

Chapter 2

COMMUNITY DEVELOPMENT

THE CITY OF
BRE A

GENERAL PLAN



Chapter 2

COMMUNITY DEVELOPMENT

LAND USE • CIRCULATION • INFRASTRUCTURE • URBAN DESIGN •
ECONOMIC DEVELOPMENT • GROWTH MANAGEMENT



VISION

Imagine Brea, where the urban form creates a living, active, and diverse environment that complements all lifestyles and enhances neighborhoods without comprising the valued resources that make Brea unique. Imagine a community where the synergetic planning of land use, circulation, infrastructure, urban design, and economic development works to manage growth.

Imagine residential, commercial, industrial, and public uses existing in harmony with the surrounding urban and natural environments. Imagine reducing the impact of motor vehicle traffic and creating additional opportunities for walking and biking. Imagine architecturally enriching environments that highlight Brea's identity, and that exhibit innovative and modern design features complementary to the City's historic fabric. Imagine visually attractive, high-amenity streetscapes, pedestrian paseos and paths, and urban outdoor rooms. Imagine a local economy that provides a sufficient base of revenue, employment options, and ample commercial, financial, office, and industrial opportunities. Imagine the management of development in a manner that ensures adequate public services and limits impact on the natural environment. Imagine new residents and businesses coming to Brea at a pace that allows infrastructure, public services, and school facilities to meet increased demand and maintain the high standard of education Brea enjoys.

Imagine Brea

This Community Development Chapter addresses the building blocks of the community: its land use patterns and intensities, its infrastructure, the economic engine that provides high-quality jobs and supports public services, and the visual character of public places and private development. The goals and policies in this Chapter will guide all land use and development decisions in the City and within the sphere of influence, with the overarching aim to continue to improve the quality of life and reinforce the sense of place in Brea.



The Ash Street Cottages, a 96-unit single-family development adjacent to Downtown Brea, were envisioned as a true downtown neighborhood. The project has met the goal of a truly urban living experience with resident-serving amenities such as a supermarket, restaurants, and entertainment all within walking distance. The units have retained their cottage charm with many owners adding rose and other gardens to their front yards. Ash Street Cottages has won several awards for innovative design and quality of development.

LAND USE

Imagine flying over Brea in the year 2020. Will Brea look different than the City did at the turn of the century? Will land use patterns have changed significantly? Will you note any new features? This Land Use section identifies how the Brea of the future will appear in terms of land use distribution, type, and intensities, and provides guidance to City staff and decision-makers for realizing the land use vision.



The Evangelical Christian Credit Union headquarters, constructed as part of a Specific Plan, is one example of the quality of architecture found in buildings throughout Brea.

The Land Use Policy Map on page 2-9 identifies the form of Brea in two dimensions. The map indicates that traditional land use patterns of residential neighborhoods and commercial and industrial districts will continue, reflecting stable, long-established areas. The map also shows that opportunities have been created for drawing from the successes of Downtown Brea to create vibrant mixed-use neighborhoods and districts with focal points and pedestrian connections. The land uses permitted reflect the community's goals for its form and character, and the desire to maintain a quality living environment for families, to preserve the City's existing, well-maintained neighborhoods, to strengthen Brea's distinctive image, to diversify and expand the local economy, and to preserve the hillside and natural areas that make Brea unique.

To gain a comprehensive overview of all policies affecting land use, readers are encouraged to look as well to the Community Resources Chapter and the sections addressing Parks and Open Space and Wildlife Habitat.

Context

Brea lies at the base of the Puente and Chino Hills, which provide a scenic contrast to the relatively flat lands upon which much of the City has been developed. This contrast has influenced and continues to shape the types, intensities, and locations of land uses throughout the community. The City's historical uses have also shaped the urban form and street patterns seen in Brea today.

Brea's incorporated city limits, as of 2002, encompassed approximately 7,000 acres or 11 square miles. The community displays a balanced, complementary mix of residential neighborhoods of various housing types and densities, local and large-scale regional commercial businesses and centers, modern industrial uses in business park settings, schools, and public parks. Of the 7,000 acres (Table CD-1), 26 percent are developed with residences, 20 percent with businesses, 5 percent with schools and major public facilities like the Civic and Cultural Center, and 14 percent with parks and other open spaces, with Chino Hills State Park representing a major open space feature.

**Table CD-1
Land Use Distribution**

Land Use Distribution	Percent
Residential (single-family, multi-family, and mobile homes)	26%
Commercial and Office	5%
Industrial	12%
Parks and Open Space	14%
Public Facilities (schools, Civic and Cultural Center, drainage channels, fire stations, and other public facilities)	4%
Carbon Canyon Hillsides Areas and Vacant Lands	21%
Agriculture	1%
Vacant	2%
Other (streets)	15%
Total	100%

Source: City of Brea and Cotton/Bridges/Associates (2001)

Residential neighborhoods — the pride of Brea — contain homes and representative architectural styles from almost every period dating to the early twentieth century. The historic core of the City surrounding City Hall Park still holds the traditional grid street pattern, while development from the 1960s through 1990s is generally suburban in nature, with curving streets and cul-de-sacs. During the 1990s, emerging development trends and the foresightedness of City leaders allowed more traditional urban forms – or “neo-traditional” development – to reappear as higher



Brea's housing stock dates from the early 20th century.

density small lot subdivisions, townhomes, and apartments near the City center, and as mixed use combined with commercial businesses. More compact development also occurred in the foothills, with the clustered forms arranged largely to avoid environmentally constrained properties. Given the built-out character of the flat lands, denser infill development and sensitively designed residential projects on the City fringe will characterize any new housing opportunities.

Commercial uses of early Brea centered near the Birch Street/Brea Boulevard intersection, and while the original buildings no longer remain, this area continues to represent a major commercial center and community gathering place. Both the revitalized Downtown Brea and Brea Mall, a major revenue generator for the City, represent shining examples of careful, daring, and creative planning by City leaders to facilitate development of varied benefits to the community. The large commercial centers along Imperial Highway, east and west of the SR-57 freeway, complement the other commercial centers, and the industrial businesses in west and central Brea provide jobs of varied skill levels.

The hills north of Brea lie in unincorporated Orange and Los Angeles counties, with the Orange County portion within the City's sphere of influence. As discussed in the Introduction chapter, the properties in Orange County bear a direct relationship to land use planning in the City. Visually, the hills frame and define Brea, and the homes, roads, and other infrastructure interface directly with these roughly 7,500 acres. Historically, oil production represented the predominant use in the hillside areas, with the County's Olinda Alpha landfill occupying many acres as well. During the 1980s and 1990s, the gradual depletion of oil resources in the hills set property owners to planning for alternative uses. Also, environmental interests and State park planners recognized that

actions were required to stop increased loss of open space and valuable habitat throughout the Puente and Chino Hills, and managed to secure many acres as permanent, protected open space use, such as Chino Hills State Park.

As Brea moves toward the year 2020, it faces the challenge of retaining those features that define the community while responding to growth pressures placed by forces beyond the City's control. California, and Southern California in particular, will continue to experience an influx of people, both from other states and foreign countries, as well as population growth from new births. What level of growth is anticipated?



Townhomes create opportunities for home ownership in well-planned neighborhoods.

The State Department of Finance estimated Brea's January 1, 2002 population at 36,857¹ people. Population projections developed by the Southern California Association of Governments (SCAG) indicate that regional growth will cause the City's population to experience a 27% increase by the year 2020, to 46,900 Breans. This represents an increase of nearly 10,000 residents over a 20-year period.

The question is not whether Brea can shut the door to growth but how Brea can open its door and welcome development that complements the existing community, enhances the City's character, provides the infrastructure needed to support new uses, and conforms to the City's vision expressed through the General Plan goals and policies.

¹State of California, Department of Finance, *City/County Population and Housing Estimates, 2002, Revised 2001, with 2000 Census Counts*. Sacramento, California, May 2002.

