing driveways, using alleys, or other innovative design approaches.
- Parking for commercial uses in villages should be located next to or behind buildings. These parking areas should be divided up into smaller, landscaped lots with defined pedestrian connections.
- Parking lots on corner sites should not be located near the intersection and occupy space for streetfront buildings or open space features.
- Residential parking for mixed-use village developments should be located in courts that are not visible from public streets; broken up with shade trees and landscaping; and use a variety of paving materials. For residential uses, a maximum of four garage doors (spaces) should be allowed without a five-foot break between groups of doors.
- Mixed-use village projects involving a planned development process should consider alternative parking solutions including tandem parking, remote parking, single car garages and other methods of reducing the visual presence of parking and cars from the street.
- Parking areas should incorporate designs that include: trees, lighting, landscaped storm water features, cool and pervious pavement and pavers. Plant trees and shrubs to soften the overall impact of parking areas and to provide shade and noise reduction, heat island cooling and improved air quality.
- Flexible use of parking areas provides opportunities for additional social interaction between businesses, customers, and residents by providing space for large special events and festivals.

- Lighting in parking areas should be LED lights or other acceptable high energy efficiency light, with automatic controls to dim lights after certain hours or when no one is present. Lighting shall be adequate to provide for a safe environment.
- Create textures, patterns, and colors in the design of paved parking areas or entries to create visual interest and to distinguish them from other paved areas. Do not design large monolithic areas of single color untextured paving.
- Use accent paving such as textured paving and paving blocks in driveways. Use of permeable concrete, cool pavements and pavers is desirable.
- Incorporate storm water quality measures into the parking areas to treat the storm runoff and enhance the parking areas by providing shade and reducing the amount of paving.
- Residential parking garages should be located behind the front building elevation.
- Multi-story garages serving mixed use villages should have an exterior design that is consistent with the village design theme and image. When garages are located along major pedestrian circulation routes, the ground floor frontage should be considered for commercial or public focused use.
- Provide for electric vehicle fast-charging stations, car and bike share locations, and other alternatives such as zip car.
- Bike racks shall be designed with the most current designs that provide secure locking features and are attractive. Many bike racks double as public art to add interest.

*These sections show how streets can be designed to accommodate commercial and residential frontage. The illustrations include a "community street" that is wider and has community-serving commercial uses, and a "main street" that has neighborhood-serving retail.*

**VILLAGE STREETS**

Community Street

Main Street

## 6.2.6 Streetscape and Landscaping

Streetscape and landscaping should promote pedestrian activity and provide for pedestrian safety, access, comfort and connections while contributing to overall placemaking and image objectives for village districts. Landscaping and trees can be used to complement buildings and to make a positive contribution to the aesthetics and function of the specific site and area. These aesthetics contribute to the mental and emotional well-being of customers, and support economic activity. Landscaping helps reduce storm water runoff, filters water and captures carbon and air particulates to improve air and water quality, provides shade during summer months and lowers temperatures reducing heat island impacts.

**Design Guidelines**

- Landscape concepts should enhance the linkages between residential and commercial uses.
- All streetscape improvements must meet the Sacramento County Improvement Standards. Larger trees will require wider planting strips.
- Mixed-use village developments should provide a comprehensive streetscape plan. The plan should satisfy street design; pedestrian safety, access and comfort; and visual amenity objectives for the village. Signage, lighting and landscaping should provide a thematic identity for mixed-use sites. The use of green and sustainable development standards and practices in planning, design, construction and renovation of new and existing buildings should be used wherever possible.
- Streetscape should enhance the identity of the village center by employing a variety of trees and other plant material that contributes to each street's identity and character.
- Along streets with greater than 50,000 vehicles ADT, plant trees conducive to absorbing particulates including deodar cedar, valley oak, and redwoods. Utilize canopy trees for pedestrian areas to increase shading, cool the pavement and support walking.
- In residential areas, projects should include at least one street tree per lot or 30' of lot frontage, whichever is smaller. Trees should be placed in planting strips, sidewalk tree wells or front yards in a manner that supports the village comprehensive streetscape plan.
- Sidewalks adjacent to storefronts should be wide enough to accommodate outdoor sitting areas and landscape. This should include a combination of at least four feet for planting, eight feet for sitting, and

*Streetscaping should enhance the identity of the village center by employing a variety of trees and other plant material that contribute to each street's identity and character.*

six feet clear for walking.

- Street trees with large canopies are required for sidewalk areas. Trees should be spaced 25-30 feet on center and be coordinated with the bay spacing and storefront design of the project.
- Include street furniture and pedestrian-scale lighting in planning and development of mixed-use projects.
- Landscaped storm water quality design measures provide multiple public benefits and should be integrated into open space areas to provide storm water quality benefits and landscaping benefits.
- Incorporate appropriate landscaping that includes a variety of trees, shrubs, and other plantings. Utilize Sacramento County's River Friendly Landscape (RFL) Guidelines for plant material selection, placement and maintenance. The sustainable RFL guidelines are water and energy efficient, reduces maintenance, improves air quality and diverts green waste from the landfills.
- Provide on-going maintenance to identify and ensure the timely replacement of any dead or diseased vegetation.
- Design landscaping to be compatible with building design. Use trellises, arbors, cascading landscaping, vines and perimeter garden walls wherever suitable.
- Consider security issues in the landscape design of the site, including creation of barriers and screening.
- Do not allow landscaping to impede fire access to hydrant connections.
- Preserve and incorporate existing and native trees within the project site design to the greatest extent possible.
- Retain existing mature trees in landscape and building location plans to the greatest extent possible. Where existing trees must be removed, trees shall be replaced on-site or in another location, acceptable to the Planning Director, to compensate for the loss in canopy and environmental benefits. Participation in the County's Tree Mitigation program to compensate for canopy loss is also acceptable.

- Provide all landscaped areas with irrigation systems as needed to sustain the landscape. Comply with the County's Water Conservation Ordinance. Utility services and equipment should be enclosed or buried, or otherwise concealed from view.

- Use of known high allergen plantings is discouraged.

**Drainage/Flood Facilities**

- Size, type, and location should be sized and located as to support the community master plan goals.

- To encourage sufficient usage, parks and open space should be strategically located in or near residential areas and commercial districts and be accessible via roadways, transit routes, and off-road pedestrian and bicycle trails and paseos (walkways).

- Neighborhood parks are encouraged to be centers of neighborhood activity and could be combined with schools, community recreation centers, libraries and other civic uses.

- Public safety is a high priority and Crime Prevention Through Environmental Design (CPTED) principles should be applied.

- Flood protection and drainage facilities should be designed to provide multiple public benefits wherever possible. Facilities should include multi-purpose improvements consisting of recreation, the environment, storm water runoff, water reclamation, infiltration, groundwater recharge, flood control, etc. Attractive joint use basins, such as parks (in addition to Quimby land dedication requirements) or parkways with trails that also convey water to water quality basins or similar facilities and provide some water quality treatment are examples of desired multiple public benefit facilities.

## 6.2.7 Integrating Transit

Transit access is of particular importance for village center districts. Bus and transit stops should be safe, social and centrally located places that help energize and focus village districts.

**Design Guidelines**

- Transit facilities should be centrally located in the village district. They should be visible and socially integrated into the planning of new and redeveloped village centers.
- Pedestrian connections to transit facilities should be easy to understand, safe, comfortable and friendly.
- The business owner is encouraged to provide a location for convenient route and schedule information.
- Shelters and lighting should be provided. The design of shelters should anticipate the number of transit patrons and their physical comfort. Shade, and screening from wind and rain should be a design consideration for transit shelter design.
- Bike facilities should be designed into every village.

# 6.3 Village Center Architectural Principles and Guidelines

Each project in a village should contribute to placemaking objectives for the community.

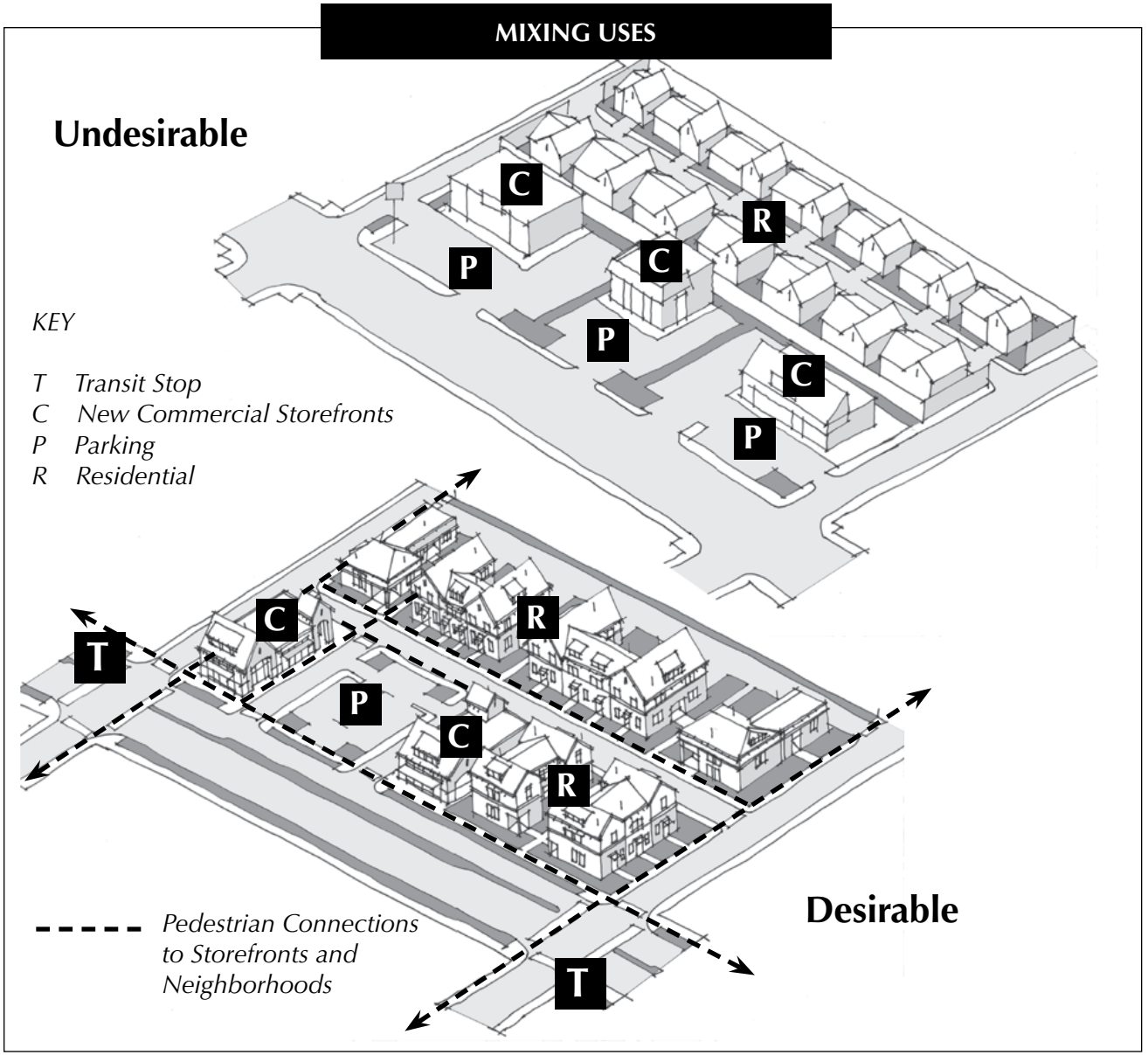
*This photo shows a residential building with expressive design features giving the building a rhythm and reinforcing placemaking objectives.*


## 6.3.1 Building Form and Massing

Massing and orientation for residential, commercial and mixed-use buildings in village districts should have a pleasing composition while reinforcing placemaking, economic and social objectives.

**Design Guidelines**

- Building form and design should have a deliberate street and street corner orientation in village districts.
- Upper levels should have expressive design features, such as balconies and bay windows, that give the building a rhythm and residential scale.
- Roof forms should reflect the project's architectural context. In a commercial context, the roof may be flat or have a strong horizontal cornice element. In a residential neighborhood edge or village context, roof forms should include hip or gable elements.
- For vertical mixed use, the uses should be an identifiable design element.
- Roof-mounted equipment shall be concealed by enclosures that are consistent in design with the building roof.
- The massing concepts of multi-story development should transition in scale between commercial streets and single-family residential streets.
- Building design concepts should include stepping down the scale and mass and increasing side or rear yard setbacks of taller buildings where they are adjacent to existing single-family areas.




*MAKING MIXED-USE SOCIAL*

*These two site diagrams illustrate two ways to develop a site with a mix of residential and commercial uses.*

*The design concept on the top is undesirablebecause it:*

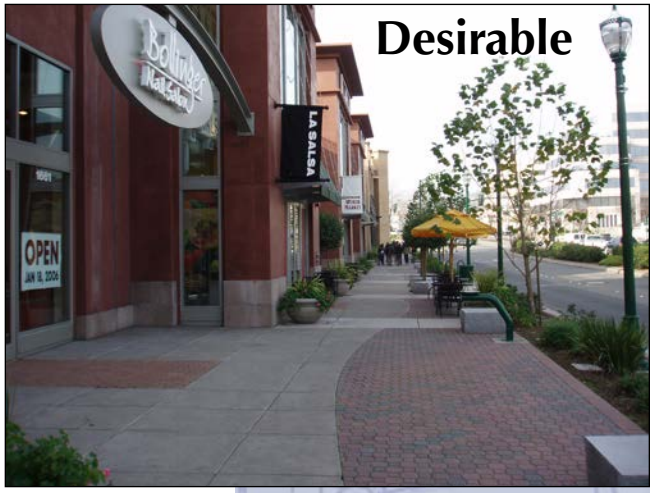
- *Has disconnected commercial development;*
- *Creates multiple curb cuts and several disconnected parking lots;*
- *Creates an isolated walled subdivision; and*
- *Results in unsafe and uncomfortable pedestrian experience.*

*The bottom example is a desirable design concept. The concept is desirable because it:*

- *Has connected commercial buildings that share parking and access;*
- *Creates good pedestrian edges that are connected and interesting;*
- *Creates a variety of public and private spaces;*
- *Has a variety of housing designs; and*
- *Enhances access to adjacent neighborhoods.*

- Units should be oriented toward public streets and commons rather than neighboring backyards.
- Parking for commercial or mixed use buildings should be designed and located to mitigate noise and visual impact on adjoining residential neighborhoods.
- Residential and commercial development should be interfaced with streets or open spaces rather than sharing a property line.

*These photos show examples on how to design shopfronts for good pedestrian connections in a suburban setting. The sidewalks have connections to adjacent residential blocks.*





## 6.3.2 Architectural Design

Architectural features should reinforce massing, place-making concepts and express the mixed-use nature of village centers.

**Design Guidelines**

- Commercial and residential buildings in mixed-use villages should contribute to overall planning and place-making objectives, while providing architectural variety. They shall conform in design to the relevant provisions of the Multi-Family Guidelines (Chapter 3.0), the Commercial Design Guidelines (Chapter 4.00 and the Employment Center Design Guidelines (Chapter 5.0)
- Residential and commercial buildings should express their function and purpose. Commercial storefront buildings should be designed to create a successful shopping experience. Transparent storefronts, bay spacing and details should reflect the pedestrian scale and pace of storefront retailing.
- Storefronts should maximize openness and transparency.
- Residential design features should enhance the expression of individual units and houses. This includes balconies, bay window elements, roof design, entries, porches, and window patterns.

*Architecture within each mixed-use project should use a palette of materials that convey an image of quality and durability.*

## 6.3.3 Materials and Colors

Selection of materials and finishes should support architectural and massing concepts for village centers.

**Design Guidelines**

- Commercial frontage portions of mixed-use projects should utilize materials and colors that support retailing and image objectives for shopping environments.
- Use sustainable building materials that are high quality, durable, provide energy efficiency benefits, require low maintenance, and complement the design of the building. Use of quality recycled products is encouraged.
- Use of "Permanent" and/or cool roof products and materials with reflective surfaces are desirable because of their low maintenance, energy conservation and insulation values.
- Employ Energy Star appliances and energy efficient lighting in construction, to the extent feasible, consistent with the adopted Green Building Policies and requirements.
- Portions of mixed-use projects with residential frontage should use colors and materials that enhance the project's architectural concepts and are compatible with adjacent residential streets.
- Architecture within each mixed-use project should use a palette of materials that convey an image of quality and durability. Certain materials have an inherently inexpensive, insubstantial or garish quality. These materials should not be used in new construction or renovation.

  Examples include:
  - » Roofs: glazed or painted tiles, highly reflective metal or sheet materials, fake shingles made from metal or plastic materials
  - » Walls: vinyl, metal, plywood, T-111 siding, masonite or other sheet materials
- Wood or hardboard siding, if used, should be shiplap or board-and-batten.
- Shiplap should be installed so there are no visible joints. Board-and-batten should be installed so there are no visible joints in the underlying "board" material.

- Painted surfaces should use colors that reinforce architectural concepts and are compatible with natural materials, such as brick or stone.

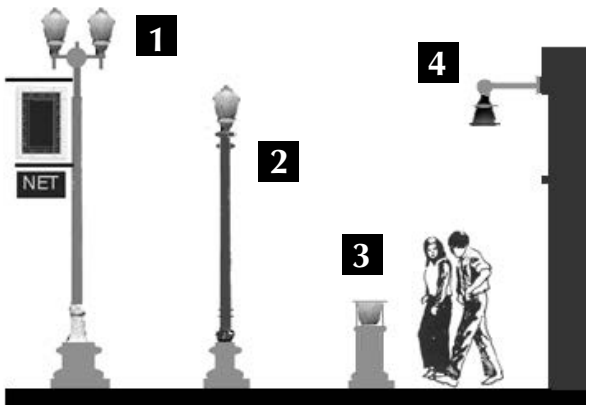
## 6.3.4 Lighting

Lighting concepts should be an integral part of the overall village design concepts anticipating the needs of pedestrian and automobile circulation, open spaces, storefront shopping, and residents.

**Design Guidelines**

- Lighting on commercial elevations of mixed-use village projects should support overall objectives for the street and storefront design.
- Elevations with residential front porches should have individual lights that illuminate entries and walkways.
- Lighting in service or common areas should be shielded from adjacent residential units.
- Lighting should provide for business interest even after hours, when business is closed, to contribute to pedestrian presence and sense of safety.
- Provide energy efficient lighting in all common areas and buildings, including pedestrian and vehicular routes. The emphasis should be on personal safety, with lighting landscape or building surfaces secondary.

## VILLAGE DISTRICT LIGHTING

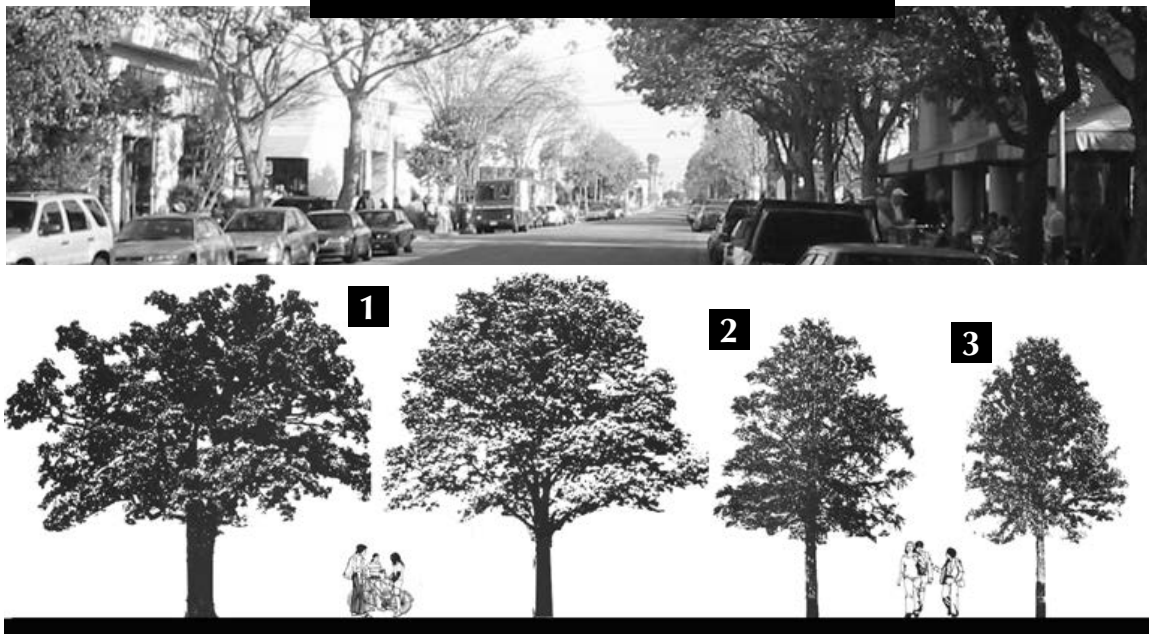



*LIGHTING A PEDESTRIAN DISTRICT*

*These sketches illustrate a family of lighting elements that provide for the safety and functional requirements for mixed-use villages.*

*1. Parking and Street Lighting*
*2. Street Lamps*
*3. Pedestrian-scale Light Bollards*
*4. Wall-mounted Sidewalk Lighting*

## VILLAGE DISTRICT TREES




*These sketches illustrate the selection of street trees for a mixed-use neighborhood. Tree selection should reflect County Improvement Standards and the district's urban design objectives.*

*1. Street Canopy Trees*
*Where: Wide streets, residential frontage*
*Require: 6-7′ planting strips*
*2. Vertical Street Trees*
*Where: Medians, near intersections*
*Require: 5-6′ planting strips*
*3. Smaller Upright Street Trees*
*Where: Storefront edges*
*Require: 4-5′ tree-cuts*

## 6.3.5 Walls and Fences

Screen walls are generally regarded as mitigation for poor site planning. However, when walls or fences are required, they should be designed as an extension of village architectural and landscape design concepts.

## 6.3.6 Service Areas

Service and loading dock areas in village centers should be placed in locations that are not visually prominent and screened from view.

**Design Guidelines**

- Loading areas should be located to rear or inside side yards. Loading areas should not be visible from public streets or adjacent buildings.
- Trash bins and compactors, utility meters, transformers, and other service elements should be enclosed or otherwise completely concealed from view. Service elements should be designed as an integral element of the project's architecture.
- Provide sound-attenuation features around noise-generating areas such as trash enclosures and loading docks. Such features may include fully enclosed loading docks and higher dock walls.
- Locate noise generating services so that vehicular service drives have a minimized noise impact on any adjacent residential uses.
- Provide trash and recycling education information near enclosures. Provide enclosures in a safe and secure location kept clean and odor-free.
- Design trash enclosure areas to the County's latest storm water quality source control design standards, and provide trash and recycling education information.
- Refer to the commercial Section 4.4.6 for guidelines on wireless communication facilities.



# 6.4 Village District Signage

Village district signage should help define the district's identity and address a pedestrian's pace and scale.

## 6.4.1 District Image and Wayfinding Signage

Village centers should have overall signage and graphic identity concepts that guide district, site and building signage design day and night.

**Design Guidelines**

- Village image and design themes should be reflected in a district-wide signage plan. The plan should include a "family" of signage that supports the merchandising needs of tenants, wayfinding, and graphic identity objectives for the village and adjacent neighborhood.
- District identity and wayfinding signage should be designed and located as part of an overall district signage plan.
- Placement and maintenance of village district signage must be coordinated with the County Department of Transportation and comply with ADA requirements.
- Refer to the commercial Sections 4.5.4 and 4.5.5 for guidelines addressing water tanks and towers and billboard signs and digital billboards.

## 6.4.2 Multi-Tenant Project Signage

Village center buildings should have graphic standards and schedule for building, tenant and wayfinding signage that reinforce pedestrian scale and pace of the district.

**Design Guidelines**

- Multi-tenant buildings in village districts should have an overall signage concept plan.

- A project's signage plan should be designed for known tenants and future unknown tenants.
- Large, garish signs unnecessary to the commercial use of a village center are discouraged.
- Affixed signs should be composed of individual characters; cabinet signs are discouraged.
- Affixed signs should be placed only on vertical surfaces below the eaves or parapet line. Rooftop signs are discouraged.

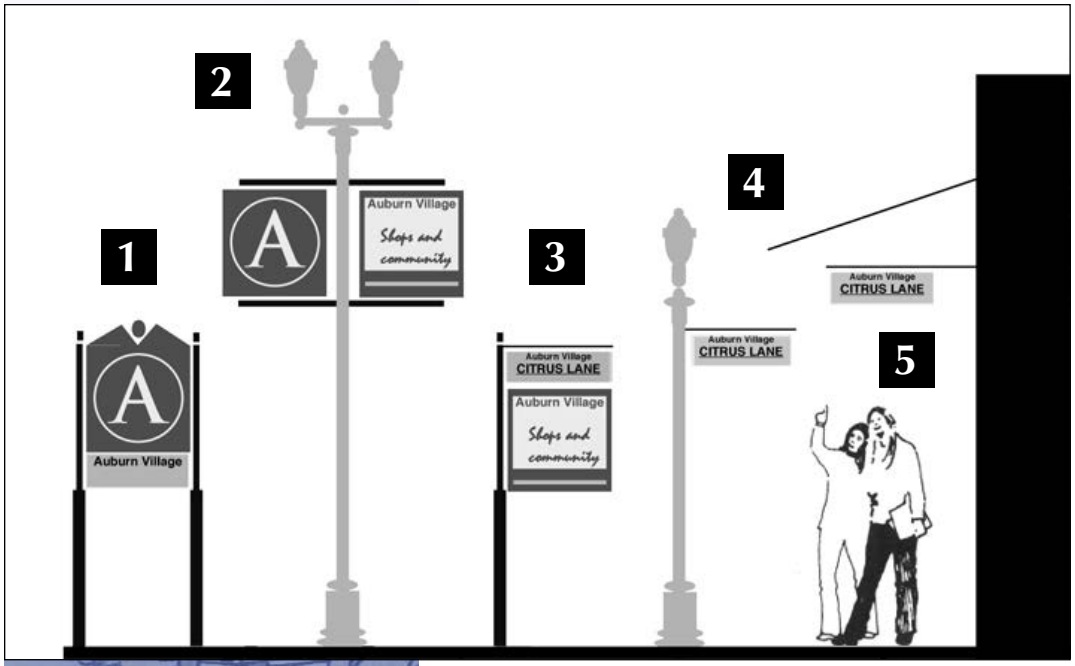
### 6.4.3 Storefront Signage

Storefront signage should reinforce the pedestrian orientation of village centers.

- Awning signs are allowed with graphics and signage limited to vertical surfaces. Awning signs should count against cumulative areas for affixed signs.
- Suspended blade signs are allowed under awnings or canopies.
- Maintain windows free of obstructions and signs to promote maximum visibility of merchandise, and visibility by Sheriff patrol consistent with CPTED strategies.

## 6.5 Project Operational Elements

The operational elements design guidelines for mixed-use mirror those of the commercial district section. Please refer back to Section 4.6 for this information and details.




*This sketch shows a family of signage that would be appropriate in a mixed-use village district.*

*1. District Signage*
*2. District Banner Signage*
*3. Wayfinding Signage*
*4. Street Signage*
*5. Blade Signs*

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# 7.0 New Communities Design Guidelines

## 7.1 Purpose

Sacramento County expects high quality design in new communities and other large projects. One of the objectives of the County's General Plan Land Use Element is to have urban design in the unincorporated County that is functional, aesthetically pleasing, and distinctive. This objective will be met through the County's Design Review program – a process in which projects from individual buildings to entire new communities are reviewed to ensure that their design is compatible with the project's surroundings and that the project will be a positive addition to the County, both functionally and aesthetically. The County has established design guidelines for residential and non-residential projects which are at the individual building or subdivision scale and design guidelines for new communities which are at the community-wide scale.

The purpose of the guidelines in this chapter is to assist master planning of new communities at the community-wide scale. The application of these guidelines will contribute to the development of high quality new communities where residents could reside, work, socialize and recreate. New communities encompass master plans for new growth areas, master plans for large infill projects, and major revisions to existing planned communities. Master plans for communities in new growth areas and communities in established urban areas should indicate the community's special character, image, livability and sustainability that contribute to the quality of life in Sacramento County.

Using the County-wide Design Guidelines, master plan documents for new communities shall illustrate consistency with design guidelines for each of the plan's land use components (commercial, industrial, residential, etc.). All new communities shall submit a project level set of Design Guidelines or equivalent that demonstrate compliance substantial conformance with the County's Guidelines and provide a fine grain of detailed project design features. The Master Plan Design Guidelines shall be evaluated on:

- A comprehensive response to meeting and exceeding the new community goals, planning principles, and guideline objectives in Chapter 7.0 ; the development design guidelines contained in Chapters 2.0, 3.0, 4.0, 5.0 and 6.0; the relevant County Department of Transportation, Department of Parks and Recreation, and local park District Design Guidelines; and the South Sacramento Habitat Conservation Plan Design Guidelines (adoption pending).

- Meeting its stated special and unique character, sense of place, and contribution to the health and well-being of present and future residents of Sacramento County.
- Providing a finer grain of specific details for the quality envisioned for the project, including building form, theming at the neighborhood and community level, a robust list of amenities, design and activation of the public realm, and the relationship between uses.


## 7.2 Planning Goals

The Design Guidelines for New Communities shall implement the goals and policies of the County's 2030 General Plan.

The specific goals for new communities shall encompass:

- Mix of Land Uses: Mix land uses to build complete communities that combine a variety of housing options, retail and commercial opportunities, employment centers, civic and community facilities, public spaces, and recreational amenities. Locate vibrant and compact mixed-use town centers and lifestyle centers near neighborhoods and in major transportation corridors, providing an environment where pedestrians feel safe and comfortable.
- Walkable Neighborhoods: Create neighborhoods with housing, jobs, public spaces, goods and services located within reasonable walking and biking distance of each other. Build compact, mixed-use communities with safe and appealing streetscapes, paseos (walkways) and trails to encourage pedestrian and bicycle travel.
- Range of Housing Options: Plan and build a range of housing choices within neighborhoods, varied by cost, design, size, location, and tenure to allow a diversity of economic levels, age groups and cultures to live together. Locate housing near places of work, retail, and educational and health services; and provide an integrated transportation system to offer residents an alternative to traditional, segregated suburban neighborhoods.

*Safe and appealing streetscapes encourage pedestrian activity.*

*Mature trees such as this live oak should be preserved and incorporated into the project.*

*Passive cooling elements incorporated into design of building*

- Comprehensive Transportation System: Integrate land use and transportation planning to design and implement a safe and efficient multi-modal transportation system, tied to both local and regional networks. Provide facilities that encourage walking, biking and public transit usage as preferred alternatives to automotive travel. Encourage compact mixed-use developments along transportation corridors clustered around transit stops.
- Natural Resource Preservation: Protect, enhance, and preserve natural resources as valued assets that provide critical ecosystems and food production.
- Focus on Livability: The community shall as a whole and in its parts enhance the quality of life, health and wellness for its residents and users, and provide a unique sense of place and contribution to the community.
- Focus on Sustainable Design: Sustainable design supports development in ways that are environmentally conscious, economically sound, and which provide community-wide benefits. Sustainable design increases community resilience, as well as enhances health, livability and protects natural resources. Design strategies should be used that support energy and water conservation, water use efficiency, integrative storm water treatment, urban greening and forestry, green infrastructure, and use of renewable resources. Active design strategies are also sustainable and should also be used to provide active transportation choices such as walking, bicycling, and accessing transit in coordination with safety and crime prevention through environmental design elements.
- Comprehensive Planning: All parts of the community should function as an integrated whole.
- Integrated with Other Communities: The land use plan for a new master plan community should be integrated with those of adjacent master plan communities. For instance, land uses along the community's borders should be compatible with land uses of the adjacent community.

# 7.3 Application of Guidelines

- These guidelines shall apply to all development encompassing new communities of over 50 acres that are not part of an existing plan.
- Master plans of new communities should include the following components and meet and exceed the objectives of the following guidelines. It is recognized that some projects, due to size limitations, cannot include all of the components.

# 7.4 Components

(Note: Figure 1 "Components of a New Community" illustrates the application of many of the following guidelines)

## 7.4.1 Village Center / Mixed Use Districts

**Design Guidelines**

- Because a village center serves as the center or "downtown" of the community, a center should be a mixed-use district with higher intensity development, located in a centralized location with the community. A village center should also have strong pedestrian, bicycle and transit connections to the rest of the community. Vehicular connections shall be provided that are clearly identifiable and connect to the rest of the community.
- Village centers should use open and landscaped spaces such as courtyards and plazas, streets and community facilities (civic buildings) to provide social and design focal points. The community's main civic buildings and spaces should be located in prominent locations and be established as community landmarks. Village centers should also have a central place such as a town square, main street or village plaza which could be areas of community events such as live theater, concerts, festivals and street fairs.
- To create a sense of place, streets should be aligned such that they provide views of prominent buildings and spaces and which will also aid in orientation and way-finding.

*Buildings designed around main plaza*

*Mixed Use Village Districts could include shopping streets with office or residential over ground floor retail/services.*

- There should be a variety of land uses with institutional, commercial, office, and high density housing in a mixed-use setting. The scale of mixed uses should be at the block level.
- To enhance walkability and connectivity, the predominant street pattern for village centers should be a grid or modified grid pattern with maximum block lengths of 300 to 500 feet. Blocks of greater than 500 feet should have mid-block crosswalks and pass-throughs.
- When any mixed-use district is designated in a master plan, it shall have a master development plan. This master development plan shall have a residential component and at least one or more of other uses: retail/services, office/institutional, public/civic.
- For horizontal mixed-use, contiguous discrete areas devoted to one use of no more than three to five acres are encouraged.
- Design of village center plans and elements shall conform to the Village Center/Mixed-Use Guidelines in Chapter 6.0.

## 7.4.2 Commercial Districts

**Design Guidelines**

- Commercial districts adjacent to residential neighborhood areas should be concentrated in centers (nodes) rather than spread thinly along frontages of major roads in typical "strip mall" fashion.
- Commercial districts should be located so that all residential neighborhoods and employment centers have convenient access to appropriate commercial activity so as to reduce auto usage and promote alternative modes of travel.
- Commercial districts should include a wide spectrum of uses to serve the new community's commercial activity needs and contribute to the economic vitality of the community.
- Commercial districts should vary in size from community commercial districts with large anchor stores and grocery stores that serve the entire community to neighborhood commercial districts that may have a small grocery or convenience store, pharmacy or health center, and serve the nearby neighborhood.

- For the convenience of residents, community commercial districts should be located no more than one (1) mile apart from each other. Neighborhood commercial districts should be no more than ½ mile from another neighborhood commercial district or the nearest community commercial district.

- To create a sense of place while contributing to the vitality of the district, commercial districts should be designed around well-defined active communal spaces that include a central place, such as a large courtyard, main street or plaza. These communal spaces could be sites for special events.

- To maximize connectivity within the commercial districts and so support pedestrian activity, the overall vehicular and pedestrian circulation pattern in larger commercial districts should be a grid or modified grid pattern that include roadways and driveways. As much as possible, a major roadway such a thoroughfare or arterial should not separate residential areas from commercial areas.

- Design of commercial district plans and elements, shall conform to the Commercial Design Guidelines in Chapter 4.0.

*Communal spaces should be located throughout the commercial district.*

*Driveways with diagonal parking increase connectivity within the commercial district.*

## 7.4.3 Office, Business Park, Institutional, and Industrial Developments

**Design Guidelines**

- To encourage public transit use, high intensity business districts should be located within ¼ mile of public transit.
- High intensity business districts should be located near major residential and commercial areas and have auto, pedestrian and bicycle linkages to those areas.
- For the convenience of its employees, business districts should have supporting user facilities such as dining and day care.
- Business districts shall have a clear master plan framework and design aesthetic that also incorporates a landscape theme and elements contributing to the health and wellness of employees and patrons.
- Heavy industrial uses, such as manufacturing or processing, should be located near railroad lines and/or major thoroughfares. These uses should be buffered where appropriate, from residential, commercial and high intensity business districts to eliminate or reduce impacts to these areas.
- Office, business park, institutional, and industrial developments shall meet the design standards at the building district, complex, and individual building level as described in Chapter 5.0.

*Business office park with accessible commercial services*

## 7.4.4 Residential Neighborhoods

**Design Guidelines**

- To encourage income diversity within a master plan community, there should be a variety of housing types and densities, and could include single family homes, duplexes, triplexes, accessory dwelling units, townhomes, condominiums, and apartments in a variety of settings.
- For the convenience of its residents and to encourage pedestrian and bicycle activity, residential neighborhoods should include neighborhood parks and schools that are located together or separately in central locations, with safe pedestrian and bicycle access.
- Residential neighborhoods should plan for neighborhood-oriented institutional uses such as churches, day care centers, health centers, and private schools.
- If the overall project includes employment centers, then the project should provide connections and facilities to encourage pedestrian, bicycle, and transit use between employment centers and residential neighborhoods. Strive to locate residential neighborhoods within walking distance (1/2 mile) of employment centers.
- Residential neighborhoods should provide strong connections to major project or community amenities, such as community centers and regional trails systems.
- Medium and high density residential developments should be integrated into the community in a transit-supportive fashion such as locating apartments next to shopping centers that are served by transit lines.
- Residential densities should increase as development meets a community or neighborhood center in order to maximize the number of potential customers that are near the community or neighborhood center.