THE LAND USE PLAN

The Land Use Policy Map displayed in Figure CD-2 illustrates the distribution of land use throughout the Brea Planning Area to be achieved over the long term. The map shows nineteen land use categories that reflect long-established land use patterns and intensities, and that respond to community desires for changes in specific areas. This Land Use Plan section describes the land use categories shown on the map and provides more directed policy discussion for those areas of Brea identified as needing focused attention and treatment.

Density and Intensity

People can easily recognize *how* a property is used. The use may be residential or commercial or a park. To describe the level of use, that is, how much development exists on a property (and presumably, what the associated activity level is), land use planners have developed measures called *density* and *intensity*. The term *density* is used for residential uses and refers to the population and development capacity of residential land. Density is described in terms of dwelling units per acre of land (du/ac).

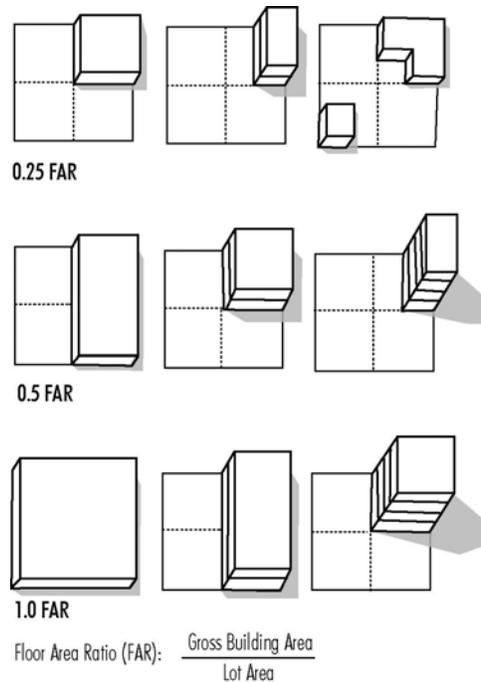


Residential units at Olinda Heights (Ranch) have been built at a density of 12 dwelling units per acre (Medium Density Residential). Different phases of the development are built at lower and higher densities ranging from 6 to 15 dwelling units per acre.

Development *intensity* refers to the extent of development on a parcel of land or lot (that is, the total building square footage, building height, the floor-area ratio, and/or the percent of lot coverage). While intensity generally describes nonresidential development levels, in a broader sense, intensity also can be used

to express overall levels of both residential and nonresidential development types. For land uses in Brea, floor-area ratio and building square footage are used as measures of nonresidential development intensity. The floor-area ratio, or FAR, describes the relationship between the total square footage of development on a lot and the area of that lot. Figure CD-1 illustrates different FAR calculations.

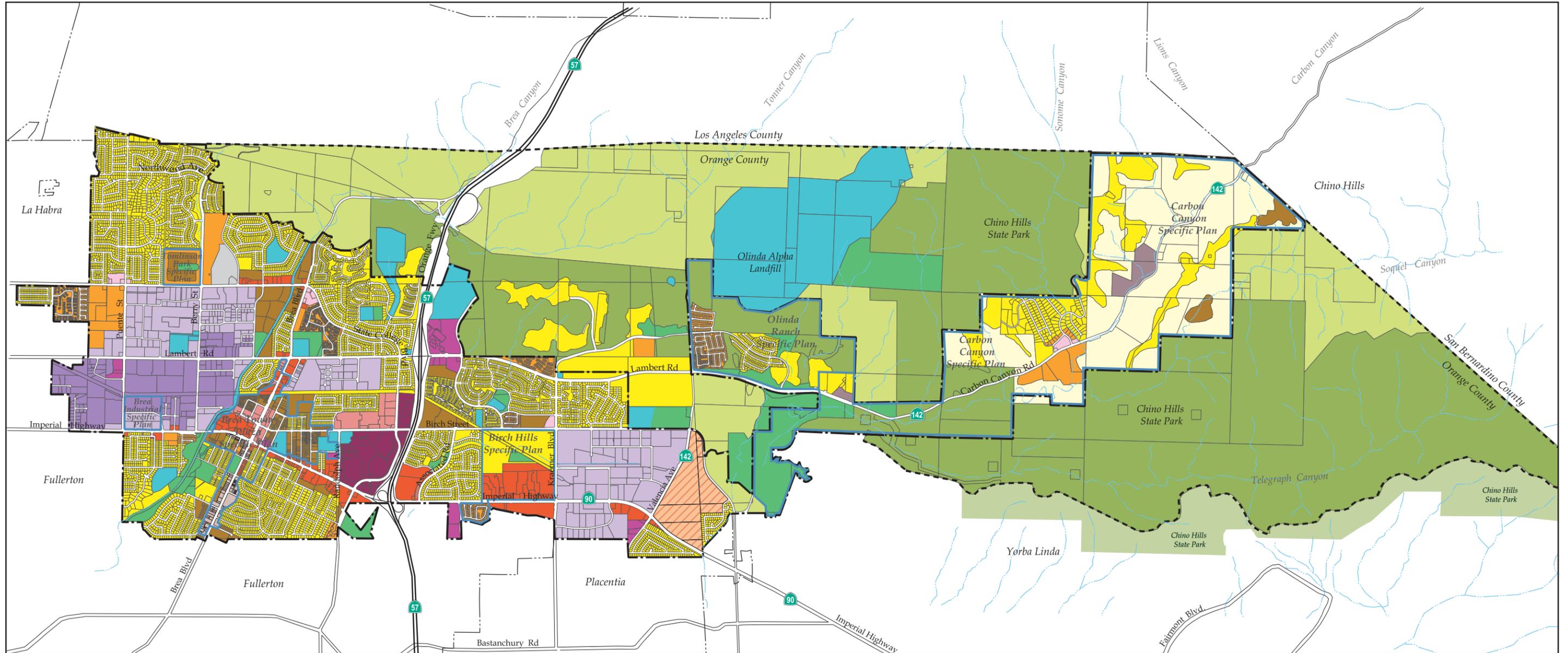
Figure CD-1: Examples of Floor Area Ratios (FAR)



The FAR controls the intensity of use on a lot. FAR is determined by dividing the gross floor area of all buildings on a lot by the land area of that lot. For example, a 20,000 square foot building on a 40,000 square foot lot yields a FAR of 0.50:1. A 0.50:1 FAR allows a single-story building, which covers half the lot, or a two-story building with reduced lot coverage.

Land Use Designations

The Land Use Policy Map (Figure CD-2) graphically represents General Plan goals and policies. The following land use designations correspond to the categories shown on the Land Use Policy Map.



Legend

- City Boundary
- Sphere of Influence
- Specific Plan Boundary

General Plan Land Use Designations

Residential Designations

- Hillside Residential
- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential

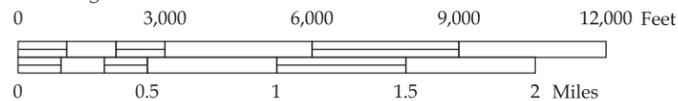
Mixed Use Designations

- Mixed Use I
- Mixed Use II
- Mixed Use III

Non-Residential Designations

- Regional Commercial
- General Commercial
- Neighborhood Commercial
- Recreational Commercial
- Office/Financial
- Light Industrial
- General Industrial

- Public Facilities
- Parks/Recreation/Open Space
- Natural Open Space
- Cemetery



Notes:

The Land Use Policy Map provides general guidance regarding the type and intensity/density of use permitted on a specific property. Users must consult the entire General Plan, the City's Zoning Ordinance, and the Hillside Development Ordinance to determine the extent to which a property may be developed and/or used.

To determine the residential density and development capacity allowed in the Hillside Residential designation, the Hillside Density Calculation Process (as described on page CD 2-19 to CD 2-24 of the Land Use Section in the Community Development Chapter) must be applied.



August 19, 2003

Figure CD-2
Land Use Policy Map

Residential Categories

Five residential land use designations are established to reflect the diverse residential character of Brea. The preservation and enhancement of existing single-family residential areas, particularly older established neighborhoods adjacent to City Hall Park, is a key goal. New development must be compatible with and complement existing residential neighborhoods. Special standards address residential development in the hillsides areas. Densities are stated as the number of housing units per net acre of developable land, excluding areas containing geological, slope, and related environmental constraints.