*Neighborhoods organized around parks*

*Long residential blocks could be broken up with walkways that are attractive to pedestrians.*

- In environmentally sensitive areas and areas abutting land intended to remain rural, provide appropriately lower densities and preserve open spaces by clustering units close to roads and existing developments.
- Residential neighborhoods should have a variety of housing types in a grid or modified grid street pattern to enhance walkability and connectivity. Block lengths should be 500 feet or less. Blocks of greater than 500 feet should have mid-block crosswalks and pass-throughs.
- Residential units that are used to meet Housing Element Program A4 requirements are required to have at least a certain percentage of its residential units to be built at a density that is equal to or exceeds the current Housing Element's "default density". This "default density" is considered appropriate to accommodate the development of future affordable housing.
- Alleys can remove garages from the streetscape and can improve the streetscape of a residential neighborhood.
- Streets that are main routes to neighborhood focal points such as schools and parks shall be "complete streets" with safe access for all users, including pedestrians (sidewalks), cyclists (bike lanes), transit and vehicles. Complete street landscaping shall include trees to provide shading and enhance the users experience while contributing to improving air quality and the surrounding environment.
- Housing that accommodates elderly, special needs, a range of income levels and preferences should be available, and incorporate active design elements.
- Residential neighborhood design of plans and elements shall conform to the Design Guidelines for Single Family Chapter 2.0 and Multi Family Chapter 3.0.

*Housing that accommodates the housing needs of the elderly and other special needs groups should be provided.*

## 7.4.5 Parks, Open Space and Drainage/Flood Facilities

**Design Guidelines**

- Size, type, and location shall be sized and located as to support the community master plan goals.
- To encourage sufficient usage, parks and open space should be strategically located in or near residential areas and commercial districts and be accessible via roadways, transit routes, and off-road pedestrian and bicycle trails and paseos.
- Parks and open space areas should be used as methods to connect communities and neighborhoods and provide alternative modes of travel via sidewalks and trails.
- Open space areas could be used to delineate community or neighborhood boundaries.
- Parks and open space should be integrated into neighborhoods to encourage outdoor recreation and preserve natural habitats.
- Neighborhood parks are encouraged to be centers of neighborhood activity and could be combined with schools, community recreation centers, libraries and other civic uses.
- Parks and open space areas should include linear parkways with off-street trails integrated with the transportation system. Public safety is a high priority and Crime Prevention Through Environmental Design (CPTED) principles should be applied to the design of off-street trails.
- Flood protection and drainage facilities shall be designed to provide multiple public benefits wherever possible. Facilities shall include multi-purpose improvements consisting of recreation, the environment, storm water runoff, water reclamation, flood control, etc. Attractive joint use basins, such as parks (in addition to Quimby land dedication requirements) or parkways with trails that also convey stormwater to water quality basins or similar facilities and provide some water quality treatment are examples of desired multiple public benefit facilities.
- Open space should be connected to provide habitat corridors through urban environments.

*Walkways or off-street trails should connect residential areas with parks and open spaces.*

*Separated pedestrian sidewalks and well-marked Class II bicycle lane on residential neighborhood street*

## 7.4.6 Transportation Systems

**Design Guidelines**

- Design the circulation system with multiple routes by: 1) creating direct, short and simple linkages between residential neighborhoods and activity centers; 2) reducing the need to use arterial streets for local trips; and 3) combining circulation routes with other community elements (e.g. pedestrian and bicycle paths through parkways).
- Transportation needs of the community should be served by an integrated and balanced system for vehicular, transit, bicycle, and pedestrian use.
- Master plans should provide direct and efficient connections between internal transportation infrastructure (including roads, pedestrian and bicycle facilities, trails and transit routes) and existing, planned or proposed transportation infrastructure adjacent to the Master Plan boundaries.
- To encourage transit usage, high density residential and commercial mixed-use projects (vertical or horizontal) should be located within walking distance (¼ mile) of a transit center.
- Development should reflect the use of average residential and commercial densities that maximize transit system ridership.
- The streetscape design of the circulation system should clearly portray the street hierarchy with attention to traffic calming and pedestrian safety.

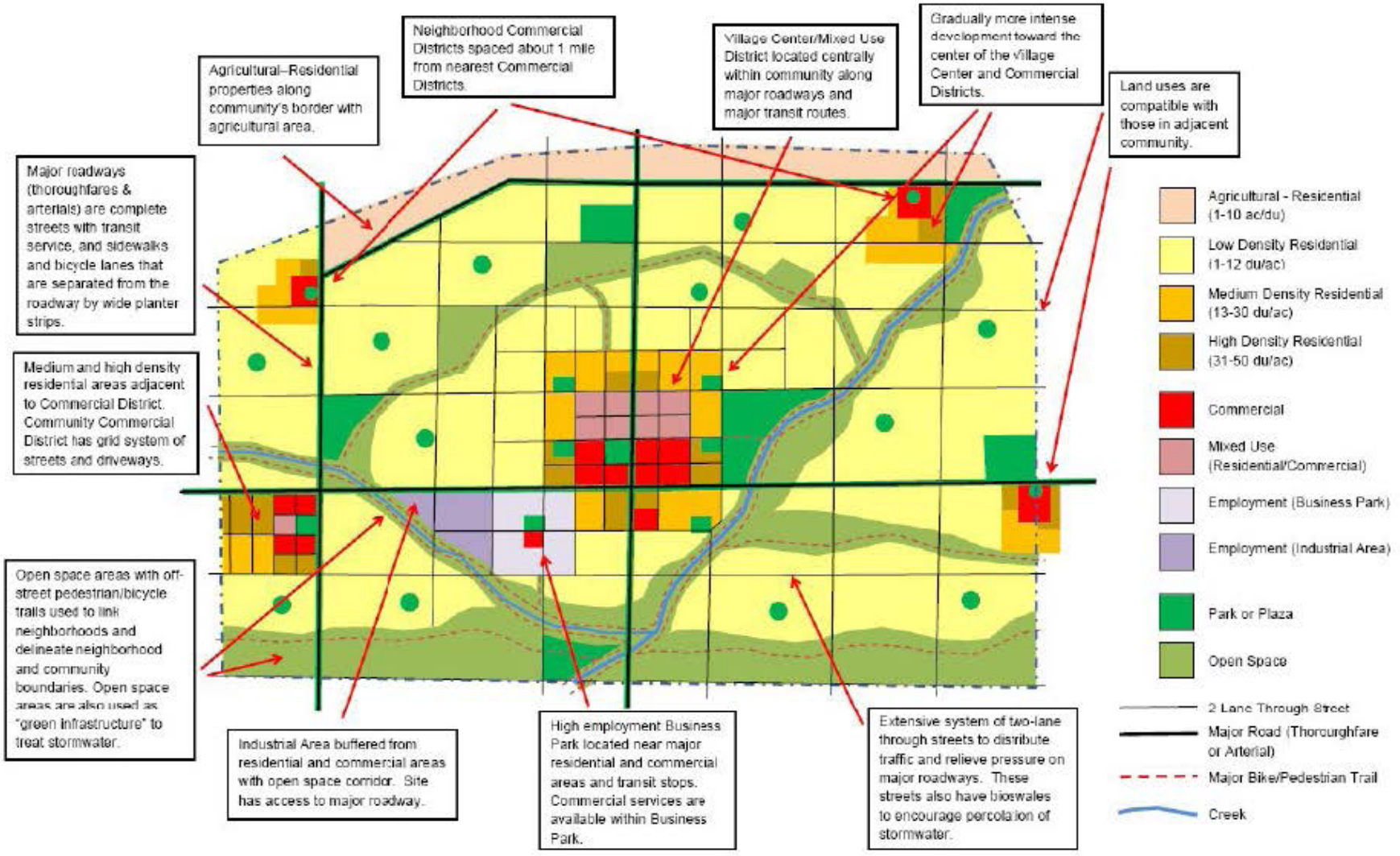
## 7.4.7 Sustainability

**Design Guidelines**

- The master plan as a whole and in its parts shall support sustainable design principles that reflect those delineated in the Sacramento County 2030 General Plan, and the Active Design guidelines highlighted throughout the Countywide Design Guidelines and further described in Appendix D of these guidelines. Sustainable Design elements shall be used that contribute to improving the human, economic and environmental health of the community.

- Use Chapters 2.0, 3.0, 4.0, 5.0, and 6.0 of the Sacramento County-wide Design Guidelines to indicate sustainable design strategies at the project level.

## FIGURE 7.1
## COMPONENTS OF A NEW COMMUNITY



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# Appendix A: Relationship to Other Documents

The Countywide Design Guidelines are intended to work in-concert with existing and future policy and regulatory documents.

## A.1 Sacramento County General Plan

The Sacramento County General Plan guides the County to the year 2030 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 Board of Supervisors, 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 Sacramento County.

## A.2 Sacramento County Housing Element

The Sacramento County Housing Element is part of the General Plan. The goal of the Housing Element is to promote an adequate supply of decent, safe and affordable housing to meet the needs of all residents of Sacramento County. Design concepts influence the built environment, and land use decisions play an important role in protecting the public health, safety, and welfare of the County's citizens, shaping the pattern of community development, and in promoting physical activity.

## A.3 Sacramento County Zoning Code

The Sacramento County Zoning Code is the County'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.

## A.4 Community and Specific Plans

A community or specific plan is a detailed plan for the development of a particular area. Falling under the broader umbrella of the General Plan, these 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.

## A.5 Commercial Corridor Plans

A commercial corridor plan is a detailed plan for the development of a segment of a major thoroughfare. These plans provide standards for the types of uses permitted, development criteria (setbacks, heights, landscape, architecture, etc.), design guidelines, and circulation and infrastructure improvements. These plans are identified in the Zoning Code.

## A.6 Special Planning and Neighborhood Preservation Areas

Special Planning Areas (SPA) and Neighborhood Preservation Areas (NPA) are districts or neighborhoods where additional flexibility in uses and/or development standards beyond those contained in the Zoning Code is desirable due to unique characteristics of area. These areas are identified in the Zoning Code.

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

# Appendix B: Special Standards

## B.1 ADA Transitional Pedestrian Guidelines

The County is in the process of updating pedestrian facilities to respond to the American Disabilities Act (ADA). All new sidewalks, crosswalks, and buildings located in public rights-of-way need to comply with the Federal laws regarding accommodating persons with disabilities. The County has prepared guidelines that demonstrate how to design sidewalks and other facilities that support accessibility requirements.

## B.2 Disabled Access

### Title 24 and ADA

Disabled access for new and renovated development is governed by California's Title 24 (provides standards for disabled access, energy efficiency and seismic design) and the Americans with Disabilities Act (ADA) and the Americans with Disabilities Act's Accessibility Guidelines (ADAAG). Every project is required to be designed to provide access. This includes public infrastructure projects, site planning for private development, and building design.

# B.3 Universal Design

The Design Guidelines encourage design solutions for persons of all abilities through universal design concepts. Universal design is the process of ensuring that the built environment is accessible, understandable, and navigable to people with a wide range of abilities and conditions affecting one or more of the senses, motor skill, reach, range of motion, and/or general mobility. Universal design accommodates a wide range of individual preferences and abilities; communicates necessary information effectively
(regardless of ambient conditions or the user's sensory abilities); and can be approached, reached, manipulated, and used regardless of the individual's body size, posture, or mobility.

Universal access and design is encouraged in multifamily housing to benefit people of all ages and abilities by making all components of the built environment more usable and readily accessible by as many people as possible at little or no extra cost. Moreover, universal design must be aesthetically pleasing and functional for people with mobility, visual, hearing, and other impairments as well as those who have no significant disability.

Universal design is a higher standard than the standard required by the Americans with Disabilities Act. Universal design may exceed the minimum program requirements of the building codes. Universal design is best achieved through innovative design of building and spaces, rather than through prescriptive measures and should be considered from the earliest design stages.

# B.4 Stormwater Quality Design Principles

The County's Department of Water Resources has prepared development standards for new and redevelopment projects which require the use of stormwater quality control measures on most projects. The County has published the Guidance Manual for Onsite Stormwater Quality Control Measures that contain design criteria and guidelines for these measures, which are intended to reduce pollutants in urban runoff and attenuate the volume and rate of runoff discharged to the local stormwater drainage system and creeks and rivers. Since many of the measures will affect site grading, drainage and parking lot layout, project applicants should strive to integrate stormwater quality measures into their projects at the earliest possible phase of design. Early consideration allows for more effective and economical options possibly requiring less long-term maintenance. Also, many of the stormwater quality measures fulfill other ordinances.

# B.5 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

In recent years designers and architects have begun to recognize crime as a man-made hazard that can be resisted through quality design. The new design approach to crime prevention is known as "Crime Prevention Through Environmental Design" (CPTED). It is more far-reaching than dead-bolts on doors or locks on windows; it is the use of design to eliminate or reduce criminal behavior while at the same time encouraging people to "keep an eye out" for each other.

The following CPTED strategies can be applied through design guidelines to residential, commercial, industrial and mixed-use developments to help create safer, more livable communities.

## NATURAL SURVEILLANCE

The placement of physical features, activities, and people in a way that maximizes visibility is one concept directed toward keeping intruders easily observable, and therefore less likely to commit criminal acts. Features that maximize the visibility of people, parking areas, and building entrances are: unobstructed doors and windows, pedestrian-friendly sidewalks and streets, front porches, and appropriate nighttime lighting.

## TERRITORIAL REINFORCEMENT

Physical design can also create or extend a sphere of influence. Users are encouraged to develop a sense of territorial control while potential offenders, perceiving this control, are discouraged. This concept includes features that define property lines and distinguish private spaces from public spaces using landscape plantings, pavement designs, gateway treatments, signage, and open ("CPTED") fences.

## NATURAL ACCESS CONTROL

Natural access control is another design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating a perception of risk for offenders. People are physically guided through a space by the strategic design of streets, sidewalks, building entrances, landscaping, and neighborhood gateways. Design elements are very useful tools to clearly indicate public routes and discourage access to private areas and structural elements.

### Maintenance

Care and maintenance allow for the continued use of a space for its intended purpose. Deterioration and blight indicate less concern and control by the intended users of a site and indicate a greater tolerance of disorder. Proper maintenance prevents reduced visibility due to plant overgrowth and obstructed or inoperative lighting, while serving as an additional expression of territoriality and ownership. Inappropriate maintenance, such as over pruning shrubs, can prevent landscape elements from achieving desired CPTED effects. Communication of design intent to maintenance staff is especially important for CPTED related ideas to be effective.

## B.6 Sample HOA Conditions

The following condition is a recommended standard condition to be applied to small lot and townhome residential projects. The intent is to ensure that a HOA is formed in all cases, and that Covenants, Conditions and Restrictions (CC&Rs) be recorded that outline the respective duties of the HOA and individual property owners. There are many different product types, and this condition may be modified for individual circumstances. Any provisions of State Law pertaining to HOAs would supercede any portion of this condition. For small lot detached products, this condition does require that the HOA maintain the residences; it would require that there be "step-in" provisions for enforcement by the HOA if individual property owners do not meet the CC&R standard.

1. Establish a Homeowners' Association and record Declaration of CC&Rs that clearly establishes the respective maintenance and repair responsibilities of the Association and the individual residence owners, including, but not limited to:

- Front yard landscape maintenance by the Association for all residential lots;
- Maintenance by the Association of all private streets and alleys;
- Landscaping and general maintenance by the Association of project common areas and paseos;
- Maintenance, paint, repair, and eventual replacement of all other residential dwelling improvements including exterior surfaces by the residence owners in accordance with the maintenance manual provided by the developer to initial purchasers;

- » Provisions relating to the storage and disposal of trash including provisions requiring trash containers to be maintained in garages or in the residence except when the container is at the curb on refuse collection days and provisions relating to the placement of materials during the Neighborhood Cleanup Program;
- » Provisions prohibiting the conversion of garage bays to uses such as workshops or storage that prevent the parking of vehicles in the garage.

The following condition is intended to address situations where the primary make-up of property owners are investors who may not be completely engaged in property maintenance and long-term stability. This condition does not require that units be owner-occupied over the life of the unit.

2. The Board of Directors of the HOA shall be comprised of owner occupants. Initial sale of homes for ownership by investors/absentee owners of the entire subdivision shall be limited to no more than ten percent (10%) of the residential units in the subdivision.

The following condition is intended to more specifically address placement of garbage containers, especially in cases where there are dead-end private streets.

3. Garbage containers will be serviced on the street of a resident's address. On a private street that is not a through streets, all containers must be placed on one side of the street as designated by the County in order for service to be performed. It will be necessary to have CC&Rs that prohibit parking on service day for these streets. During Neighborhood Clean-up Programs, all materials will need to be placed on the main street that crosses the street which is not a through street. No material will be serviced on a private street which is not a through street. All owners on private streets and the HOA will need to sign a Release of Liability for any damage that may occur while the County provides service to those private streets.

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# Appendix C: Case Studies and Checklists

This chapter uses case study projects to demonstrate how the Design Guidelines can make projects more responsive to their context, result in site planning that connects new development to the surrounding neighborhood, and helps to improve the design of buildings.

This chapter includes four case studies:

A-1 Infill Mixed-use
A-2 Shopping Center Renovation
A-3 Office Development
A-4 Fast Food Drive-Through Site

## Meeting Community Design Objectives

The case studies anticipate the types of projects that will become increasingly important investments in Sacramento County's communities. They reflect four important design principles:

1. Projects have to be better connected to adjacent neighborhoods and to each other.
2. Reinvestment in existing commercial districts, in terms of renovation and redevelopment of older centers, needs to reflect the same design and site planning expectations as new projects.
3. Thoughtful design and site planning of franchise tenants can meet both community design and business objectives.
4. Good site planning can lead to more social and environmentally friendly places.

## Case Study Organization

The case studies are organized to reflect how projects will be evaluated in the design review process. They reference the sections of the Guidelines that pertain to the type of design issues being addressed.

**SITE CONTEXT:**
There is a brief overview of key features of the site surroundings and context.

**SITE PLAN FEATURES:**
Site planning features are summarized. These include how the site is connected to the community, its contribution to community and project design objectives, and how the project creates social and pedestrian-friendly places.

**ARCHITECTURAL FEATURES:**
This includes massing and architectural concepts that support community design and project image objectives.

# Case Study A-1: Mixed-Use Infill

This case study illustrates how the design guidelines would apply to a 3.9 acre infill site. The case study demonstrates how commercial and residential uses can be co-located resulting in a social and pedestrian friendly place and neighborhood destination.

**CONTEXT:** The site is located on the corner of a commercial corridor and residential neighborhood street next to a community park.

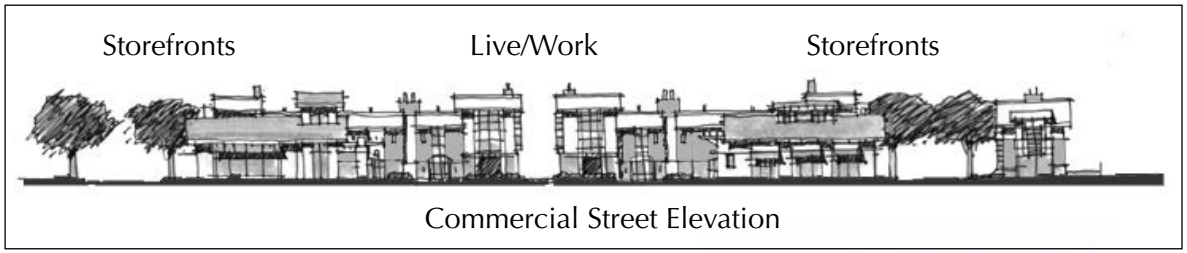
**SITE PLAN FEATURES:** The site plan provides walking edges on both the commercial and residential street. Commercial storefront buildings share parking and driveways. Live-work units are adjacent to the commercial uses and the project's common open space. Placing the housing at the back of the site provides "eyes-on-the-park", making it safer and a visual amenity for residents.

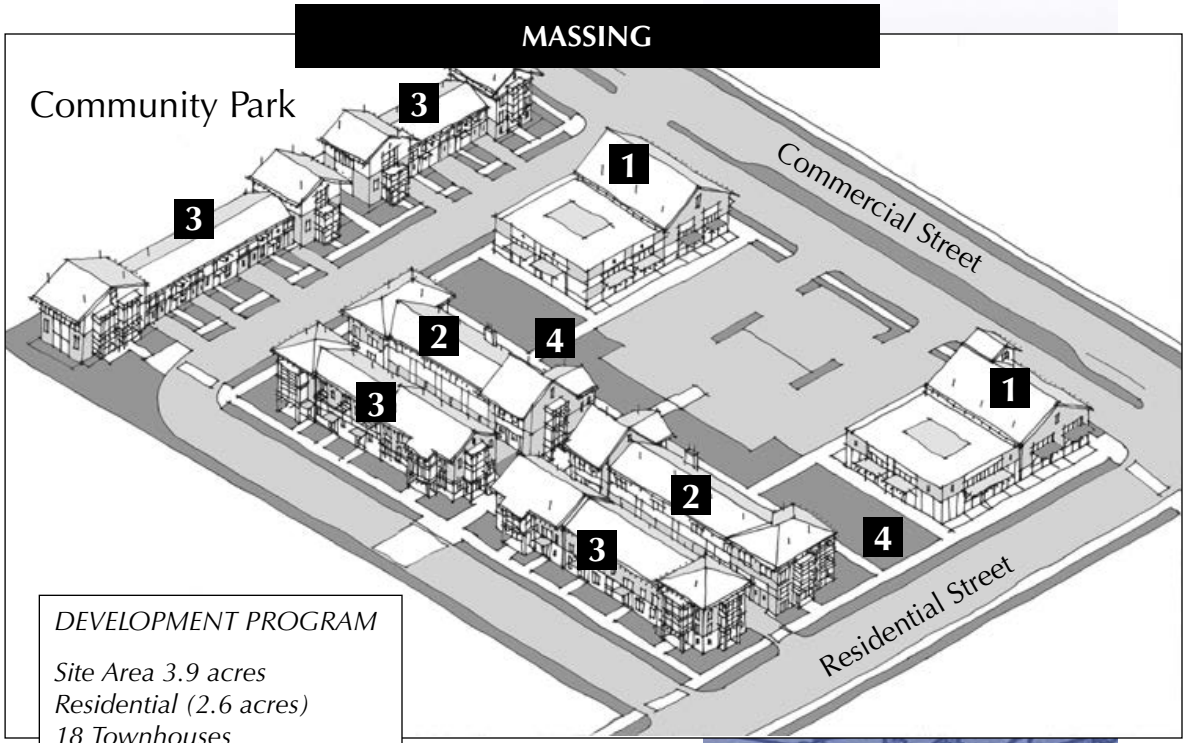
**ARCHITECTURAL FEATURES:** The building massing uses variations in 2 and 3-story height and roof shape to frame passageways and street edges. Architectural use of balcony, porch and bay window elements add variety and scale to the townhouse buildings. The scale and transparency of storefronts adds to the street's pedestrian safety, access, comfort and interest.

*This is a view from the sidewalk of a storefront building. Live-work townhouses and common open space can be seen to the right.*

The case study massing diagram shows what the project would look like facing the community park. The park would be an amenity for the development. The townhouses would provide "eyes-on-the-park" security.

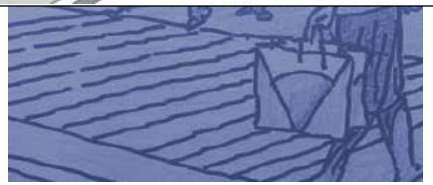
1. *Commercial Storefronts*
2. *Live-Work*
3. *Townhouses*
4. *Open Space*

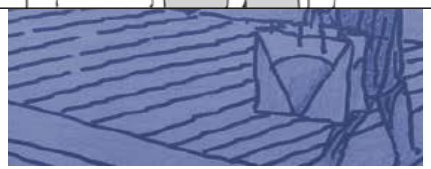




*DEVELOPMENT PROGRAM*

*Site Area 3.9 acres*
*Residential (2.6 acres)*
*18 Townhouses*
*10 Live-work Units*
*Commercial (1.3 acres)*
*17,000 SF*
*68 parking spaces*



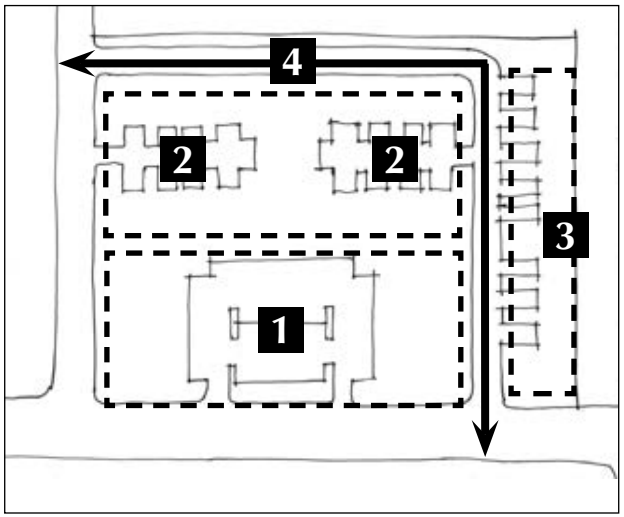



*SITE PLAN*

1. *Commercial Storefronts*
2. *Live-Work*
3. *Townhouses*
4. *Open Space*
5. *Existing Commercial Office*

*PARKING DIAGRAM*

1. *Commercial Parking*
2. *Residential Parking Courts*
3. *Residential Driveways*
4. *On-street Visitor Parking*



# Case Study A-2: Shopping Center Renovation

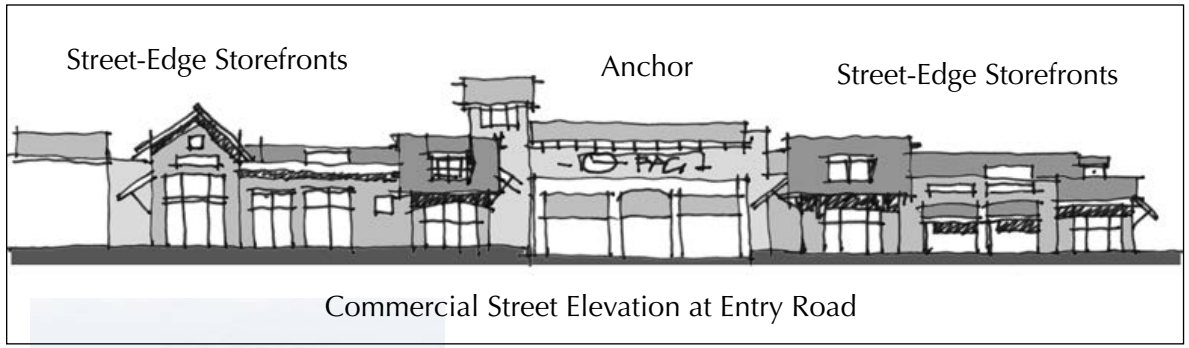
This case study illustrates how the design guidelines would apply to renovation of an existing 12-acre shopping center. The case study demonstrates how redevelopment of aging commercial pad buildings and renovation of anchor stores can improve the image and viability of older shopping centers.

**CONTEXT:** The site is located on the corner of two commercial corridors and is adjacent to a residential neighborhood.

**SITE PLAN FEATURES:** The site plan provides walking edges along the commercial streets and connects buildings with tree-lined sidewalks and driveways. Site entries are reinforced with the design and orientation of buildings and landscaping. Parking areas are defined by landscaping and walkways.

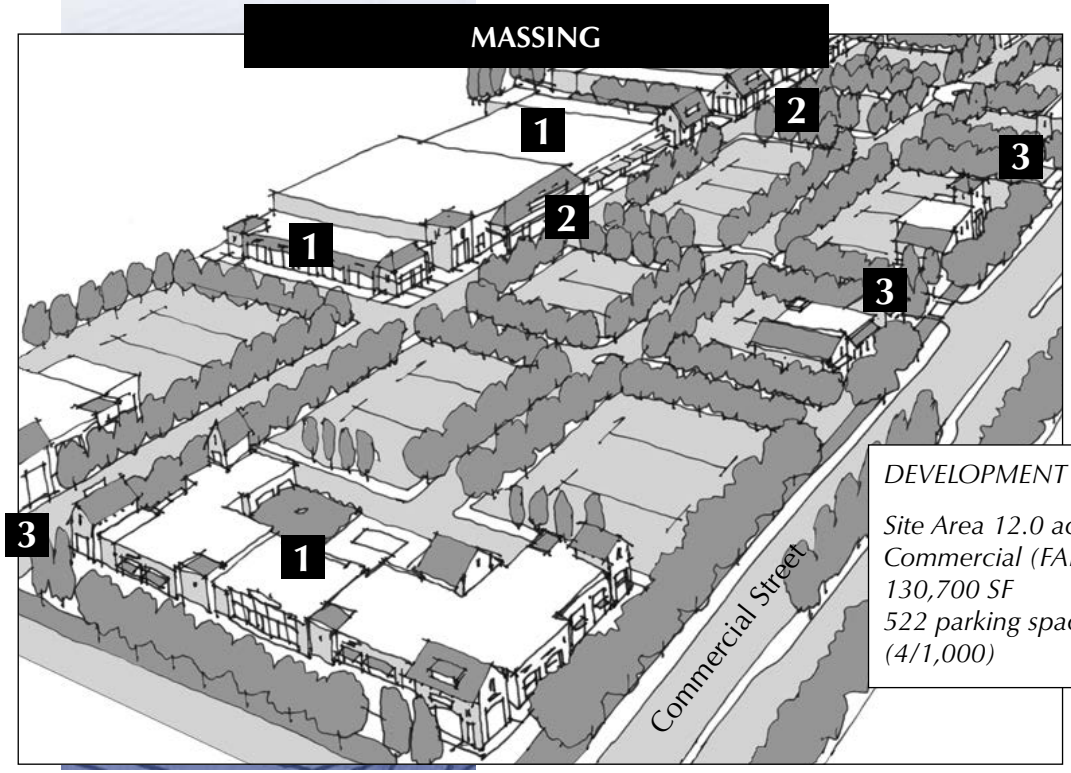
**ARCHITECTURAL FEATURES:** The building massing supports overall urban design concepts for the district and the project including commercial street gateways, site entries and edges. Each building provides a walking edge that connects to an overall system of storefronts. Lighting and signage concepts support the overall identity and design themes for the redevelopment of the center.

*This is a view from the sidewalk across the street from the shopping center's main entry. Storefront buildings frame the entry drive.*




*The case study massing diagram shows what the project would look like with street-oriented pad buildings, landscaped driveways, and expressive massing.*

1. *Commercial Storefronts*
2. *Anchor Stores*
3. *Site Entries*



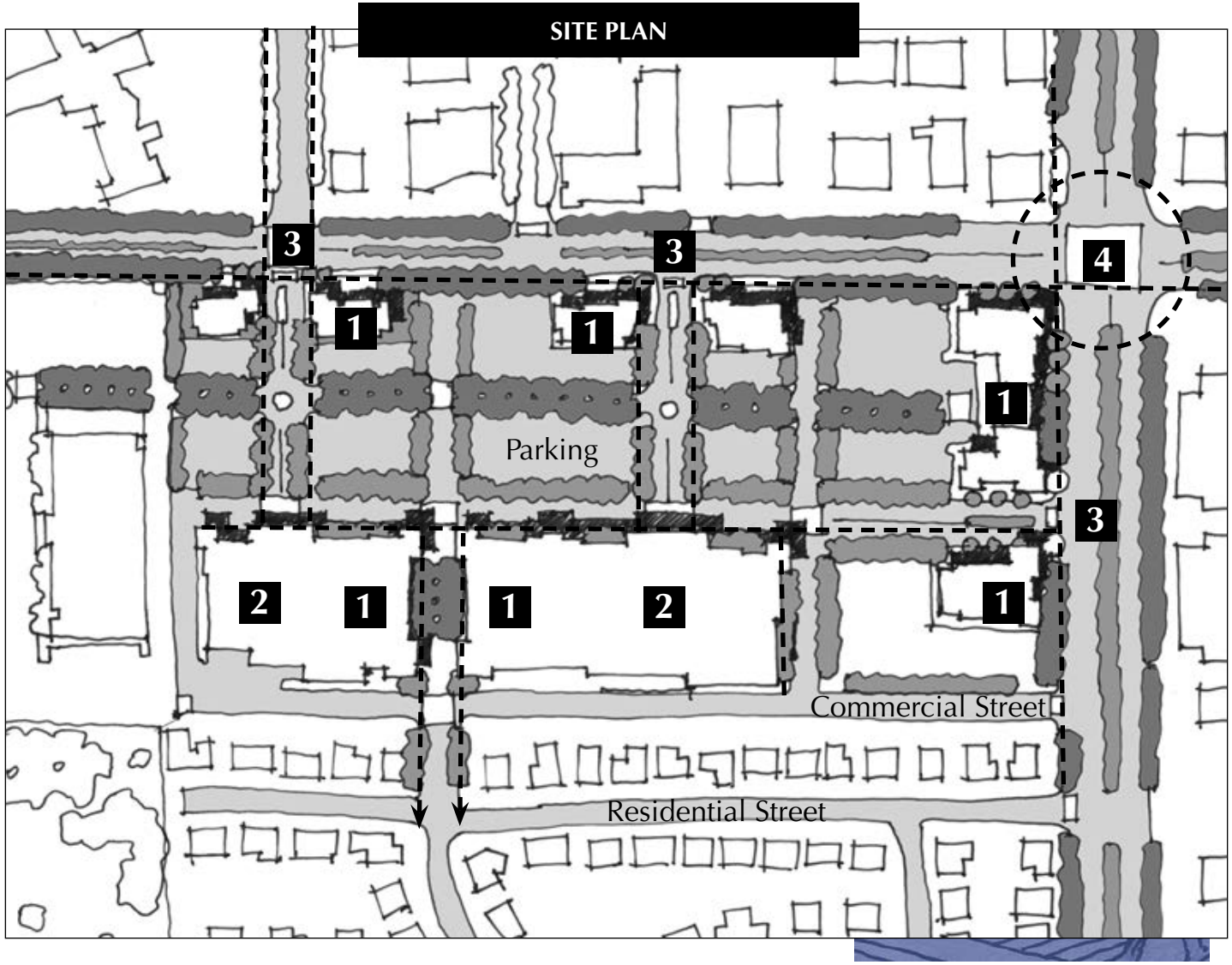

*DEVELOPMENT PROGRAM*

*Site Area 12.0 acres*
*Commercial (FAR 0.25)*
*130,700 SF*
*522 parking spaces*
*(4/1,000)*

*SITE PLAN*

1. *Storefronts*
2. *Anchor Stores*
3. *Site Entries*
4. *Commercial District Gateway*

*Primary Walking Route*



# Case Study A-3: Office Development

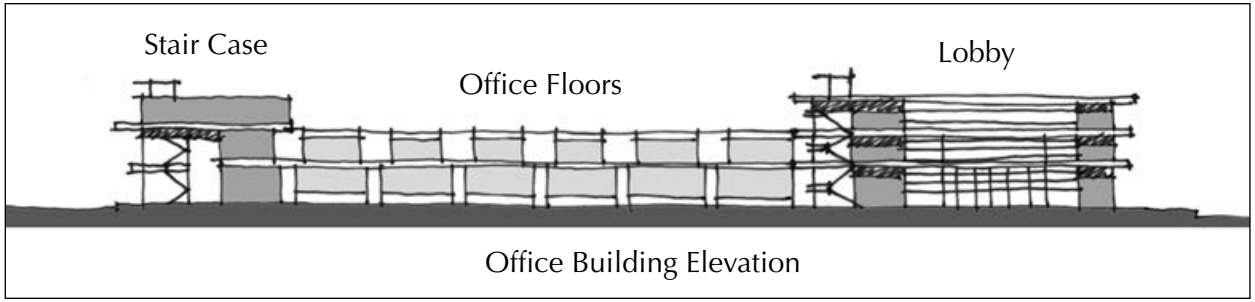
This case study illustrates how the design guidelines would apply to a 7.3 acre office site. The case study demonstrates how commercial office projects can create public spaces, connect to the community and respond to different edge conditions.

**CONTEXT:** The site is located in an area with commercial, residential and institutional uses. The site also has freeway visibility.