Hillside Residential

Unit Density: Based on calculated property slope
Population Density: approximately 3 persons/acre

Hillside Residential areas generally are located in hillside areas. Properties designated Hillside Residential are moderately to severely constrained by unique or significant features such as ridgelines, earthquake faults, steep and/or unstable slopes, creeks, sensitive habitat, sensitive wildlife species, mapped landslides, soil conditions, accessibility issues, and wildland fire hazards. Such properties are subject to the City's Hillside Management Ordinance.

Permitted uses include detached single-family residences and ancillary uses, limited commercial recreational uses with discretionary review, places for religious worship (with discretionary review), public schools, group homes, and public and private hiking trails and related facilities. Clustering of units is preferred to achieve protection of sensitive resources and avoid environmentally challenged areas.

Permitted density calculations are based on a three-step approach described beginning on page 2-19 of this chapter. The steps involve determining the maximum density allowed based on the average slope calculation for a property, identifying biological resources to be protected, and meeting performance standards crafted specifically for the hillsides.

Very Low Density Residential

Unit Density: 1-2 du/ac

Population Density: approximately 6 persons/acre

Areas designated Very Low Density Residential provide for very low-density, detached dwelling units on properties that are moderately constrained by topographic or geologic conditions, accessibility issues, and wildland fire hazards. Such properties may be subject to the Hillside Management Ordinance.

Permitted uses include detached single-family residences and ancillary uses, limited commercial recreational uses with discretionary review, places for religious worship (with discretionary review), public schools, group homes, and public and private hiking trails and related facilities.

Low Density Residential

Unit Density: 1-6 du/ac

Population Density: approximately 16 persons/acre

The Low Density Residential land use designation provides for the development of low-density single-family dwellings and accessory buildings. Types of uses include detached single-family homes and attached single-family residences (townhouses, row houses). Other uses permitted consistent with zoning ordinance requirements include:

- Group homes
- Religious and similar institutional facilities
- Public and private schools
- Hiking and other trails
- Public parks

Medium Density Residential

Unit Density: 6.1-12.0 du/ac

Population Density: approximately 32 persons/ acre

The Medium Density Residential designation provides for the development of medium-density single-family and multi-family dwelling units. The emphasis is on locating such development convenient to nonresidential uses that meet a variety of community needs. Permitted uses include detached and attached single-family homes, apartments, townhouses, condominiums, mobile home parks, and duplexes, all of which should provide varying amounts of open space and landscaping. Other uses permitted consistent with zoning ordinance requirements include:

- Group homes
- Religious facilities and similar institutional uses
- Public and private schools
- Hiking and other trails
- Public parks

High Density Residential

Unit Density: 12.1-24.89 du/ac

Population Density: approximately 67 persons/ acre

High Density Residential areas typically are located near transportation, shopping, and local employment. This designation permits the development of quality condominiums, apartments, townhouses, and senior housing, combined with varying amounts of open space and landscaping. Other uses permitted consistent with zoning ordinance requirements include:

- Group homes
- Religious facilities and similar institutional use
- Public and private schools
- Community care facilities
- Hiking and other trails
- Public parks

**Commercial and
Industrial
Categories**

Seven commercial and industrial land use designations are established to reflect the diverse range of general commercial, business, office, manufacturing, and industrial businesses important to Brea.

Neighborhood Commercial

Maximum FAR: 0.35

The Neighborhood Commercial designation provides for a variety of retail, office, and service-oriented business activities that serve a local neighborhood area and population. Site development standards encourage small projects that provide appropriate setbacks, parking, landscaping, buffering from residential land use areas, and other features that create well-designed, attractive projects. Public and private hiking trails and related facilities can be established within the Neighborhood Commercial designation.

General Commercial

Maximum FAR: 0.5

The General Commercial designation creates areas where a broad range of retail, office, and service-oriented business activities can locate. Business should be intended to serve a community-wide area and population. Public and private hiking trails and related facilities can be established within the General Commercial designation.

Regional Commercial

Maximum FAR: 0.65

The Regional Commercial designation is intended for diversified commercial uses serving a wide regional market area. Uses include large retail centers, the Brea Mall, service-oriented business activities, and other similar uses. Uses determined to be compatible may also be allowed. These uses should be located near the SR-57 freeway and major arterial highways due to vehicular travel demands. Public and private hiking trails and related facilities can be established within the Regional Commercial designation.

Recreational Commercial

Maximum FAR: 0.4

The Recreational Commercial designation accommodates commercial uses that specifically provide a recreational or leisure component as the focal use. Examples include destination hotels/resorts, private country clubs and similar facilities, and private stables. Public and private hiking trails and related facilities can be established.

Office/Financial Commercial

Maximum FAR: 1.5

The Office/Financial Commercial designation provides for single-tenant and multi-tenant offices that house professional, legal, medical, financial, administrative, research and development, corporate and general business offices, and other uses. Support uses appropriate within the areas designated Office/Financial Commercial include small convenience or service commercial activities intended to meet the needs of the on-site employee population. Public and private hiking trails and related facilities can be established within the Office/Financial Commercial designation.

Light Industrial

Maximum FAR: 0.75

The Light Industrial designation accommodates industrial uses that are low intensity and contained entirely within buildings. Allowable uses include research and development, light manufacturing and processing, offices, light warehousing and storage, high-technology production, and related uses. Other uses determined to be compatible may also be allowed. Public and private hiking trails and related facilities can be established within the Light Industrial designation.

General Industrial

Maximum FAR: 0.75

The General Industrial designation identifies lands used for larger-scale, heavier industrial activities in areas where possible hazards, noise, and other disturbances will not impact residential neighborhoods, schools, and similar uses. Allowable uses include

research and development, manufacturing and processing, offices, warehousing and storage, high-technology production, and related uses. Other uses determined to be compatible may also be allowed. Public and private hiking trails and related facilities can be established within the General Industrial designation.

Open Space and Recreation Areas

Parks and Recreation No Intensity Limit

The Parks and Recreation designation allows for a variety of active recreational uses, including neighborhood parks, community parks, specialty parks (for example, sports park, skateboard park, and/or golf course), and regional parks. This designation is intended to provide a variety of recreational opportunities that meet the diverse needs and interests of the community. Public and private hiking trails and related facilities are encouraged within the Parks and Recreation designation.

Natural Open Space No Intensity Limit

The Natural Open Space designation allows for passive outdoor activities and open space conservation. Within Natural Open Space areas, improvements will be limited to those necessary to facilitate access and accommodate walking, hiking, mountain biking, horseback riding, and wildlife and nature viewing. The designation is also intended to protect hillsides and major ridgelines, wildlife corridors, native vegetation communities, creeks and streams, wetlands, habitat areas, and other critical natural resources.

Mixed Use Designations

Mixed Use I Residential Density: 12.1 - 50 du/ac Population Density: approximately 135 persons/acre Maximum FAR: 3.00

The Mixed Use I designation provides areas for intense, mixed-use urban environments that offer opportunities for people to live, work, shop, and recreate without having to use their cars. This designation encourages vertical integration of compatible residential and commercial uses, whereby such uses share the

same building or lot. The Mixed Use I designation applies to Downtown Brea, and the Birch Street Corridor, as well as other infill sites located throughout the community with ready access to major roadways and public transit. Land uses specifically prohibited within the Mixed Use I designation include the manufacturing and processing of goods and materials, and any warehousing. Public and private hiking trails and related facilities can be established within the Mixed Use I designation.

Mixed Use II

Residential Density: 6.1 - 40 du/ac

Population Density: approximately 108 persons/acre

Maximum FAR: 2.00

The Mixed Use II designation provides opportunities for the coordinated development of urban villages that offer a diverse range of complementary land uses in close proximity to one another. Either vertical or horizontal integration of uses is permitted, with an emphasis on tying together the uses with pedestrian linkages. Residential densities at the higher end of the scale will be permitted for developments that clearly integrate uses.