**SITE PLAN FEATURES:** The site plan groups building lobbies around a plaza space. The plaza includes amenities for employees, such as outdoor seating areas and public art. The plaza also connects to a trail along a canal linking it to the surrounding community. Offices have views of the trail and landscape surrounding the buildings.

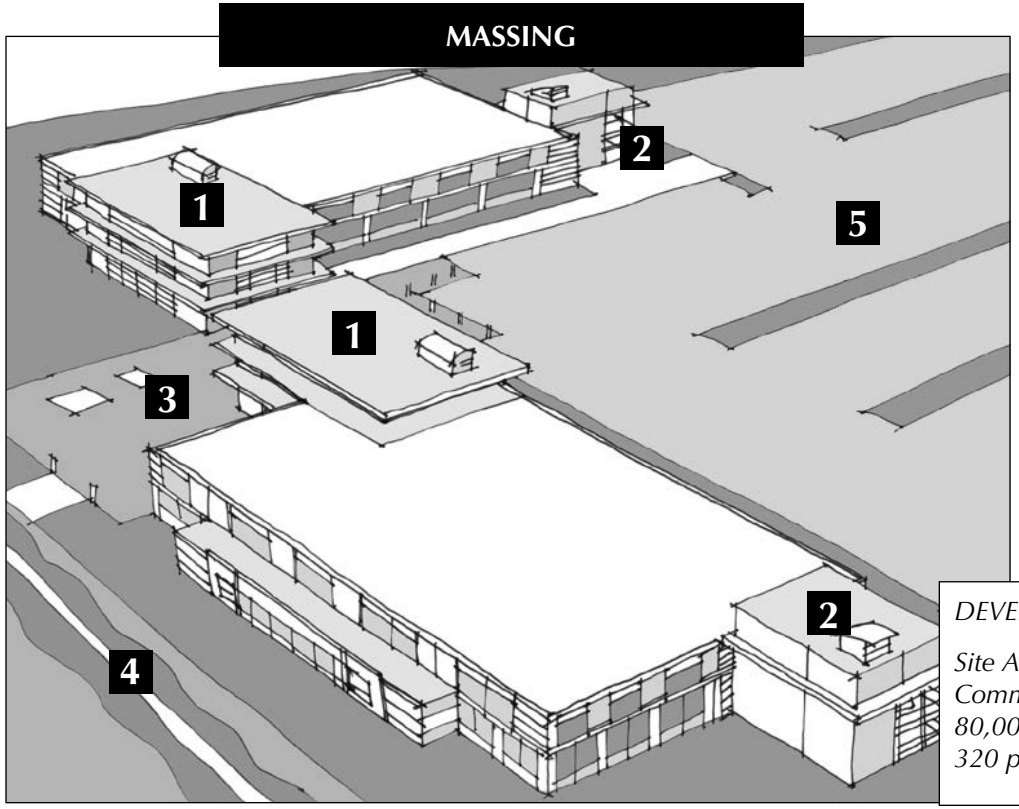
**ARCHITECTURAL FEATURES:** The two-story building design demonstrates how a tilt-up panel system can be made more interesting by creating variation in the system panels and adding greater emphasis on the design of lobbies and stairs. The three-story lobbies are transparent and include projected sun shades. Pulling the stairs outside the office building provides another design opportunity.

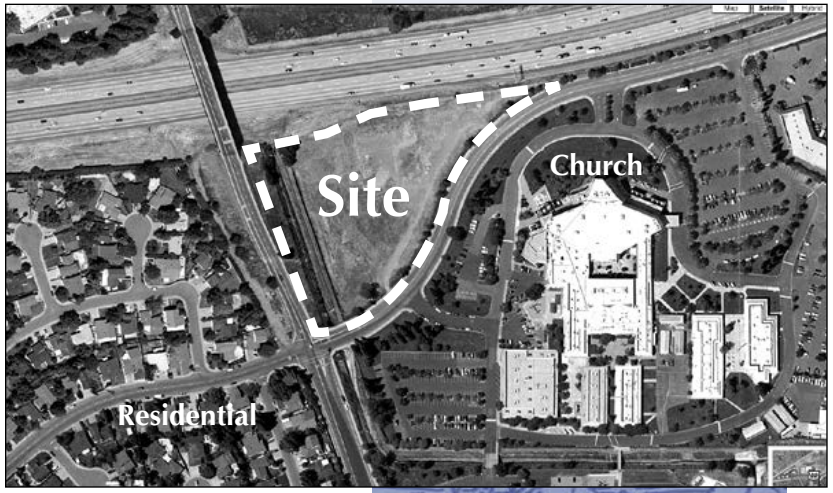
*This is a view from the parking lot of the lobbies and plaza space. The plaza's public art, seating areas and trail-edge landscaping are seen beyond.*




*The case study massing diagram shows how the lobbies frame an outdoor public space that is connected to the waterway trail.*

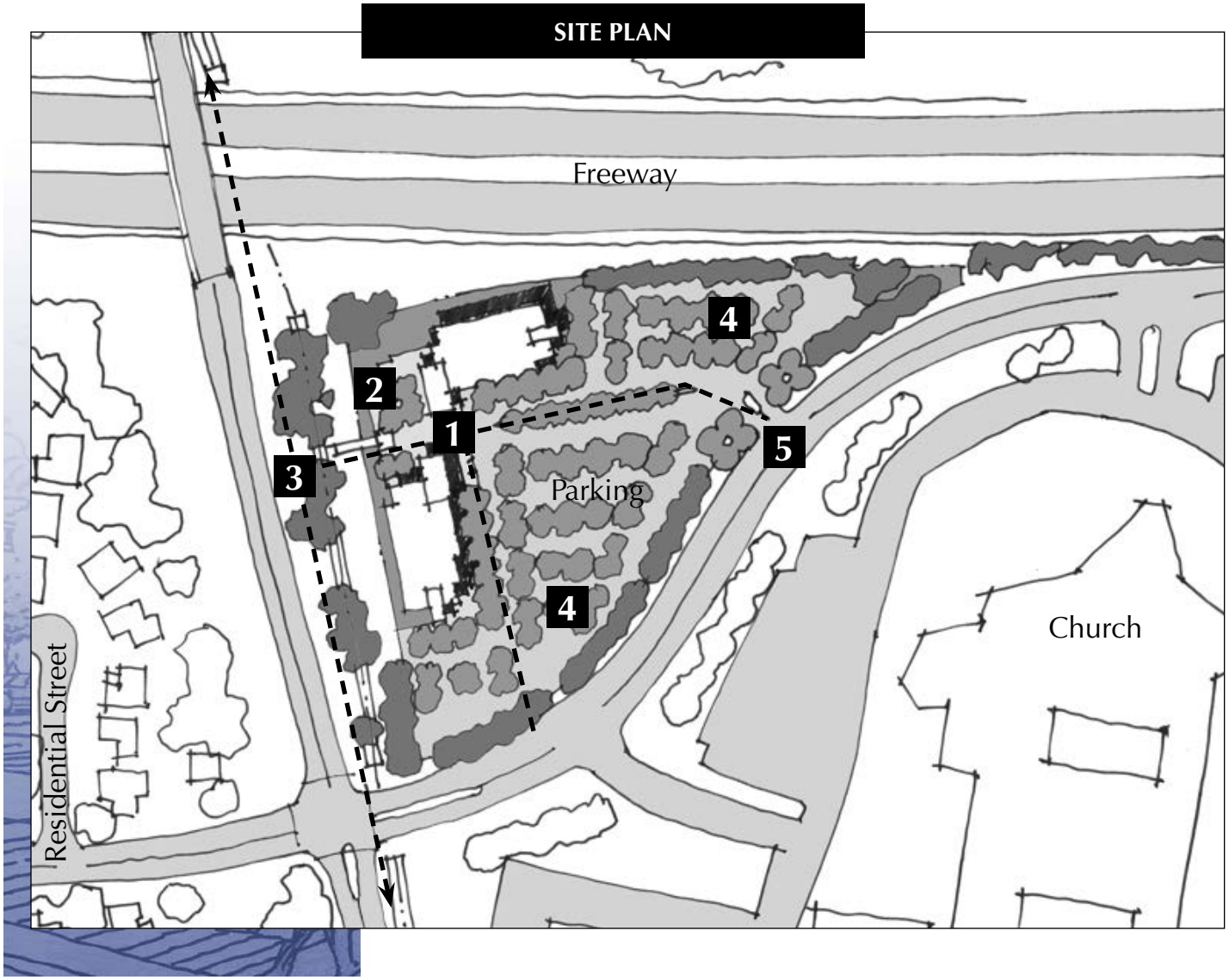
1. *Lobbies*
2. *Stairwell*
3. *Plaza and Public Art*
4. *Waterway Trail*
5. *Parking Lots*




*DEVELOPMENT PROGRAM*

*Site Area 7.3 acres*
*Commercial Office (0.25 FAR)*
*80,000 SF*
*320 parking spaces*




*SITE PLAN*

1. *Lobbies*
2. *Plaza and Public Art*
3. *Waterway Trail*
4. *Parking Lots*
5. *Site Entry*

*Primary Walking Route*

# Case Study A-4: Fast Food Drive-Through

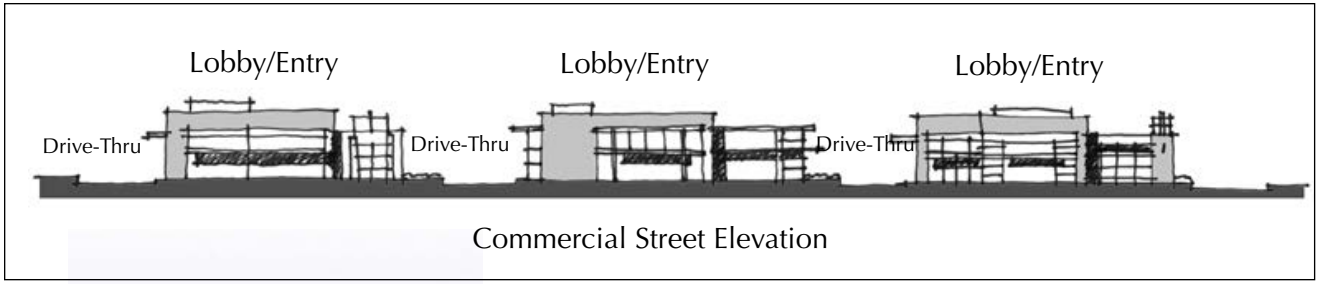
This case study illustrates how the design guidelines would apply to a 1.8-acre fast food site with three pads. The case study demonstrates the benefits of shared parking and connected walkways. The result is a small social and friendly dining district.

**CONTEXT:** The site is located near a major commercial intersection along a commercial street. Residential uses are located next to the site.

**SITE PLAN FEATURES:** The site plan provides walking edges along the front of the restaurant pads and outdoor seating areas. Parking is connected with a shared driveway. Drive-up windows are located on the side of each building. Building entries are located where they can be seen and accessed from the sidewalk and parking areas. Walkways connect to adjacent sites.

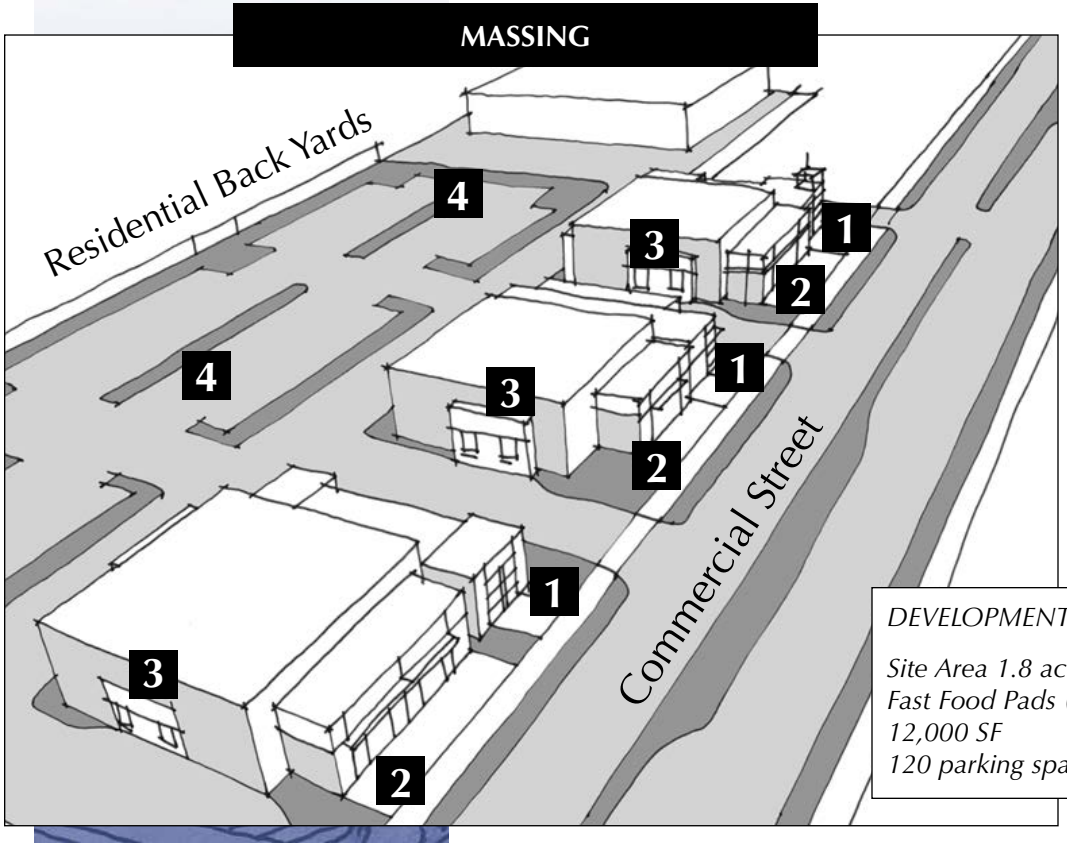
**ARCHITECTURAL FEATURES:** The building massing wraps the food preparation and service areas with transparent public lobbies and dining. The dining areas flow out onto outdoor seating areas along the sidewalk. Lobbies, dining elements and lighting make the cluster of businesses an attractive evening destination.

*This is a view from the sidewalk of the outdoor seating areas and lobbies. A planting strip and canopy street trees provide shade.*




*The case study massing diagram shows three fast food pads with drive-up windows. The buildings' lobbies face the street and include outdoor eating areas along the sidewalk. Shared parking is in the rear of the site.*

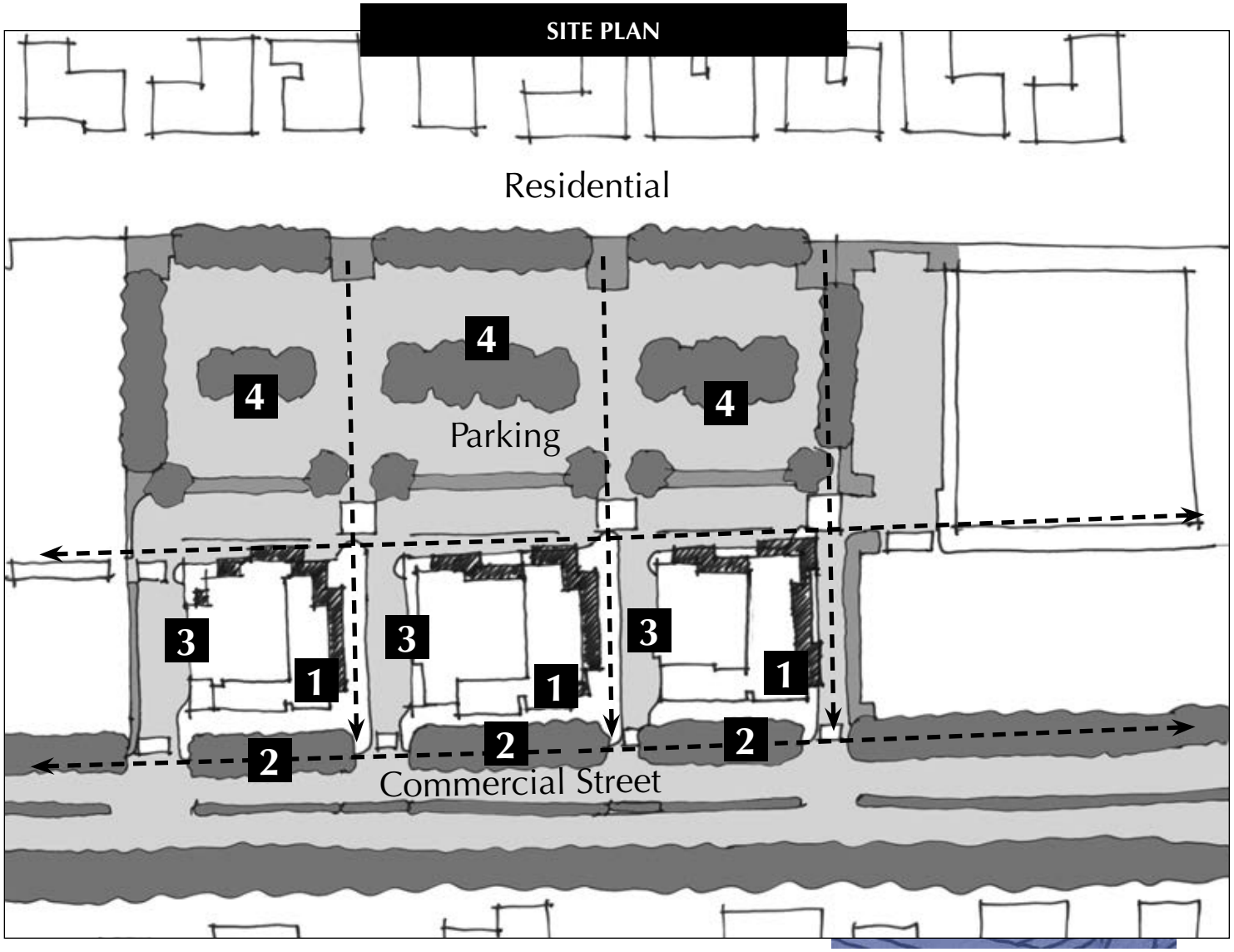
1. *Lobbies*
2. *Outdoor Seating*
3. *Drive-up Windows*
4. *Shared Parking*





*DEVELOPMENT PROGRAM*

*Site Area 1.8 acres*
*Fast Food Pads (3 pads at 4,000 SF)*
*12,000 SF*
*120 parking spaces*




*SITE PLAN*

1. *Lobbies*
2. *Outdoor Seating*
3. *Drive-through Windows*
4. *Shared Parking*

*Primary Walking Route*

The checklist below is intended to be a summary of the issues addressed by the principles. It is not meant to be a regulatory device or a substitute for the language and examples found in the principles themselves. Rather, it is a tool for evaluating the success of a given project in meeting the intent of the design principles.