The Mixed Use II designation applies to the Unocal Research Center property and similar larger properties that would benefit from a coordinated, integrated approach to development. Development densities and intensities at the upper end of the stated range will only be permitted for those projects that include public and/or private educational facilities, as well as functional and attractive public open space amenities. Land uses specifically prohibited within the Mixed Use II designation include regional-serving retail uses, the manufacturing and processing of goods and materials, and any warehousing. Public and private hiking trails and related facilities can be established within the Mixed Use II designation.

Mixed Use III

Residential Density: 6.1 – 18 du/ac

Population Density: approximately 50 persons/acre

Maximum FAR: 1.00

The Mixed Use III designation provides opportunities for the revitalization of deteriorated commercial centers by allowing the development of neighborhood-serving commercial uses and very low intensity offices paired with housing. Either vertical or horizontal integration of uses is permitted, with an emphasis on tying together the uses through pedestrian linkages and public open space, such as linkage parks or small plazas. Building forms would be less intense than those found in either Mixed Use I or II.

The Mixed Use III designation applies to specific properties within the Brea Towne Plaza Specific Plan, primarily those that front South Brea Boulevard and a portion of Imperial Highway. Land Uses specifically prohibited within the Mixed Use III designation include regional-serving retail uses, general industrial uses, and any warehousing. Public walkways and related facilities can be established in Mixed Use III designation.

Other Designations

Public Facilities

Maximum FAR: 1.0

The Public Facilities designation applies to existing and potential public facilities. These facilities have been so designated to acknowledge their location and ensure that suitable areas will be set aside to accommodate schools, government offices, post offices, fire and police stations, community centers, sewer and water facilities, and the Olinda-Alpha Landfill. Public and private hiking trails and related facilities can be established within the Public Facilities designation.

Cemetery

No Intensity Limit

The Cemetery designation applies to properties developed specifically for interment of the deceased and related purposes, including crematoriums, mausoleums, mortuaries, and maintenance facilities.

Specific Plans

The land use designations establish basic guidelines for property development: permitted uses and maximum permitted development densities. Further requirements are spelled out in the City's zoning ordinance, the primary tool used to implement land use policy. Specific Plans represent a second tool; Specific Plans provide a detailed plan for development within a particular area that may or may not reflect standard zoning ordinance requirements. Several Specific Plans have been approved, and these plans dictate the types of uses permitted, applicable development standards (setbacks, heights, landscape, architecture, etc), and circulation and infrastructure improvements required. Figure CD-2, the Land Use Policy Map, indicates the boundaries of the following Specific Plans:

- Birch Hills
- Brea Industrial
- Brea Towne Plaza
- Carbon Canyon
- Olinda Heights (Ranch)
- Tomlinson Park

The City will continue to use these adopted plans to guide development of properties within the various Specific Plan boundaries. As a general practice, however, the City will discourage further use of Specific Plans unless circumstances indicate that a Specific Plan represents the best method of achieving a cohesive land use plan for a property or related properties.

Hillside Development Policy

The hillsides represent a resource long valued for the scenic, open space, and biological resources they offer. The community has long identified its desire to preserve the hillsides as undeveloped open space. However, most properties are privately held, and the City must allow property owners to obtain some economic value from their lands, either by continuing to exploit the oil resources buried deep within the earth below or by transitioning the properties, where safe to do so, to some other economically viable use.

To balance its preservation goals with the realities of land use law, the City has crafted an approach to regulating the type, location, density, and intensity of residential development permitted, that works to protect sensitive lands. On a given property designated

Hillside Residential, the level of development that can take place is based on hillside development policies and the City's goals to preserve riparian areas, creeks, streams, wetlands, and wildlife habitat; slope; avoid oil production hazards (ongoing and residual); avoid earthquake fault zones; minimize fire hazards; require adequate levels of public services; and meet project-related and cumulative infrastructure demands. At the same time, incorporating growth management policies is also important given the isolated nature of the hillside areas relative to infrastructure and public services.

Hillside Density Calculation Process

Calculating density yield involves a three-step approach. The first step involves establishing a maximum allowable residential density/yield on a given property based on average property slope. The second step requires the developer to identify opportunities and constraints to be considered in the drafting of a development plan. Third, the developer must demonstrate compliance with specified performance criteria.



Breaans and visitors to the community enjoy the hills that frame the City.

Step 1: Establish Allowed Density Based on Average Slope

The slope of a hillside is a major determining factor on how much development on a hillside can take place. It determines the extent of grading, cut-and-fill activity, hillside erosion, and the placement and configuration of lots. An important concept to understand is that the steeper the slope, the more difficult – and costly – it is to build on that slope. The maximum allowable density based on the following average property slope ranges:

**Table CD-2
Allowed Density Based on Average Slope**

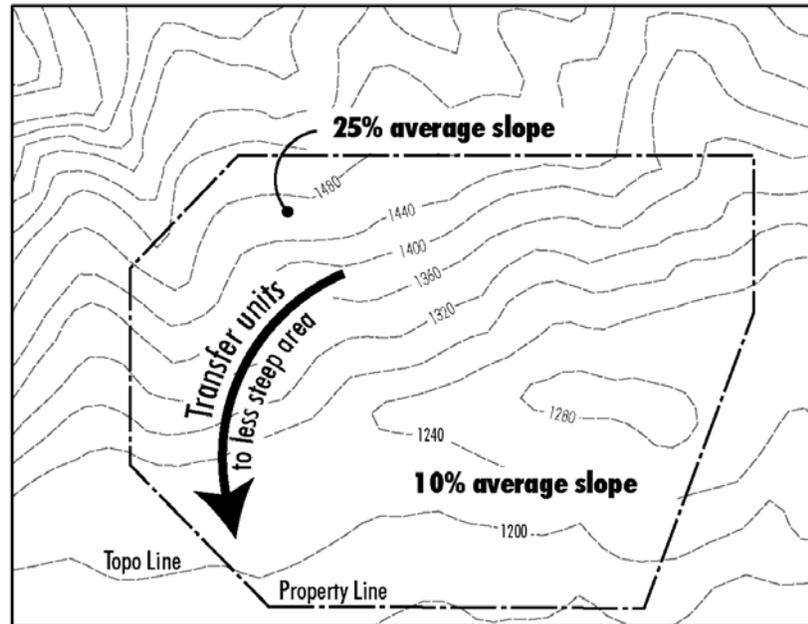
Average Slope	Maximum Allowable Density
Less than 10%, inclusive	2.2 units/acre
10.1 – 20%	1.6 units/acre
20.1 – 25%	1 unit/acre
25.1-30%	1 unit/5 acres
Greater than 30%	1 unit/20 acres

The maximum allowed yield will be considered a maximum limit and not an entitlement. Property owners may not be able to achieve the maximum number of units allowed on a given piece of land. Other factors, described below, must be considered in determining the unit yield (the so-called carrying capacity of a property).

Density transfers from one portion of a property to a more developable area will be permitted. As an example (see Figure CD-3), consider a 50-acre property with 30 acres having an average slope of 10% (maximum 2.2 units/acre) and the remaining 20 acres with a 25% slope (maximum 1 unit/acre). To avoid building on the steeper slopes, the developer may opt to transfer the 20 units allowed on the 25% slope land to the other portion of the property, essentially clustering units on less steep terrain.

Developers may opt to transfer units from very steep terrain to flatter portions of the same property, thus clustering residential units in a more developable area.

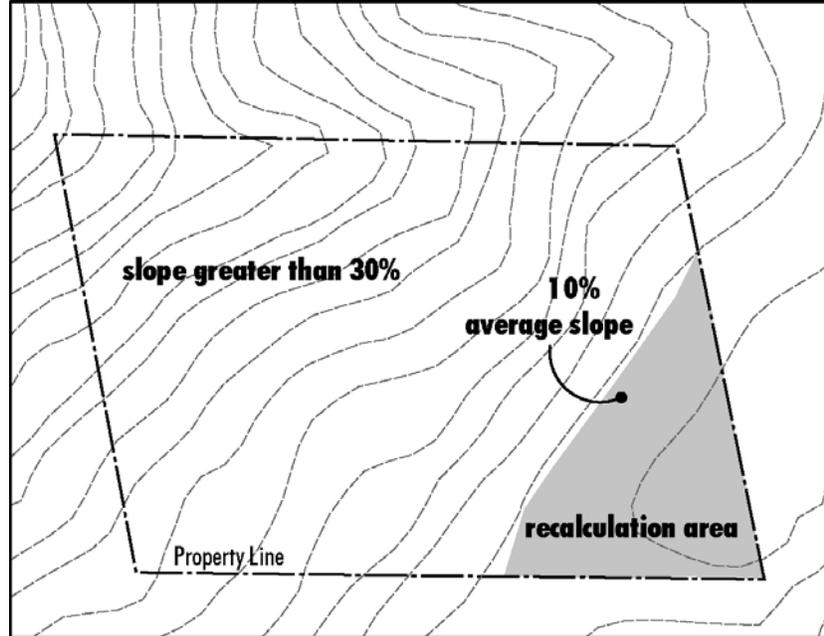
Figure CD-3: Example of Unit Transfer



As an alternative to the density transfer approach, a developer may exercise the option of identifying large contiguous areas of where the slope is 25% or less on a property. This area may be used as the basis for a recalculation of the average slope for that portion of the property (see Figure CD-4). Based on this recalculation, the appropriate maximum allowable density range may then be applied to that portion of the property (still subject to Steps 2 and 3), with the remainder of the property thereby preserved from future development as a condition of this option. For example, a 100-acre property with an average slope of 30% would be allowed a maximum of 1 unit per 20 acres under the slope density formula. If there were no other constraints on the property (Step 2) and all performance criteria could be met (Step 3), this would yield a maximum of 5 units for the 100-acre property. However, within this 100-acre property there could exist a contiguous 10-acre portion that has an average slope of 10%. The developer could opt to have the average slope recalculated on this piece of property, thereby yielding 2.2 units per acre, or 22 units for the 10-acre piece, subject to further evaluation through Steps 2 and 3. The developer would then be required to preserve the remainder of the property from further development as a consideration for the average density recalculation. The preservation of the remaining property could be achieved through a conservation easement, approved in form and content by the City Attorney, or other mechanism satisfactory to the City. The preserved property cannot be counted toward any open space requirements of the actual development itself.

Developers may opt to recalculate the slope for areas that are not as steep.

Figure CD-4: Example of a Recalculation of Average Slope



Step 2: Identify Opportunities and Constraints

Goals for hillside areas clearly identify the community's desire to protect important visual, biotic, and open space resources. In addition, developing in areas that contain significant environmental resources is often more costly and more time consuming due to the need for higher level regulatory agency permits. Thus, the second step in the land use determination process involves identifying significant on-site resources that must be protected. Resources to be considered include, but are not limited to:

- Ridgelines (as identified in the City's Hillside Development Ordinance)
- Blueline streams
- Riparian habitat areas
- Other unique/sensitive habitats (woodlands and chaparral)

In determining the area available for development on a given property, the owner is encouraged to eliminate from consideration those areas containing these significant resources.

Another area requiring special consideration is the Alquist-Priolo Earthquake Fault Zone. State law limits the type of structures that can be built within the vicinity of active earthquake fault zones. Owners of properties affected by the designated fault zone will be required to undertake special studies and avoid development within constrained areas. No density transfers will be allowed from such affected areas.

Step 3: Conformance with Performance Criteria

Developers will be required to meet performance criteria when developing in the hillside areas. The following provide examples of the criteria to be used.

1. Development will be subject to the Hillside Management Ordinance.
2. All development must be located within an “X”-minute response zone for emergency services.
3. No road shall have a grade in excess of “Y”%.

Precise mechanisms for implementing this three-step approach are detailed in the Hillside Management Ordinance.

The allowed density applicable to hillside property, which is the subject of a development entitlement application, may be increased to the extent necessary to avoid the unconstitutional taking of the subject property. Any such increase shall be the subject of a finding by the Planning Commission or City Council, whichever is the final administrative body considering the application. The finding shall be supported by substantial evidence introduced during the hearing on the issue conducted by the Planning Commission and/or City Council.

Goals and Policies

The following goals and policies address issues first of a citywide relevance and then those pertaining to specific focus areas within the planning area.

Citywide

Brea is a diverse community. To continue this diversity, new development must be compatible with the established urban fabric. Residential, commercial, industrial, parks, and open space are to provide a balance and mixture of uses, not only complementing the existing community, but accommodating future needs and desires of the community.

Goal CD-1	Provide a balance of land uses to meet the present and future needs of all residents.
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Policy CD-1.1 Create neighborhoods that effectively integrate single-family and multi-family housing with convenience and neighborhood shopping centers, park and recreation areas, and other uses appropriate for the neighborhoods.

Policy CD-1.2 Maintain a land use structure that balances the provision of jobs and housing with available infrastructure and public and human services.

Policy CD-1.3 Endeavor to create a mixture of employment opportunities for all economic levels of citizens.

Policy CD-1.4 Ensure that the City maintains a balance among residential, commercial, and industrial land uses.

Policy CD-1.5 Provide opportunities for development of housing that responds to diverse community needs in terms of density, size, location, design, and cost.

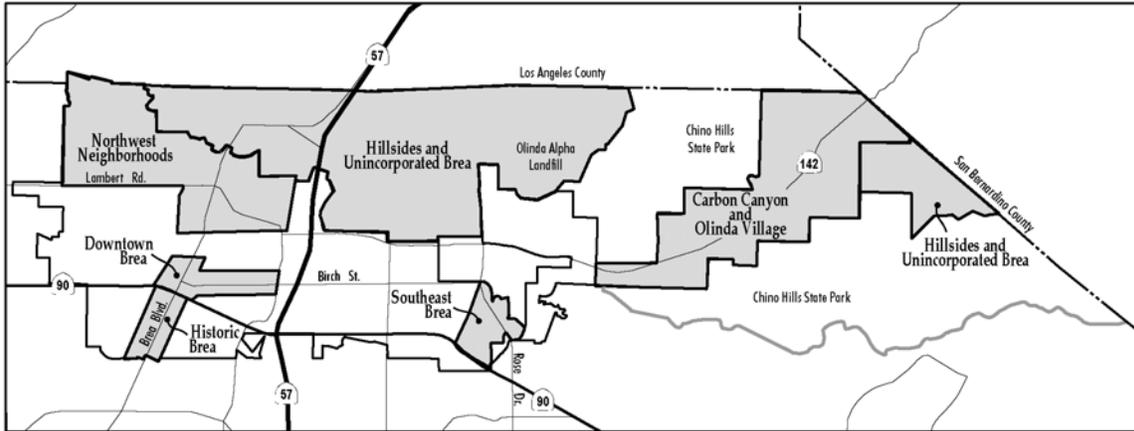
Policy CD-1.6 Accommodate a broad range of business uses that provide employment at all income levels and that make a positive contribution to the City's tax base.

- Policy CD-1.7 Create and maintain linked open spaces and pedestrian access that serve the entire community.
- Policy CD-1.8 Connect, where possible, all neighborhoods of the community and surrounding areas located within the City and Sphere of Influence with greenways and well-planned, well-located park areas. Maximize connections to hillside and open space areas.
- Policy CD-1.9 Encourage new development that is organized around compact, walkable, mixed-use neighborhoods and districts to conserve open space resources, minimize infrastructure costs, and reduce reliance on the automobile.
- Policy CD-1.10 Preserve open space wherever possible, especially in the hillside areas.
- Policy CD-1.11 Maintain a mixture of business and retail uses within the community.
- Policy CD-1.12 Preserve existing older but well-maintained neighborhoods.
- Policy CD-1.13 Address “mansionization” in the community.
- Policy CD-1.14 Update and enforce the Neighborhood Preservation Ordinance.
- Policy CD-1.15 Strongly encourage the master planning of any large contiguous land holdings.
- Policy CD-1.15 Strongly encourage the rezoning and annexation of unincorporated properties in the City of Brea in order to avoid the creation of new County islands.