**TABLE C-1**: SAMPLE DESIGN REVIEW CHECKLIST

| CRITERIA | YES | NO | N/A | COMMENTS |
|---|---|---|---|---|
| **SITE DESIGN** | | | | |
| Does site planning and design address the potential impacts on existing and planned adjacent uses?<br><br>Does the project design address traffic, parking, circulation and safety issues, and security? | | | | |
| **CIRCULATION** | | | | |
| Is the visual prominence of vehicles minimized through siting and screening views from adjacent roadways and uses?<br><br>Are parking facilities designed to be compatible with building design? | | | | |

**TABLE C-1**: SAMPLE DESIGN REVIEW CHECKLIST (CONT.)

| CRITERIA | YES | NO | N/A | COMMENTS |
|---|---|---|---|---|
| **CIRCULATION** | | | | |
| Does the siting and design of driveways and entry-ways minimize the impact of automobile parking and driveways on the pedestrian environment, adjacent properties and bicycle safety?<br><br>Is direct, adequate, and safe pedestrian ingress and egress provided to, from and within the site? | | | | |
| **COMMON AND PRIVATE OPEN SPACE** | | | | |
| Does the project provide opportunities for usable, attractive, and integrated open space?<br><br>Do proposed planted areas enhance the appearance of structures, define site functions, and screen undesirable views?<br><br>Are open space areas linked among adjacent developments, where opportunities allow? | | | | |
| **LIGHTING AND SECURITY** | | | | |
| Is project lighting at an appropriate scale and compatible in design to the main structure? | | | | |

**TABLE C-1**: SAMPLE DESIGN REVIEW CHECKLIST (CONT.)

| CRITERIA | YES | NO | N/A | COMMENTS |
|---|---|---|---|---|
| **LIGHTING AND SECURITY** | | | | |
| Does the lighting of the project respect the adjacent residential development neighborhood through attention to scale, views, and excess lighting? | | | | |
| **SERVICES AND UTILITIES** | | | | |
| Are amenities and accessory structures centrally located and easily accessible by residents? | | | | |
| Are service elements and infrastructure such as trash dumpsters, loading docks and mechanical equipment appropriately screened and/or located away from street views? | | | | |
| **FENCING** | | | | |
| Is the design of proposed fencing and walls compatible with the overall design of the project? | | | | |
| Does fencing located behind setback areas increase the sense of isolation from the rest of the community? | | | | |

**TABLE C-1**: SAMPLE DESIGN REVIEW CHECKLIST (CONT.)

| CRITERIA | YES | NO | N/A | COMMENTS |
|---|---|---|---|---|
| **SCALE / MASSING** | | | | |
| Is the project compatible with its surroundings with regard to building scale, mass, setbacks, and articulation? | | | | |
| **BUILDING DESIGN** | | | | |
| Is the project compatible with the scale and character of the adjacent residential neighborhood?<br><br>Does the project design complement the scale and character of adjacent properties?<br><br>Does the project respect and visually improve the predominant characteristics of height, massing, setbacks, and materials of the existing developments in the project area?<br><br>Does the project incorporate variety and distinctiveness in design? | | | | |
| **ENERGY CONSERVATION** | | | | |
| Does the project incorporate site planning and building design features that help reduce energy conservation? | | | | |

# Appendix D: Active Design

## Active Design for a Healthy Sacramento County

### Active Design Guidance: Purpose

*Active design strategies are identified by this icon.*

The purpose of this chapter is to promote quality design that enhances community aesthetics, reflects the community character and reinforces the community's and County General Plan goals of sustainable design. When these guidelines are properly applied to projects, we achieve quality design and we also improve the public's health, safety and livability. There is a need to improve the health of our communities. Application of the Active Design strategies will help to achieve these goals, provide overall planning and design principles, and guidelines for commercial districts.

Decisions on how and where to build homes, businesses, shopping centers, parks and schools all have significant impacts on human health. Mixed land uses (job/housing/retail proximity), densities, community connectivity, and active transportation (walking and bicycling) choices can all promote and increase walking and physical activity. By incorporating Active Design strategies into the built environment, physical activity and improved health can be achieved.

Active Design is not only healthy, it is also sustainable design. While enhancing the public's health, it also reinforces the goals of environmental sustainability by reducing energy consumption and greenhouse gas emissions, improving air and water quality, and preserving the natural environment. These strategies and guidelines are grounded in the data that the design of the built environment can have a crucial and positive influence on improving public health and is an essential tool in reversing the most pressing public health problems of our time.

## The Chronic Disease and Obesity Epidemic: Health Issues

For the last few decades, environmental and public health professionals have made great strides in helping to build and maintain a healthy society. Whereas infectious diseases were the gravest health threats of an earlier era, the biggest killers of our time are non-infectious, chronic diseases such as heart disease and stroke, cancer, chronic lung disease and diabetes, for which the leading risk factors are obesity, physical inactivity, poor diets and smoking. [1, 2]

Over the last two decades, obesity has become epidemic in California and the United States. Overweight/obesity, defined by a Body Mass Index or BMI over 25, now affects two-thirds of the adult population in California and Sacramento County. About one in three California children (31%), ages 10-17, is overweight or obese, and 43 percent of elementary school children in Sacramento County are overweight or obese. [3] (BMI is a measure of body fat that classifies adults into four categories: underweight, normal weight, overweight and obese.)

Obese children are ten times more likely to be obese adults than normal-weight children. The underlying causes of obesity — physical inactivity and a surplus of dietary calories — are second only to tobacco as the major causes of premature death.

Obesity increases the chances of developing type 2 diabetes, [4] which has more than doubled in recent years and leads to complications such as blindness, limb amputations, cardiovascular disease, and kidney failure. Type 2 diabetes is increasingly found among children, leading to medical complications in early adulthood, with serious consequences for quality of life and health care costs.

1 2010 California Obesity Prevention Plan: A Vision for Tomorrow, Strategic Actions for Today. Sacramento, CA. California Department of Public Health, California Obesity Prevention Program, 2010.

2 Mokdad AH, et al. Actual causes of death in the United States, 2000. Journal of the American Medical Association. 2004;291(10): p. 1238–1245.

3 Babey SH, Wolstein J, Diamant AL, Bloom A, Goldstein H. A Patchwork of Progress: Changes in Overweight and Obesity Among California 5th, 7th-, and 9th-Graders, 2005-2010. UCLA Center for Health Policy Research and California Center for Public Health Advocacy, 2011.

4 Narayan KM, et al. Lifetime risk for diabetes mellitus in the United States. Journal of the American Medical Association. 2003; 290(14): p. 1884–90.

The California Health Interview Survey [5] showed that 63 percent of Sacramento County residents fail to meet recommended guidelines for physical activity — 30 minutes a day, 5 days a week — putting them at high risk for being overweight and obese. According to the CDC only about 20 percent of U.S. adults are meeting both the aerobic and muscle strengthening components of the federal government's physical activity recommendations.

Chronic disease and obesity exact a toll not only on our health but also on our economy in the form of rising health care and disability costs and declining productivity and workforce availability. In 2000, the total direct and indirect health care costs attributable to obesity in the United States were estimated to be $117 billion, [6] which is equal to each U.S. resident in the year 2000 paying $415 each. In 2006, the California Center for Public Health Advocacy estimated that the health care costs related to obesity in California were close to $41 billion. [7] More far-reaching economic consequences include fuel expenses and costs from insurance, disability, absenteeism, and decreased productivity for the business sector. [8] This economic burden is only anticipated to grow. If the current rate of increase in obesity continues, the total health care costs attributable to obesity are anticipated to double every decade, reaching $860 to $960 billion by 2030.

## LACK OF PHYSICAL ACTIVITY AND A SUPPORTIVE BUILT ENVIRONMENT: CONNECTING DESIGN AND HEALTH

Part of the reason for today's lower rates of physical activity compared to the past is the changed built environment. Over the past 60 years, development patterns have been focused on the ease and speed of movement for automobiles and the dramatic separation of uses. Neighborhoods and communities are built with large distances between homes, jobs, schools, and shopping centers, forcing people to use vehicles for everyday trips. As a result, people use cars today for nearly every trip from home, even when the distances they need to travel are short. In fact, according to the National Household Travel Survey 28% of all trips

5 California Health Interview Survey: http://healthpolicy.ucla.edu/chis/Pages/default.aspx

6 U .S. Department of Health and Human Services. The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity. 2001.

7 Chenoweth & Associates, Inc. The Economic Costs of Overweight, Obesity, and Physical Inactivity Among California Adults. 2006. California Center for Public Health Advocacy. 2009.

8 Thompson D, et al. Estimated economic costs of obesity to U.S. business. American Journal of Health Promotion.1998;13(2): p. 120–127.

today are less than one mile and yet 72% of those trips are taken by automobile. The design of our communities encourages this dependence on cars, which in turn leads to a number of health hazards in the built environment. Increased auto use contributes to elevated pollution levels, and fast-moving vehicles make the roads hazardous for the pedestrians and bicyclists that choose active transportation.

In recent years, physical activity levels at work, at home, and from transportation have decreased. The design of our buildings, streets, neighborhoods, and communities often makes physical activity difficult to achieve. Physical activity, once part of our normal lives, has been designed out of daily routines. [9] Sedentary jobs have taken the place of manual labor, cars have replaced walking or bicycling, elevators and escalators have supplanted stair climbing, and televisions, computers, social media and video games have displaced active leisure pursuits, especially among children.

The biggest opportunity for improving public health may lie in changing these daily lifestyle norms. Community design that encourages the replacement of automobile use with walking and bicycling not only increases physical activity and ensures pedestrian safety, but also addresses numerous other health issues. The less we drive, the fewer collisions we have, resulting in fewer traffic injuries and deaths. As automobile use decreases, vehicle emissions decline, resulting in cleaner air. Chance interactions on the street lead to stronger social connections and mental wellness. [10]

Well-designed public transit systems and access to transit can also help to increase physical activity levels and community health. Americans who use transit spend an average of 19 minutes a day walking between transit stops and destinations; and 29% meet the U.S. Surgeon General's recommendation of at least 30 minutes of physical activity per day by walking to and from transit. [11, 12]

9 Brownson RC, Boehmer TK, Luke DA. Declining rates of physical activity in the United States: what are the contributors? Annual Review of Public Health. 2005;26:p. 421–443.

10 Leyden, K. M. Social capital and the built environment: the importance of walkable neighborhoods. American Journal of Public Health. 2003; 93(9): p. 1546-51

11 Besser LM, Dannenberg AL. Walking to Public Transit: Steps to Help Meet Physical Activity Requirements. American Journal of Preventive Medicine 2005; 29(4) 273-280.

12 Wener, RE and Evans GW. A morning stroll: levels of physical activity in car and mass transit commuting. Environment and Behavior. 2007; 39: p. 1–13.

Community design can also address concerns over public safety and fear of assault, which are reasons given by people for choosing not to walk, use public transit, use recreational facilities or allow their children to play outside or walk to school. While many variables influence violence and crime in communities, aspects of the physical, built environment can also be designed to discourage crime. Appropriately placed landscaping, lighting, windows, porches, signs and more all contribute to a safer built environment. Crime Prevention Through Environmental Design (CPTED) provides additional design guidance to create safer communities.

## CREATING AN ACTIVE SACRAMENTO: THE KEY ISSUE

The design of a neighborhood influences how its residents will live. Planners, designers and architects can foster physical activity by designing spaces and streets that encourage walking, bicycling, and other forms of active transportation and recreation. A diverse mix of land uses, co-location of food markets and other retail, green belts and parks, along with a well-connected street system, and a good public transit system all facilitate increasing physical activity among residents. Narrow, quiet, well-shaded streets can encourage walking and bicycling among young and old alike. Streets that are safe for all will encourage more active use.

It is important to recognize that Sacramento County is very diverse and that the planning and design techniques that follow may apply differently depending on the context. In general, the more urban the context, the easier it will be to create these active communities since urban areas typically provide a well-connected network of streets with sidewalks and nearby destination. However, many of these concepts can also work well in suburban areas if careful attention is given to the layout of streets, parks, trails and commercial areas. In rural parts of the County, attention needs to be paid to providing places for people to walk or ride a bicycle either on the shoulder of roads or on separated trail networks.

It is also important to note that the design criteria that support active lifestyles discussed below depend on one another to have the most impact. Creating a compact, mixed use community that lacks good connectivity or a neighborhood with great streets but no nearby destinations will not support active lifestyles as well as a community that brings together all these key elements.

## Active Design Strategies

### Compact, Mixed-Use Communities

People are more likely to meet recommended levels of moderate physical activity if they can incorporate such activity into their daily routines. This means people are choosing to walk, bike or take transit to reach daily destinations (i.e., work, school, and home) rather than driving. Therefore, creating environments where walking and biking is the easy choice means providing a greater mix of destinations located closer together. As a general rule of thumb, people are reasonably willing to walk 5 – 15 minutes (approximately ¼ to ¾ mile) and are more likely to consider riding a bike for trips between 1/2 to 3 miles. Research has shown that residents living in mixed-use, compact communities are four times more likely to walk for trips under 1 mile in length. [13]

Compact, mixed-use communities also increase the accessibility of transit by placing more "customers" within proximity of transit stops. It is important to note that not all areas in Sacramento County are currently served by bus or light rail. Therefore, building "transit-ready" communities that are compact, walkable, and have a mix of uses will help ensure the success of future transit expansion. Access to public transportation is linked to increased physical activity, since transit use typically involves walking or bicycling to a bus or light rail stop. [14] Transit riders tend to walk 19 minutes a day, which is three times the amount of the average American. Commuting by transit rather than the automobile has been shown to increase as residential density increases, especially in neighborhoods designed around transit stations. [15]

*Uses can be mixed vertically or horizontally. The first photo shows a mixed use project in Davis, CA, with apartments over a restaurant. The second shows a shopping center in Salinas, CA, where housing has been built next to a supermarket. (Photos: Local Government Commission)*


13 L. Frank et al., Linking Objectively Measured Physical Activity with Measured Urban Form: Findings From SMARTRAQ, American Journal of Preventive Medicine, at 117-1255 (February 2005).

14 Ewing R. Pedestrian- and Transit-Friendly Design. Washington, DC : Urban Land Institute/American Planning Association; 2009.

15 2010 California Obesity Prevention Plan: A Vision for Tomorrow, Strategic Actions for Today, Sacramento (CA): California Department of Public Health, California Obesity Prevention Program, 2010.

Communities designed to provide greater opportunity for transit use, walking or bicycling can also help improve opportunities for physical activity among low-income people. Access to fitness facilities is more prevalent among certain groups in the population — typically, individuals with higher levels of education and income. However, when walking and cycling as part of transportation are considered, socioeconomic discrepancies in physical activity are reduced. [16] In addition, those that live in compact, mixed-use communities are found to drive less or not own a car at all, which are significant benefits to those with restricted incomes.

Compact, mixed-use communities are especially important for the health and vitality of seniors. Currently, one out of five seniors does not drive. Research has found that individuals aged 65 and over who live closer to shops and services are more likely to walk and use public transportation, and take more total trips outside the home. [17, 18] By 2030, it is projected that 25% of the adult population in the greater Sacramento region will be over the age of 65. The land use patterns, housing options, and mobility options we currently have, and will be developing in the coming years, will play a significant role in affecting — for better or for worse — the growing senior population's ability to remain active, independent, and engaged with family, friends, and community.

Choosing to walk or bike depends on more than just distance and proximity but also sense of safety, comfort, topography, and overall aesthetics.

16 Berrigan D, Troiano RP , McNeel T,DiSogra C, Ballard-Barbash R. Active transportation increases adherence to activity recommendations. American Journal of Preventive Medicine. 2006;31(3): p. 210–216.

17 Jana Lynott, et al. Planning Complete Streets for an Aging America. Washington, DC: AARP Public Policy Institute; 2009.

18 Bailey L. Aging Americans: Stranded without Options. Washington DC : Surface Transportation Policy Project; April 2004.

## Connectivity

A roadway network should be designed with pedestrians and bicyclists in mind. An average person walks about 3 miles per hour and on a bicycle, can travel up to 8 – 10 miles per hour. Therefore, a key component of creating healthy communities and neighborhoods is ensuring a well-connected network of roadways and trails that provide residents short, direct routes to destinations.

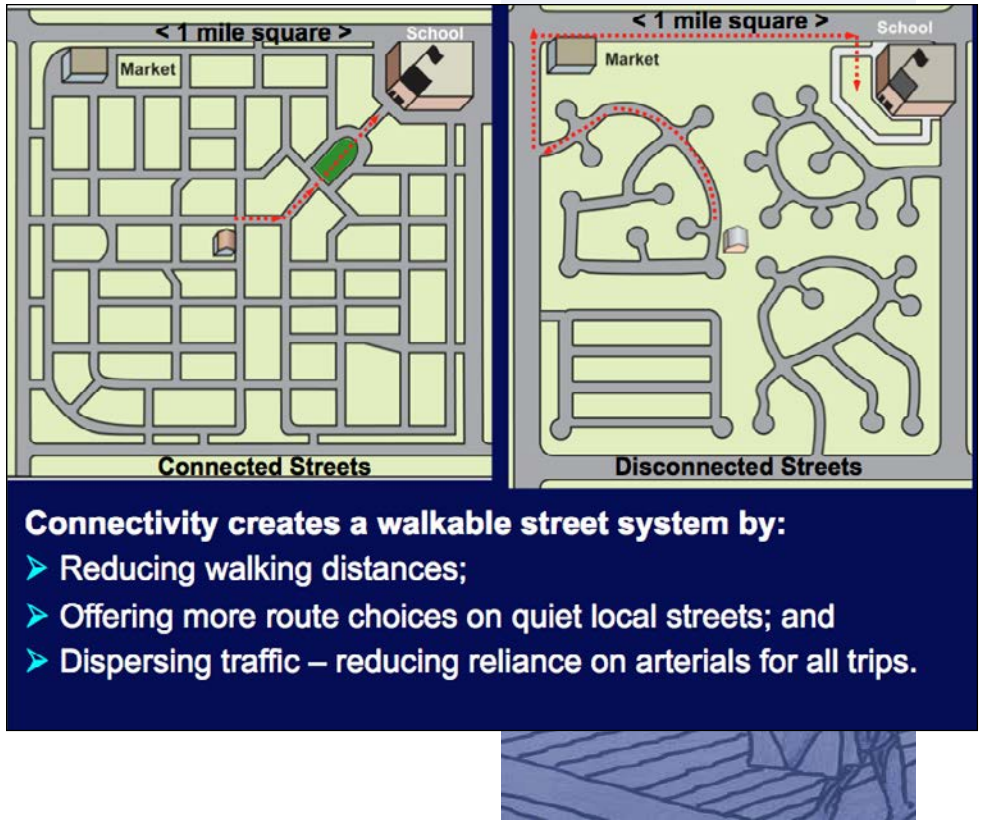
The term connectivity is often used to describe how a roadway network is laid out and connected. In general, a roadway network with high connectivity will have short street blocks, numerous intersections, and minimal dead-ends (cul-de-sac). This type of roadway configuration will help reduce travel distance, increase route options, and allow for direct travel routes to destinations. All of these measures make walking and bicycling more feasible. Recent studies have underscored this point by demonstrating the association between increased pedestrianism and high street connectivity. [19, 20]

In comparison, a neighborhood with low connectivity will deter walking or biking. A poorly connected roadway often looks like a configuration of "loops and lollipops" that creates more circuitous trips and longer distance trips. This type of roadway layout funnels traffic onto a few arterial roadways resulting in wider roads that carry more cars travelling at higher speeds. This creates a hostile and dangerous environment for everyone, including motorists, cyclists and pedestrians. A study of 24 California cities in 2009

19 Hess PM, Moudon AV , Snyder MC, Stanilov K. Site design and pedestrian travel. Transportation Research Record.2001;1674: p. 9–19.