Focus Areas Specific goals and policies have been developed for six distinct areas (Figure CD-5) that need special planning attention:

- Northwest Neighborhoods
- Downtown Brea
- Historic Brea
- Carbon Canyon and Olinda Village
- Hillsides and Unincorporated Brea
- Southeast Brea

Figure CD-5 Focus Areas



Northwest Neighborhoods

The northwest corner of Brea contains a mix of residential neighborhoods, including several senior housing developments. The edges of several northern neighborhoods abut undeveloped open space in unincorporated Orange County. Most of the homes were built between the 1950s and 1970s, with some newer tracts built in the 1980s and 1990s. Given the age of the homes, focused attention will be required to maintain the quality of the neighborhoods.

A key opportunity exists to revitalize aging commercial strips with either new neighborhood-serving commercial centers or mixed-use developments that provide both needed housing and local commercial shops and services.

Goal CD-2 Preserve and enhance the character of neighborhoods in northwest Brea.

Policy CD-2.1 Ensure that the design of new residential developments is sensitive to the character of existing neighborhoods.

- Policy CD-2.2 Ensure that new developments are integrated with established neighborhoods through a network of street and pedestrian connections.
- Policy CD-2.3 Pursue circulation improvements that promote safe vehicle speeds. Utilize creative methods to reduce speeds, and improve circulation such as timed traffic lights and traffic calming devices.
- Policy CD-2.4 Preserve existing neighborhood characteristics, including tree-lined streets, sidewalks, and building orientation.
- Policy CD-2.5 Improve existing small, commercial centers to improve access, aesthetics, and business success.

Goal CD-3	Improve access to transportation, shopping, and community services throughout existing neighborhoods.
------------------	--------------------------------------------------------------------------------------------------------------

- Policy CD-3.1 Promote greater mobility through pedestrian improvements and improved transit access.
- Policy CD-3.2 Increase the number and variety of services, transportation access, and activity centers for seniors.
- Policy CD-3.4 Encourage local retail businesses to serve the Northwest area.
- Policy CD-3.5 Provide visual links between the Northwest area Downtown Brea.
- Policy CD-3.6 Provide appropriate and accessible public transportation service to the Northwest neighborhoods.

Downtown Brea

The success of Downtown can be attributed to its integration of residential and commercial land uses. Brea residents and visitors from surrounding communities enjoy the shopping, entertainment, and dining available within a compact, pedestrian-friendly area. Linking surrounding neighborhoods to Downtown Brea is vital to the continued success of Downtown.

Goal CD-4	Maintain and improve the vitality, economic strength, accessibility, and livability of Downtown.
------------------	---------------------------------------------------------------------------------------------------------

- Policy CD-4.1 Explore economic and employment opportunities to diversify the business mix in Downtown.
- Policy CD-4.2 Improve transportation, pedestrian, and visual connections between Downtown and the rest of the community.
- Policy CD-4.3 Utilize traffic calming measures as appropriate to improve safety and access.
- Policy CD-4.4 Extend mixed-use development from Downtown along the Brea Boulevard and Birch Street corridors.
- Policy CD-4.5 Create large interactive and inviting public spaces.
- Policy CD-4.6 Build linkages between Downtown and the Civic Center/Brea Mall area.
- Policy CD-4.7 Encourage the use of historic features in the Downtown area.
- Policy CD-4.8 Explore the use of a trolley system to serve Downtown and surrounding areas.

Historic Brea

Neighborhoods in southwest Brea contain a concentration of homes dating to the early twentieth century. City Hall Park is a unique and treasured community resource, containing Brea’s Old City Hall, the Brea Plunge, and the Old American Legion Hall. The South Walnut residential neighborhood surrounding City Hall Park contains many structures 80 to 90 years old that have not been properly repaired and are in danger of ruin. Many of these structures exhibit craftsmanship characteristic of their era and incorporate unique materials.

South Brea Boulevard serves as the primary arterial for the neighborhoods to the east and west of it. While the street is primarily oriented toward automobile uses, its current mix of

services and shops is relatively accessible to the pedestrian, and the street functions as a community gathering place as neighbors meet while running errands or at local restaurants. Many of the commercial properties, however, are deteriorated and in need of revitalization. In addition, improvements to the pedestrian environment would enhance this area that serves as the “public living room” for the neighborhoods to the east and west of the Boulevard. Preserving the unique community environment that exists on this thoroughfare today, while providing for opportunities to revitalize the commercial uses, create appropriate housing opportunities, improve pedestrian accessibility, and avoid impacts on surrounding neighborhoods, is a priority for this area.

Goal CD-5	Preserve Brea’s unique historic and cultural resources and neighborhoods.
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Policy CD-5.1 Ensure new development is compatible with the style, theme, and design of established structures and neighborhoods.

Policy CD-5.2 Promote preservation of historic single-family homes by ensuring that General Plan and zoning designations reflect the single-family nature of specific neighborhoods, and by providing City resources or incentives that foster rehabilitation.

Policy CD-5.3 Provide landscaping and amenities that complement historic resources and neighborhoods.

Policy CD-5.4 Ensure that development within and surrounding City Hall Park respects and responds to this important resource.

Policy CD-5.5 Create an easily identifiable historic district in Brea that is closely linked with Downtown.

Policy CD-5.6 Establish design guidelines of standards for commercial development on South Brea Boulevard that respect and complement the historic character of surrounding neighborhoods.

Policy CD-5.7 Establish a program that would enable historic neighborhoods to be designated as either a landmark district or historic overlay zone.

Goal CD-6	Provide for the revitalization of the South Brea Boulevard Core.
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- Policy CD-6.1 Encourage redevelopment of South Brea Boulevard properties through economic development.
- Policy CD-6.2 Where housing is a component of a project within properties in the Mixed Use III area, the development of ownership housing opportunities shall be encouraged.
- Policy CD-6.3 Ensure that traffic generated by new development along South Brea Boulevard, particularly where that traffic generated by new residential development, takes ingress/egress from South Brea Boulevard and is not directed into neighborhood streets.
- Policy CD-6.4 Develop programs, such as traffic calming, that discourage use of neighborhood streets for regional cut-through traffic.
- Policy CD-6.5 Encourage the inclusion of open spaces, linkage parks, street trees, and enhanced pedestrian amenities on South Brea Boulevard.

Carbon Canyon and Olinda Village

Carbon Canyon contains important biological habitat. Prior community visioning programs have emphasized the community’s ideas regarding resource preservation. Olinda Village is a distinct residential neighborhood within Carbon Canyon. The rural character of the area, together with the development constraints imposed by topography, geologic conditions, and the configuration of Carbon Canyon Road, a State highway, may limit land use opportunities within Carbon Canyon.

Goal CD-7	Create an environment in Carbon Canyon that balances the community’s long-term housing needs with community open space, habitat conservation, and public safety goals.
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- Policy CD-7.1 Base allowable development on the ability of infrastructure, landforms, physical constraints, and emergency response capabilities to support new development.

- Policy CD-7.2 Preserve key wildlife migration corridors and habitat areas within Carbon Canyon.
- Policy CD-7.3 Allow and encourage clustering of housing as a means of protecting resources.
- Policy CD-7.4 Require that development preserve prominent landforms consistent with the City's hillside management ordinance.
- Policy CD-7.5 Limit commercial uses in Olinda Village to those that serve local neighborhood needs.
- Policy CD-7.6 Preserve a rural atmosphere in Olinda Village.
- Policy CD-7.7 Consider establishing a transfer of development rights (TDR) ordinance that would apply to Carbon Canyon as a means of preserving sensitive hillside areas.
- Policy CD-7.8 Consider alternatives to a specific plan for regulating land use within the Carbon Canyon area.

Hillsides and Unincorporated Brea

Brea values the hillsides. Landowners will continue to seek entitlements for development, and the City will continue to balance development interests with broader community preservation goals.

Goal CD-8	Minimize the extent of urban development in the hillsides, and mitigate any adverse consequences associated with urbanization.
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- Policy CD-8.1 Aggressively pursue methods to preserve open space and natural habitat, including but not limited to:
- 1) Negotiating with property owners during the development process
 - 2) Regulating preservation of ridgelines and hillsides
 - 3) Acquiring private lands using City funds, State and Federal funds, grants, bonds, or assessment districts

- 4) Mitigation banking
- 5) Transfer of development rights

- Policy CD-8.2 Base allowable development on the ability of infrastructure, landform, physical constraints, and emergency response capabilities to support new development.
- Policy CD-8.3 Require developers to employ sustainable approaches to development and environmentally sensitive design.
- Policy CD-8.4 Ensure that Olinda Landfill operations allow for eventual reclamation and reuse of the property for open space purposes.
- Policy CD-8.5 Support efforts of State and federal agencies and private conservation organizations to acquire properties for open space and conservation uses.
- Policy CD-8.6 Ensure that any new development that does occur is integrated effectively into the existing City via convenient street and/or pedestrian connections, as well as visual connections.
- Policy CD-8.7 Work closely with the County of Orange and emphasize the City's need to participate in the development review process of projects proposed in surrounding unincorporated areas. Work to ensure that such developments proceed consistent with City standards.
- Policy CD-8.8 Ensure that height and density levels are limited for development in hillside areas or in areas of steep topography in order to preserve life safety.

Southeast Brea

Southeast Brea includes the Unocal Research Center property and other surrounding former oil-use-related and agricultural properties that are expected to transition over time to other uses.

Goal CD-9	Create a dynamic, mixed-use urban village that integrates a range of housing types (including senior housing), moderate-intensity commercial uses, educational and public uses, and parks.
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Policy CD-9.1 Ensure that new commercial uses complement rather than compete with businesses along Imperial Highway and in Downtown.

Policy CD-9.2 Accommodate emerging housing trends, and encourage pedestrian linkage to surrounding neighborhoods and activity centers.

Policy CD-9.3 Encourage the establishment of community recreation and park facilities in the area.

Policy CD-9.4 Support efforts to establish quality, community institutions in the area.

Policy CD-9.5 Provide quality, affordable housing that would accommodate young families, college students, and educators.

Policy CD-9.6 Preserve open space within this area, and provide outdoor recreation facilities.

Policy CD-9.7 Strongly encourage the master planning of any large contiguous land holdings in this area.

Policy CD-9.8 Strongly encourage the rezoning and annexation of the unincorporated properties in this area into the City the Brea in order to avoid the creation of new County islands.



See Section I of the Implementation Guide for action programs.

Implications of Land Use Policy

Over time, as properties recycle to new uses and vacant lands are developed, the distribution of uses within the community will change. Table CD-3 on the following page summarizes the distribution of uses and shows that buildout of the planning area pursuant to Land Use policy will allow many new residents to call Brea “home.”

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**Table CD-3
Implications of Land Use Policy**

	Assumptions				Net Acres			Projected Dwelling Units / Households			Projected Non-Residential Square Feet (Thousands)			Projected Population		
	Maximum Du/Acre	FAR	Average Du/Acre ¹	FAR ²	Existing City	Sphere of Influence	Total	Existing City	Sphere of Influence	Total	Existing City	Sphere of Influence	Total	Existing City	Sphere of Influence	Total
Residential Land Use Designations																
Hillside Residential ³					46	1,609	1,655	262	986	1,248				693	2,609	3,302
Very Low Density Residential	2		0.5		821	8	829	410	4	414				1,086	10	1,096
Low Density Residential Developable	6		5		1,161	293	1,454	5,805	1,464	7,269				15,360	3,872	19,233
Non-Developable (easements/open space)					134		134									
Medium Density Residential	12		10		311	12	323	3,105	120	3,225				8,217	318	8,534
High Density Residential	24.89		20		259		259	5,119		5,119				13,545		13,545
Commercial and Business Land Uses																
Regional Commercial		0.65		0.39	102		102				1,727		1,727			
General Commercial		0.5		0.25	216		216				2,353		2,353			
Neighborhood Commercial		0.35		0.3	14		14				179		179			
Recreational Commercial		0.4		0.1	49		49				215		215			
Office/Financial		1.5		0.4	72		72				1,249		1,249			
Light Industrial		0.75		0.4	655		655				11,421		11,421			
General Industrial		0.75		0.4	310		310				5,402		5,402			
Open Spaces																
Parks/Recreation/Open Space		0.5		0.1	322	166	488				1,401	724	2,125			
Natural Open Space		0		0	451	3,356	3,807									
Agriculture		0.25		0.1	0		0									
Other Land Uses																
Mixed Use I					58		58									
Residential (20% of total)	50		20		12		12	232		232				614		614
Commercial (80% of total)		3.0		1.0	46		46				2,022		2,022			
Mixed Use II					119		119									
Residential (72% of total)	40		15		86		86	1,326		1,326				3,508		3,508
Commercial (20% of total)		2.0		0.5	24		24				518		518			
Parks/Open Space (8% of total)					10		10									
Mixed Use III					25		25									
Residential (72% of total)	18		15		18		18	279		279				738		738
Commercial (20% of total)		2.0		0.5	5		5				109		109			
Parks/Open Space (8% of total)					2		2									
Public Facilities		1.0		0.4	177	481	659				3,092	8,385	11,477			
Cemetery					25		25									
TOTAL					5,351	5,925	11,250	16,538	2,573	19,112	29,687	9,109	38,797	43,760	6,809	50,570

Assumptions and Estimates

1. Average assumptions derived from TAZ existing land use analysis
2. Estimates and assumptions derived from TAZ existing land use analysis
3. Density slope calculation used to determine number of units

Additional Assumptions

- 2.7 Persons per Household
- Vacancy Rate of 1.6% per 2000 Census

CIRCULATION

Moving people and goods between destinations within the urban environment efficiently and effectively allows a community to function well economically and socially. People should be able to circulate within their community from home to school, work, or shopping with ease and safety. Alternatives to the private car – transit, biking, walking, and carpooling – can offer choice and convenience. Goods must also be easily transported locally and regionally to retain a working economy.

This Circulation section guides continued development of the circulation system to support planned growth. New development will increase use of local and regional roadways, and the plan and policies here identify strategies the City will pursue to maintain good service levels. Because local circulation is linked with the regional system, policies highlight Brea’s continued need to participate in regional programs to alleviate traffic congestion through capacity enhancements and trip reduction. Reduced dependency on the automobile works toward these goals and also improves environmental quality.

Context

When considering circulation, we think of both the physical infrastructure systems – the roadways, rails, and trails – as well as the method of getting around, by car or bike or bus or on foot. In Brea, the physical system includes the local street network and several routes of regional significance: State Route 57, Carbon Canyon and Lambert Roads, Brea Boulevard, and Imperial Highway. While these regional roads provide Breans with ready access to surrounding destinations, the roads also bring regional traffic into and through the City. Much of the traffic traveling on the freeway, Carbon Canyon Road, and Imperial Highway during peak periods simply passes through Brea to other employment centers.

Regional Transportation Planning

As part of a large metropolitan area and of necessity, Brea has integrated its local street system with existing and planned regional and local systems. Transportation planning and management require cooperation and coordination among local cities and the Orange County Transportation Authority (OCTA), as well as jurisdictions and agencies in adjacent Los Angeles County. Working together, agencies can address the physical infrastructure needed to support regional demands and to ensure that

convenient alternative transportation modes allow for an integrated approach to addressing traffic problems.

In Orange County, OCTA has adopted the County of Orange Master Plan of Arterial Highways (MPAH) to define the intended future roadway system for the County. All cities, including Brea, must reflect the MPAH in their General Plans to receive Measure M transportation funds. OCTA also is responsible for administering the State-mandated Congestion Management Program, or CMP. The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions.