20 Baran PK, Rodriguez DA , Khattak AJ.Space syntax and walking in a new urbanist and suburban neighborhood. Journal of Urban Design. 2008;13(1):p. 5–28.

*In a traditional, well-connected street system it is possible for a child to walk to school from the neighborhood since there is a direct route on slow, local streets. On the right, with disconnected streets, kids are typically driven to school. This means more traffic on the arterials. The trip home requires three left turns, which often creates the need for traffic lights. This, in turn, causes more congestion and wider streets, as virtually all trips must be made on arterial streets. On the left, even if people drive, they are less reliant on the arterial system, as they have more access points. (Graphics: Courtesy of Federal Highway Administration "Design for Pedestrian Safety" course)*



found a higher risk of fatal or severe crashes in cities with very low street network density. [21] In addition, homes and businesses located next to these high-volume roadways usually require soundwalls, which can create additional physical barriers to pedestrian connectivity and decrease the overall visual appeal of the pedestrian environment.

A roadway network that works for bicycles and pedestrians also works for other modes of travel. Transit use is improved in communities with high connectivity. Recent research has indicated that transit stops in areas with well-connected street grids are used more heavily than those in areas with less connected streets. [22] Transit service can include light rail, bus rapid transit, regular bus service and local or neighborhood shuttles. Creating a more connected street network that includes shorter route options also has a positive impact on overall performance of the network since it provides more redundancy and route choices. A system with low levels of connectivity will typically require several large arterial roadways and longer signal cycles at intersections while a well-connected street system relies on smaller streets, shorter blocks, slower speeds, fewer stops and signals and shorter signal cycles when signals are required.

A highly connected roadway network also improves the delivery of key local government services, such as emergency response. This type of network offers far more links and approaches for fire trucks and police rushing to an emergency. This is especially important when one route may be blocked. Research has also shown that a fire station is able to serve three times as much area with a connected roadway network as in an area with unconnected streets. [23] Other benefits include increases in the efficiency of services such as garbage collection and street sweeping.

In terms of crime and safety, it is important to note that connectivity should be considered and applied differently based on the settings (i.e. urban, suburban, and rural). For example, high connectivity might best deter personal crime in a more urban area with heavier foot traffic and "eyes on the street." However,

21 Study by Wesley E. Marshall and Norman W. Garrick, "Street Network Types and Road Safety: A Study of 24 California Cities," August 2009

22 Lund H, Wilson RW, Cervero R. A reevaluation of travel behavior in California TODs. Journal of Architectural and Planning Research. 2006;23(3): p. 247–263.

23 Susan Handy, Robert G. Paterson and Kent Butler (2004), Planning for Street Connectivity: Getting From Here to There, Planning Advisory Service Report 515, American Planning Association.


*Plazas, or public places, can come in all shapes and sizes. This small plaza in Monterey, CA, (on the left) takes space that might otherwise be used for the street and creates a seating area for a coffee shop and other local businesses. In a residential setting, the plaza in the Doe Mill neighborhood in Chico, CA, (on the right) is organized around residents' mailboxes. (Photos: Local Government Commission)*

a lower level of connectivity might better serve a suburban area with less foot traffic and concern centered on property crime prevention. [24] Regardless of community type, good pedestrian connectivity using street networks, separate pathways and trails are key elements in providing active transportation choices.

24 Paulsen, Derek J. "Crime and Planning" CRC Press, 2013.


*The photo at the top is from a small town in California and captures urban design qualities that can create a great environment for walking. The buildings and trees enclose the street but the store windows allow for transparency. Architectural details, awnings and benches give the street a human scale and the different materials and textures make the street imageable and complex. The photo on the bottom, Michigan Avenue in Chicago, IL, shows how these qualities can also apply to a dense urban environment. Although the buildings fronting this street are high-rise, the awnings, doorways and landscaping help to create a human scale setting in which pedestrians feel comfortable. (Photos: Local Government Commission and Dan Burden)*

## Site and Street Design that Foster Health

The measures discussed above — density and connectivity — are general tools used to characterize physical environments that foster active living. There are additional measures, which are subtler and speak to how people perceive and interact with their physical environment. The urban design qualities discussed below refer to how people feel when they walk, bike, or drive along a street, and are good measures of site and street design that facilitate healthy lifestyles:

**Imageability** is the quality of a place that makes it distinct, recognizable and memorable. A place with high imageability is unique; it contains physical elements arranged in a way that captures attention, evokes positive feelings, and creates lasting impressions. Public plazas illustrate the potential health benefits of imageability. A public plaza is a publicly accessible space that excludes cars and promotes walking by providing pedestrians with a safe, comfortable space to gather, play, or simply watch things go by. Plazas often constitute welcome "interruptions" or places of respite from the urban grind, and provide destinations for those engaged in active transport. 25

25 Ewing R. Pedestrian- and Transit-Friendly Design. Washington, DC : Urban Land Institute/American Planning Association; 2009.

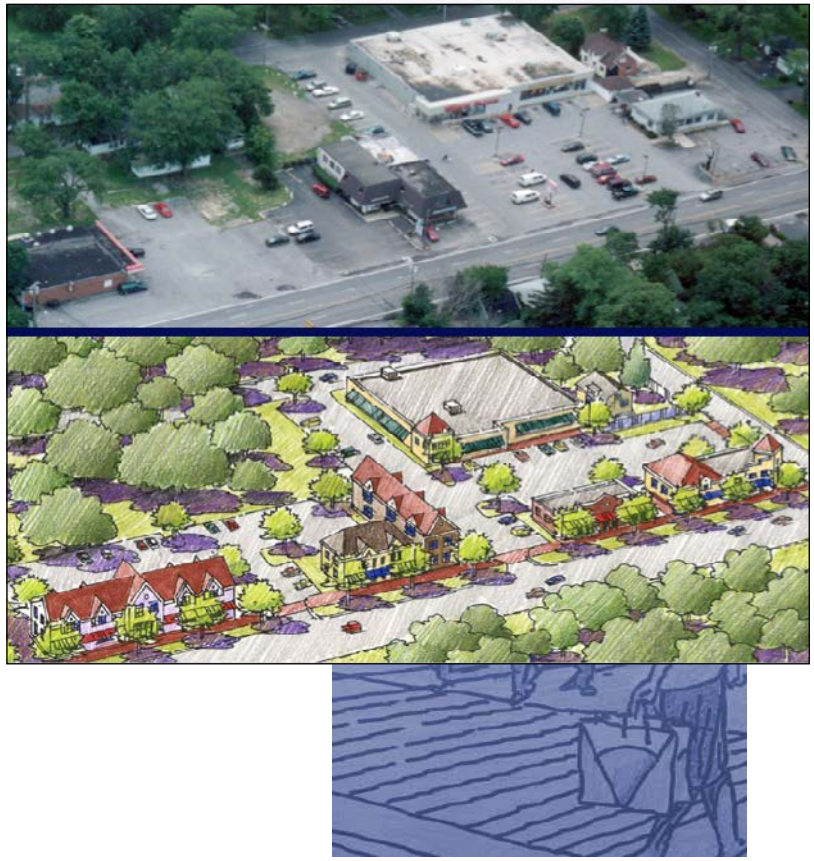
**Enclosure** describes the degree to which urban design elements visually define streets and other public spaces. Adding tree canopies, on-street parking and placing buildings closer to the street to create a sense of enclosure, or an "outdoor room," slows cars and improves pedestrian comfort. 26

**Human Scale** refers to size, texture and articulation of physical elements that match the size and proportion of humans, and correspond to the speed at which humans walk. Elements such as building detail, pavement texture, street trees, and street lights and furniture contribute to the human scale of a space.

**Transparency** describes the degree to which people can see or perceive what lies beyond the edge of a street or other public space. Windows and entrances along the street create an interesting and engaging environment that draws pedestrians along the sidewalk. Being able to see beyond the edge of buildings and being seen creates a safer environment for people on the street and inside buildings.

**Complexity** refers to the visual richness of a place. Complexity can be achieved in a number of ways. For example, the incorporation of temporary and permanent public art installations into the streetscape provides for a more attractive and engaging environment. Artistic bike racks are available that can incorporate art with functionality. Increasing the number of outdoor cafes enhances street activity. These examples contribute to the attractiveness of urban places, which in turn can encourage their use by pedestrians and bicyclists. [27]

*As streets get wider and faster, the tendency is to set buildings further back from the street and locate parking between the buildings and the street. This creates an automobile-dominated environment in which buildings are surrounded by a sea of parking and walking is discouraged. However, more communities are redesigning their shopping centers as shown above with parking located behind and alongside the buildings to create more of a main street environment. (Photo and Graphic: Dan Burden)*



26 Dan Burden, et al. "Street Design Guidelines for Healthy Neighborhoods" 1999.

27 Identifying and Measuring Urban Design Qualities Related to Walkability (Ewing R, Clemente O, Handy S, Winston E, Brownson RC. Active Living Research, 2005.)

## SITE DESIGN

Several site design features can be integrated into a community in order to help achieve imageability, enclosure, human scale, transparency, and complexity— and, in turn, encourage walking and biking trips:

**Shorter Building Setbacks**
When buildings are set back far from the street edge, the roadway appears to be very wide. This may result in excessive vehicle speeds, creating an unsafe environment for pedestrians, bicyclists, and drivers. Conversely, buildings set closer to the street edge foster a sense of enclosure. The addition of buildings and trees that are adjacent to the sidewalk create a "street wall" that frames the street and narrows a driver's field of vision. Taller buildings placed close together create a solid street wall and add to the sense of enclosure. People tend to feel more comfortable walking on streets with a sense of enclosure. [28] People also tend to drive slower and more safely.

**Street-Facing Building Entrances**
Crime Prevention Through Environmental Design (CPTED) utilizes strategies to deter criminal behavior and increase peoples' sense of safety through the design of the built environment. Utilizing CPTED strategies as part of active design standards can reduce crime and increase community safety. These principles including natural surveillance, natural access control, and territorial reinforcement relate to building entrances.

Good site design utilizes natural surveillance. Building entrances designed to face the street helps maximize visibility and natural surveillance. Providing easily identifiable store and building entrances helps foster positive social interaction among legitimate users of private and public space. Creating an atmosphere that does not encourage or invite unlawful activity can help reduce opportunities for criminals. Other physical elements can support natural surveillance including well-designed and placed landscaping, and lighting that provides for nighttime illumination of parking areas, walkways, entrances and exits.

Good site design also utilizes natural access control. The placement of exits, fencing, lighting and

28 Streets and Sidewalks, People and Cars: The Citizens Guide to Traffic Calming.

landscaping and the clear differentiation between public and private space is used to limit or control access and reduce the opportunity for crime. This can be achieved by providing sidewalks, pathways, pavement, lighting, landscaping and signage that clearly guide the public to and from entrances and exits.

By clearly delineating private space, a sense of ownership among residents is established, and creates an environment where "intruders" are more easily identified. Buildings, low fences, landscaping and other features can be used to express ownership and define public, semi-public and private spaces. Territorial reinforcement can be achieved with pavement treatments, landscaping, elevated porches, steps, signage, screening and fences that define and outline ownership of property.

**Parking Design that Considers Active Transport**

In general, when parking is available, people use it. Research in California indicates that increased parking supply may result in reduced active transportation and public transit use. [29] An oversupply of parking increases the walking distances between business and other destinations, and reduces land available for other uses. Furthermore, parking lots increase heat island effect. This effect occurs when on hot, sunny days the sun heats dry, exposed surfaces, such as roofs and pavement, to temperatures hotter than the air, while shaded or moist surfaces — often in more rural surroundings — remain close to air temperatures. Heat island effect can compromise human health, contributing to respiratory difficulties, heat cramps and exhaustion, non-fatal heat stroke, and heat-related mortality. [30] Heat island effect can also increase air pollution and impacts to water quality. Well-designed car parking will reduce unnecessary automobile travel, particularly when walking, bicycling, and public transit are convenient alternatives. Pedestrian and bicycle access points should be well identified. Parking should be provided for people with disabilities to support their needs for access and physical activity.

In multifamily and commercial settings:

- Parking located behind or on the side of buildings, with adequate lighting and security provided for safety will provide access to buildings but will not dominate the frontage along a street. If parking must be placed next to sidewalks it should be buffered with landscaping or low walls.

29 Lund H, Wilson RW, Cervero R. A reevaluation of travel behavior in California TODs. Journal of Architectural and Planning Research. 2006;23(3): p. 247–263.

30 US EPA. "Heat Island Effect: Basic Information" http://www.epa.gov/hiri/about/index.htm

- Well-designed pedestrian access and connectivity from transit stops through parking lots to retail and businesses is important in providing safe passage and encouraging people to walk and utilize transit for their shopping trips.

**Sustainable Landscaping**

Native, water-efficient, and climate-appropriate landscaping is a site design feature that offers numerous health benefits. Sustainable landscaping practices lower heat island temperatures and improve air and water quality. In various settings, views that include landscaping have a positive impact on health: College students with more natural views from their dorm windows score higher on attention tests; [31] workers with a view of nature from their desks claimed 23% fewer sick days than workers without views of nature; [32] patients recovering from surgery in hospital rooms with window views of natural scenes had shorter postoperative hospital stays, received fewer negative evaluations in nurses' notes, and took fewer potent painkillers than matched patients in similar rooms with windows facing a brick wall. [33]

Trees can play an important role in reducing crime rates and domestic violence, and can also increase social ties. In a study of Chicago public housing residents, University of Illinois researchers found that buildings with high levels of greenery had 52% fewer property and violent crimes than apartment buildings with little or no vegetation. Green spaces draw people outdoors, increasing surveillance and discouraging illegal activity. The green and groomed appearance of an apartment building is a signal that owners and residents care about a property, and watch over it and each other. Greener common areas also facilitated stronger social ties. The more trees and landscaping in the common spaces, the more those spaces were used by residents. Those individuals living closer to green spaces enjoyed more social activities, had more visitors, knew more of their neighbors, and reported committing fewer acts of aggression toward household members than those living near barren spaces. [34]

31 Tennessen, Carolyn M., and Bernadine Cimprich. "Views to Nature: Effects on Attention." Journal of Environmental Psychology 15.1 (1995): 77-85.

32 Kaplan, Rachel, and Stephen Kaplan. The Experience of Nature: a Psychological Perspective. Cambridge: Cambridge UP, 1989. Web. \.

33 Ulrich, R. S. "View through a Window May Influence Recovery from Surgery." Science 224.4647 (1984): 420-21.

34 Human – Environment Research Laboratory, University of Illinois at Urbana Champaign.

*In residential neighborhoods where traffic volumes are low, streets should be designed to be narrow and slow to create an environment where pedestrians and cyclists can fit in. Ideally, the design of the street should establish that motorists will feel most comfortable at about 25 mph. The wide residential street shown on the top allows motorists to feel comfortable traveling at much higher speeds. By contrast, the narrow street shown on the bottom will allow cars to move more slowly and calmly through the neighborhood and will also work well for people walking or riding a bicycle. (Photos: Local Government Commission)*

## STREET DESIGN

Poor street design results in physical environments that are dangerous to pedestrians and bicyclists. When people do venture out to walk on poorly designed streets, they often face high-speed traffic and dangerous situations that result in high rates of pedestrian injuries and fatalities. These conditions further discourage people from walking and bicycling.

Walkable streets form the backbone of friendly, interactive, safe and secure neighborhoods. Along these streets, people know their neighbors. Walkable streets allow responsible motorists who live in or travel through the neighborhood to feel most comfortable at lower rather than higher speeds. Motorists traveling too fast for the neighborhood feel uncomfortable on curves, at intersection turns, and with the short length of blocks. Motorists who go the correct speed feel relaxed and in tune with the neighborhood. Neighbors, in turn, feel comfortable and safe walking, riding a bicycle, or chatting with neighbors along such streets. [35]

Healthy streets are walkable streets, best measured by how pedestrians act and feel when walking along them. Strolling along healthy streets, pedestrians

35 Dan Burden, et al. "Street Design Guidelines for Healthy Neighborhoods" 1999.

feel relaxed. They enjoy the experience of walking in this environment and feel connected to their surroundings. Pedestrians in healthy street environments feel confident and in control, and do not feel threatened when encountering strangers.

Another measure of successful streets is the number of people walking along them. Streets are working especially well when pedestrians are using them and when people stop and talk with others. Walkable streets also foster a sense of ownership by everyone who uses them. People who feel comfortable on well-designed streets have the desire to protect and look after them. When a healthy street gets "sick," the people who live on it want to nurture it back to health rather than move away. The health of a community can often be measured by the health of its streets. [36]

**Complete Streets**

The Complete Streets approach ensures that roads are designed and operated to enable safe access for all users: pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities. Sacramento County requires complete streets as part of its adopted improvement standards. This approach encourages communities to begin retrofitting poorly designed roads by adding sidewalks, trees, and bicycle lanes. Additional features that include reducing crossing distances, installing crosswalks and better bus stops all make walking and bicycling safer and more inviting for users of all ages and abilities. Good redesigns help reduce speed and conflict points, two big causes of crashes. [37] Safe environments for pedestrians and bicyclists maintain visual and sensory attention; streets are calm, narrow, and complex.

Traffic calming is a way to retrofit existing streets that are often too wide and that encourage motorists to travel at higher speeds than are desirable. It is a way to reduce the negative effects of automobile use, alter driver behavior and improve conditions for the property owner, retailer, walker and bicyclist. Maintaining slower speeds allows drivers to be more aware of their surroundings. [38] Traffic calming treatments affect the driver's perception of the street, and cause a change in his or her behavior. [39] Traffic calming treatments

36 Dan Burden, et al. "Street Design Guidelines for Healthy Neighborhoods" 1999.

37 National Complete Streets Coalition and Local Government Commission. "It's a Safe Decision: Complete Streets in California." 2012.

38 Local Government Commission and Center for Livable Communities. "Streets and Sidewalks, People and Cars: The Citizens Guide to Traffic Calming." 2007.

39 Local Government Commission and Center for Livable Communities. "Streets and Sidewalks, People and Cars: The Citizens Guide to Traffic Calming." 2007.


*Traffic calming comes in many shapes and sizes. The simplest tool is the speed bump, which can be effective on low-volume local streets but can be a challenge for emergency responders. Less severe treatments that use horizontal instead of vertical deflection tend to be equally effective and can also provide additional benefits. For example, the curb extension shown above not only slows vehicles entering and exiting the street but reduces the crossing distance for pedestrians and improves visibility. The mini-circle show above can be used at intersections to slow vehicle speeds on all approaching streets and with attractive landscaping or public art can beautify the neighborhood and create a gateway. (Photos: Local Government Commission)*

make use of horizontal and vertical deflection to slow motorists. Horizontal deflection treatments include curb extensions, medians, mini-circles and roundabouts. Vertical deflection refers to the use of speed humps or raised intersections or crossings. [40]

Roads designed with the minimum width and minimum number of lanes practicable reduce traffic speeds and pedestrian crossing distances. [41] Continuous medians or short median islands on multilane streets simplify the crossing and reduce pedestrian crashes by up to 40%. Shorter crossing distances are especially beneficial to the elderly and people with disabilities, who may require more time to cross the street.

40 Huang HF, Stewart JR, Zegeer CV .Evaluation of lane reduction "road diet" measures and their effects on crashes and injuries. Transportation Research Record. 2002;1784: p. 80–90.

41 Ewing R. Pedestrian- and Transit-Friendly Design. Washington, DC : Urban Land Institute/American Planning Association; 2009.

Complete streets support physical activity among people with disabilities by making streets and paths accessible to them. A number of environmental design factors have been shown to increase leisure-time activity among people with disabilities, including the quality of the walking path, the provision of targeted signage, and the accessibility of destinations and transportation along the path. [42, 43, 44] Specific measures include: smooth, sufficiently wide paths that can accommodate a wheelchair or walker; paths with auditory crossing signals, adequate crossing times, clear signage, visible access ramps, and connections to walking, bicycling, and public transit routes.

Street intersections also need to be designed with all users in mind. In urban areas, that means building compact intersections that slow turning vehicles and shorten the crossing distance for pedestrians. Intersections of streets with on-street parking provide an opportunity to add curb extensions on the corners where vehicles are not allowed to park to shorten the crossing distance, improve visibility and slow vehicles making turns. Pedestrian crossings, especially at uncontrolled intersections, should include high-visibility crosswalk markings and signs alerting motorists to the crossing. At higher speed locations, additional tools including rapid flash beacons should be considered.

In healthy neighborhoods, people should feel comfortable walking at all hours. Street lighting helps pedestrians feel safer at night. Many neighborhoods prefer more numerous, smaller street lamps to the larger, more widely spaced, high-intensity lights often found in conventional neighborhoods. Low-angle, pedestrian scale lamps that emit full-spectrum light allow for more realistic colors at night, and they also reduce glare, letting people see the night sky. [45]

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42 Spivok M, Gauvin L, Brodeur J. Neighborhood-level active living buoys for individuals with physical disabilities. American Journal of Preventive Medicine. 2007;32(3): p. 224–230

43 Spivok M, Gauvin L, Riva M, Brodeur J.Promoting active living among people with physical disabilities: evidence for neighborhood-level buoys. American Journal of Preventive Medicine. 2008;34(4):p. 291–298.

44 Spivok M, Gauvin L, Brodeur J. Neighborhood-level active living buoys for individuals with physical disabilities. American Journal of Preventive Medicine. 2007;32(3): p. 224–230

45 Dan Burden, et al. “Street Design Guidelines for Healthy Neighborhoods” 1999.

*The design of sidewalks in residential neighborhoods affect the pedestrian environment. The top photo shows the problems with an attached sidewalk with a rolled curb: cars will tend to park on the sidewalk and create a hostile environment for people walking. This design fails to recognize that a comfortable sidewalk needs to have a well-defined curb zone, typically with a vertical curb that separates the street from the sidewalk. It also needs a "furniture zone" to provide a buffer to the street and space for trees, landscaping, hydrants, benches, etc. By contrast, the bottom image shows a well-designed sidewalk with a good furniture zone, ample and unobstructed space for walking, and a buffer for buildings and private spaces. (Photos: Local Government Commission and Dan Burden)*

**Appropriately-Sized Sidewalks, Buffered from the Street**

Good sidewalk design recognizes that sidewalks have many functions beyond providing a place for people to walk. Sidewalks need to provide space for all the "stuff" that we need on our streets including hydrants, lampposts, signs, trash receptacles, transit shelters, landscaping, trees, etc. Sidewalks also provide direct access to stores and businesses, and have become extensions for outdoor dining, shopping, and socializing. Pedestrians feel safer when separated from parking flows and parking spaces. Because of these different functions, it is important to design sidewalks that include the following zones: a curb zone that creates a vertical separation between the street and sidewalk; a furniture zone for all the "stuff" discussed above; a pedestrian zone for walking; and a frontage zone adjacent to buildings, doors and fences. The furniture zone provides an important buffer between moving automobiles and pedestrian spaces; landscaping and trees may be incorporated into this zone, as well as the frontage zone.

The incorporation of sustainable landscaping and trees into street design provides numerous health benefits. Trees make streets more attractive for active transport by providing a sense of enclosure. The presence of trees on streets has been associated with higher rates of walking to school among children. [46] Trees

46 Larsen K, et al. The influence of the physical environment and sociodemographic characteristics on children's mode of travel to and from school. American Journal of Public Health.2009;99(3): p. 520–526.

also improve air and water quality and can reduce asthma rates in children by sequestering particulates, carbon and other emissions. [47] Trees reduce exposure to ultraviolet light from the sun, lowering the risk of skin cancer and cataracts. Noise can reach unhealthy levels in urban areas – trees reduce noise pollution by acting as a buffer and absorbing urban noise, especially high-frequency sounds that are the most distressing to people. [48]

Trees calm traffic and, in turn, encourage walking. A treeless street can encourage higher speeds, increasing the frequency and severity of accidents. Street trees provide both visual interest and obstacles near the road edge, which encourage safer speeds and quieter neighborhoods. Closely spaced trees help motorists gauge and control their speeds. Narrower streets combined with street trees also slow drivers down, while maximizing shading of heat-absorbing asphalt. Trees planted between the curb and sidewalk improve safety by adding a buffer between moving vehicles and pedestrians.

The provision of seating, drinking fountains, restrooms, and other infrastructure supports increased frequency and duration of walking. [49, 50, 51] In focus groups, seniors reported that benches and restrooms would support them in walking more, while tripping and traffic hazards were deterrents.

Sidewalk width, an important aspect of good sidewalk design, is best when consistent with its use. [52, 53] Sidewalks should be at least 5 feet wide to allow two adults to walk side by side. In front of schools or in commercial areas they should be wider to accommodate higher pedestrian volumes. In general, sidewalks should be wide enough to accommodate a range of pedestrian users safely, while not as wide as to feel empty. The needs of people with strollers, wheelchairs, or luggage should be considered.

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47 American Lung Association (ALA). 1997. Childhood Asthma: A Matter of Control. Pamphlet.

48 McPherson, Gregory, James Simpson, Paula Peper, Qingfu Xiao, Dennis Pettinger, and Donald Hodel. Tree Guidelines for Inland Empire Communities. Rep. Western Center for Urban Forest Research and Education, USDA Forest Service, Pacific Southwest Research Station, 2001.

49 Ewing R. Pedestrian- and Transit-Friendly Design. Washington, DC : Urban Land Institute/American Planning Association; 2009.

50 Whyte WH. The Social Life of Small Urban Spaces. Washington, DC : The Conservation Foundation; 1980.

51 Lockett D, Willis A, Edwards N. Through seniors' eyes: an exploratory qualitative study to identify environmental barriers to and facilitators of walking. Canadian Journal of Nursing Research. 2005;37(3):p. 48–65.

52 Cervero R, Kockelman K. Travel demand and the 3Ds: density, diversity, and design. Transportation Research Part D.1997;2(3): p. 199–219.

53 Rodriguez DA , Joo J. The relationship between non-motorized mode choice and the local physical environment. Transportation Research Part D. 2004;9(2):p. 151–173.

**Maintenance**
Good maintenance should follow good site and street design, and arguably impacts all of the urban design qualities discussed above. Maintaining public and private spaces helps reinforce ownership, pride and a sense of order. Poor maintenance or deterioration signals greater tolerance of disorder. Many law enforcement agencies subscribe to the "Broken Window Theory," which emphasizes that the sooner broken windows are fixed or graffiti is removed or trash is collected, the less likely it is that vandalism will occur in the future. Design features that can facilitate better maintenance of a space include low-maintenance landscaping and lighting treatments, as well as signage indicating who to call when maintenance is required, for such issues as light bulb replacement and plant overgrowth.

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# Appendix E: Glossary

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|---|---|
| ***Accessory Structures*** | A structure detached from a principal building, located on the same lot and incidental to the principal use. |
| ***Apartment Building*** | Any building or portion thereof which contains three or more dwelling units. |
| ***Architecture*** | The practice of designing and building structures. |
| ***Articulation*** | The dividing or segmenting of building form into smaller components to create a sense of scale. Articulation may be described in terms of roughness of materials, number of openings, patterns in materials, differences in materials, massing, use of detailing, building setbacks and stepbacks, etc. |
| ***Balance*** | An aspect of rhythm achieved by matching different symmetrical and asymmetrical elements which, when perceived as a whole, display harmony or equilibrium. |
| ***Bay Spacing*** | The spacing between structural columns (horizontal) and beams (vertical). |
| ***Berm*** | A mound or wall of earth that may be landscaped to create a screen or barrier. |
| ***Balcony*** | A platform enclosed by a railing or parapet which is suspended or cantilevered from, or supported solely by the principal structure; for private use of tenants or for exterior access to above-grade living units. |
| ***Block Length*** | The longest dimension of a block, from one intersection to the next. |
| ***Built Environment*** | The elements that are generally built or made by people as contrasted with natural processes. |

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| ***Business District*** | A commercial district or large-scale commercial development. |
| ***Carport*** | An automobile shelter having one or more sides open. |
| ***Canopy*** | A roofed structure constructed of fabric or other material placed so as to extend outward from a building providing a protective shield for doors, windows, and other openings, supported by the building and supports extended to the ground directly under the canopy or cantilevered from the building. |
| ***Compatible*** | Projects that give an appearance of existing together without conflict with respect to site architecture, and landscaping design. |
| ***Commercial District*** | A district comprised primarily of commercial and business activities. |
| ***Community Design Framework*** | The land use activities, circulation pathways and open space systems that define community character. |
| ***Cul-de-sac*** | A street with a single common ingress and egress, and with a turnaround at the end. |
| ***Daylighting*** | Strategies for increasing the percentage of illumination provided by natural light in a building, such as light shelves, toplighting, skylights, window, optimized building orientation and room layout, and devices used to redirect or transport light. |
| ***Dead-end Street*** | A local street open and accessible by cars at one end only. |
| ***Design*** | To create, fashion and arrange details or elements. The creation and execution of aesthetic and functional elements. |
| ***Design Continuity*** | A unifying or connecting theme or physical feature for a particular setting or place, provided by one or more design elements of the natural or created |

environment. The use of design continuity helps to avoid abrupt and/or severe differences in character with adjacent properties.

***Design Review*** The comprehensive evaluation of a development and its impact on neighborhood properties and the community as a whole, from the standpoint of site and landscape design, architecture, materials, colors, lighting and signs, in accordance with a set of adopted guidelines and standards.

***Density*** The number of dwelling units per acre.

***Eave*** The underside of a sloping roof projecting beyond the wall of a building.

***Elevation*** A mechanically accurate "head-on" drawing of a face of a building or object, without the allowance for the effect of the laws of perspective. Any measurement on an elevation will be in a fixed proportion, or scale, to the corresponding measurement on the real building.

***Facade*** That portion of any exterior elevation on the building extending from grade to top of the parapet, wall, or eaves and the entire width of the building elevation.

***Fascia*** A flat board with a vertical face that forms the trim along the edge of a flat roof, or along the horizontal, or eaves, or sides of pitched roof. The rain gutter is often mounted on the fascia.

***Fenestration*** Windows, doors and other openings in building walls.

***Floor Area Ratio*** The relationship of the total floor area of a building to the land area of the parcel as defined in a ratio in which the numerator is the floor area and the denominator is the parcel area.

***Footprint*** The outline of a building at all of those points where it meets the ground.

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| ***Form*** | The shape of a building or architectural features such as roofs. |
| ***Franchise/Corporate Architecture*** | Buildings that use a universal corporate architectural style, colors and signage. |
| ***Frontage, Lot or Parcel*** | The portion of a property that abuts one side of a public street which allows primary access to the property. |
| ***Gateway*** | A point along a roadway entering a city, or other defined planning area, at which a motorist gains a sense of having left the previous environs and of having entered the city or planning area. |
| ***Guidelines*** | General statements of policy direction around which specific details are established. These are qualitative statements. |
| ***Hardscape*** | Typically involves paved areas such as roads, sidewalks, driveways, fountains, shelters and medians where the upper-soil-profile is no longer exposed to the actual surface of the Earth. |
| ***Heat Sinks*** | An environment or object that absorbs and dissipates heat using thermal contact (either direct or radiant). |
| ***Human Scale*** | Generally refers to the use of human proportioned architectural features and site design elements clearly oriented to human activity. |
| ***HVAC*** | Heating, ventilation and air conditioning equipment. |
| ***Industrial District*** | An area planned and developed for industrial uses. |
| ***Infill*** | Building and land development that utilizes land within the environment that is unused or under-used and surrounded by existing development. |
| ***Masonry*** | Wall construction of materials such as stone, brick, adobe and concrete. |

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| ***Massing*** | The distribution of building volumes in regard to a) the building's relative location on the site and b) the height, width, depth of the elements of a building relative to each other. |
| ***Multifamily*** | Residential development projects with three (3) or more units, including attached and detached units and densities greater than eight (8) dwelling units per acre. |
| ***Open Space*** | The total land area not individually owned or dedicated for public use, which is designed and intended for the common use and enjoyment of the residents or for conservation of natural resources. |
| ***Open Space, Common*** | Common open space includes all landscaped areas, yards, patios, swimming pools, putting greens, and other recreational-leisure facilities; areas of scenic or natural beauty and habitat areas; hiking, riding, or off-street bicycle trails; and landscaped areas adjacent to roads that are in excess of minimum required rights-of-way. |
| ***Open Space, Private*** | A usable open space adjoining and directly accessible to a dwelling unit, reserved for the exclusive use of residents of the dwelling unit and their guests. |
| ***Orientation*** | The direction that various sides of a building face. |
| ***Outdoor Amenities, Common*** | Outdoor open spaces and recreation facilities such as pools, patios, tennis courts, tot-lot and play equipment, hot-tubs and saunas, picnic and barbeque areas, tables, benches and outdoor seating for the use of residents within the residential project. |
| ***Palette*** | In building architecture, the set of colors to be used on a particular building or group of buildings. In landscape architecture, the set of planting materials to be used in the landscape design. |

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| ***Parapet*** | The portion of a wall that rises above the edge of the roof. |
| ***Paseo*** | A narrow pedestrian walkway or passageway through a site. |
| ***Pedestrian Scale*** | Describes an area designed to allow pedestrians to comfortably walk from one location to another and interact with the built environment; an effort to create an appropriate relationship between human beings and the size and function of surrounding buildings; an emphasis on building features and characteristics which can be observed in close proximity, at the speed a pedestrian would travel. |
| ***Placemaking*** | Planning places where deliberate placement of land uses, location and type of circulation, and shape and character of spaces result in social and economic focus for communities. |
| ***Public Realm*** | The public realm is the street space from the back of the sidewalk and includes public paths, trails, and open spaces. |
| ***Private Realm*** | The private realm is typically defined as all private interior and exterior spaces from the building façade to the private yard spaces. The area between the back of the sidewalk to the building facades is a "semi-public" or "semi-private" zone that is visible by the public and controlled by the private owner. Semi-private spaces or semi-public spaces may include front yards, side yards, landscaped setbacks and buffers, and common open spaces between buildings. |
| ***Proportion*** | The relationship between elements taken as a whole or in comparison to each other. Often expressed as a ratio. |
| ***Urban Design Plan*** | A plan for a neighborhood, district or corridor that emphasizes the design quality of public places. |
| ***Scale*** | Describes a relative magnitude and the relationship of the proportions among objects. |

***Shiplap*** Wood siding profile that overlaps boards to prevent water penetration.

***Single-family Dwelling*** A detached building designed exclusively for occupancy by one (1) family.

***Site Plan*** A plan showing the form, location and orientation of a building or group of buildings on a site, usually including the dimensions, contours, paving, landscaping, and other significant features of the site. May also be referred to as a plot plan.

***Special Planning Area (SPA)*** Districts or zones that have unique development and/or design standards that supercede the County's zoning ordinance.

***Standards*** They set the minimum and maximum requirements based on quantifiable criteria. Usually associated with and related to zoning.

***Streetscape*** A physical character of an area that may either abut or be contained within a public or private street right-of-way or access way that may contain sidewalks, street furniture, landscaping or trees, and similar features.

***Sustainability*** Sustainability is a systemic concept, relating to the continuity of economic, social, institutional and environmental aspects of human society. It entails preserving biodiversity and natural ecosystems, and planning and acting to maintain these ideals in a very long term.

***Theme District*** Design features such as spatial characteristics, signage, landscape or architecture that contribute to the image and identity of a district.

***Townhouse*** A single dwelling unit in a townhouse group, located or capable of being located on a separate lot, and being separated from the adjoining dwelling unit by an approved wall extending from the foundation through the roof and structurally independent of the corresponding wall of the adjoining unit.