The California Department of Transportation (Caltrans) has authority over the State highway system, including mainline facilities and interchanges. Caltrans must be involved in and approve the planning and design of improvements for state highway facilities. State highway facilities in Brea include State Route 57 and associated interchanges, Imperial Highway, Carbon Canyon Road, Valencia Avenue, and Imperial Highway.

Transportation Services

OCTA provides transit and paratransit service within the Brea planning area and throughout Orange County. The agency also coordinates commuter rail service in the County, including leading efforts to construct light rail routes consistent with adopted plans. To supplement this service for more localized needs, the City operates the Brea Shuttle Express, a curb-to-curb transportation shuttle.

Master Plan of Countywide Bikeways

The County's *Master Plan of Countywide Bikeways* designates locations and classes of bike routes in unincorporated areas and through cities. The primary aim is to provide consistency between the countywide and local jurisdiction bikeway plans. The Brea bikeway plan in this chapter utilizes the countywide classification system and links to County routes.

The Street System and Master Plan of Roadways

Brea's street system is defined by a hierarchical classification system, with roadway functional classifications differentiated by size, function, and capacity. The categories are:

Freeway: Freeways are limited-access, high-speed travelways included in the State and federal highway systems. Their purpose is to carry regional through traffic (traffic passing through Brea

without stopping). Access is provided at interchanges. State Route 57 is the only local freeway connecting Brea to regional destinations.

Major Arterial: Typically constructed within a right-of-way of 120 feet, with a curb-to-curb pavement width of 102 feet, this roadway has a maximum capacity of 56,300 average daily trips and a peak-hour capacity of 5,630 trips. Major Arterials carry a large volume of regional traffic not handled by the freeway. They are typically six-lane, divided roadways. The roadway geometrics and right-of-way width may vary depending on localized conditions.

Primary Arterial: Typically constructed within a right-of-way of 100 feet, with a curb-to-curb pavement width of 84 feet, this roadway has a maximum capacity of 37,500 average daily trips and a peak-hour capacity of 3,750 trips. The roadway geometrics and right-of-way width may vary depending on localized conditions. A Primary Arterial's function is similar to that of a Major Arterial, with the principal difference being capacity. Primary Arterials are typically four-lane divided roadways.

Modified Secondary Arterial: A Modified Secondary Arterial is a two- to four-lane roadway constructed within a right-of-way of 100 feet, with a varying curb-to-curb pavement width, depending upon the number of lanes provided. The street functions similar to a Secondary Arterial. The right-of-way not improved with paved lanes can be used for a bike path or lane, multi-use trail, and extensive landscaping.

Secondary Arterial: Typically constructed within a right-of-way of 80 feet with a curb-to-curb pavement width of 64 feet, Secondary Arterials serve as collectors that distribute traffic between local streets and four- to six-lane divided arterials. The maximum roadway capacity is 25,000 average daily trips and 2,500 peak-hour trips.

Collector Roadway: A Collector roadway is a two- to four-lane unrestricted access roadway with capacity ranging from 12,500 average daily trips for two-lane undivided to 25,000 average daily trips for four-lane roads (with peak-hour capacities of 1,250 and 2,500, respectively.) By strict definition, a Collector facility is not an arterial highway. It differs from a local street in its ability to handle through traffic movements between arterials.

Local Roadway: A local roadway provides direct access to abutting properties as their primary function. Local streets rarely have more than two travel lanes, and speed limits are generally kept low (25 miles per hour).

Smart Street: In addition to the arterial classification, the MPAH recognizes Smart Streets as arterials with enhanced traffic-carrying capacity. Such enhancements include:

- Addition of through or turn lanes
- Preferential traffic signal timing and synchronization
- Removal of on street parking
- Intersection grade separations
- Grade separated turning movements
- Access limitations
- Access consolidations
- Frontage roads
- Pedestrian grade separations

Figures CD-6 and CD-7 show schematic cross sections of each category of arterial and collector roadway. These sections represent desirable standards, but variation in right-of-way width and specific road improvements will occur in certain cases due to physical constraints and/or right-of-way limitations. In particular, the median width of Major and Primary Arterials will vary according to the area being served, right-of-way constraints, and turn lane requirements. Any of the Arterial classifications may deviate from the standards where physical constraints exist or where preservation of community character dictates special treatment.

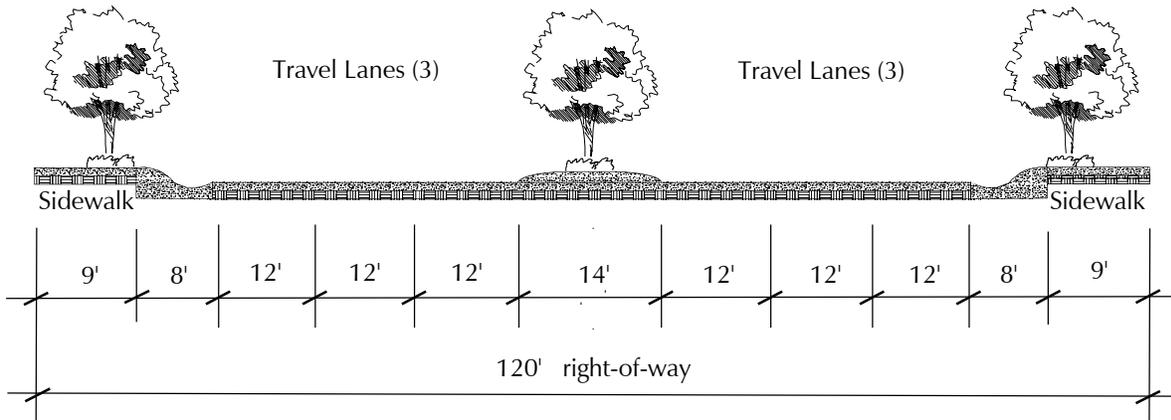
Bikeways and sidewalks also affect the specific standards applied to various facilities. Another design consideration is the need to comply with Brea capacity requirements. The overriding circulation goal is that all roadways carry the designed volumes of traffic at the desired level of service.

Level of Service Standards

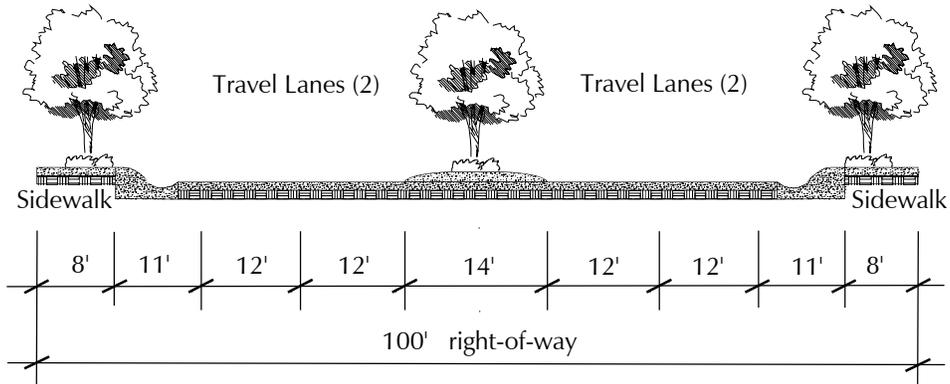
Evaluating the ability of the circulation system to serve Brea's residents and businesses requires establishing suitable performance criteria. Performance criteria have a policy component that establishes a desired level of service and a technical component that specifies how traffic forecast data can be used to measure the achievement of the criteria.

For Brea, the volume-to-capacity (V/C) ratio represents the criteria used to measure level of service. A V/C ratio is calculated based on average daily traffic volumes on a roadway and the daily capacity value for that roadway. A level of service (LOS) scale is used to evaluate roadway performance based on the V/C ratio. The levels range from "A" to "F", with LOS A representing free-flow traffic and LOS F representing extreme congestion, with traffic

Major Arterial



Primary Arterial



Modified Secondary Arterial

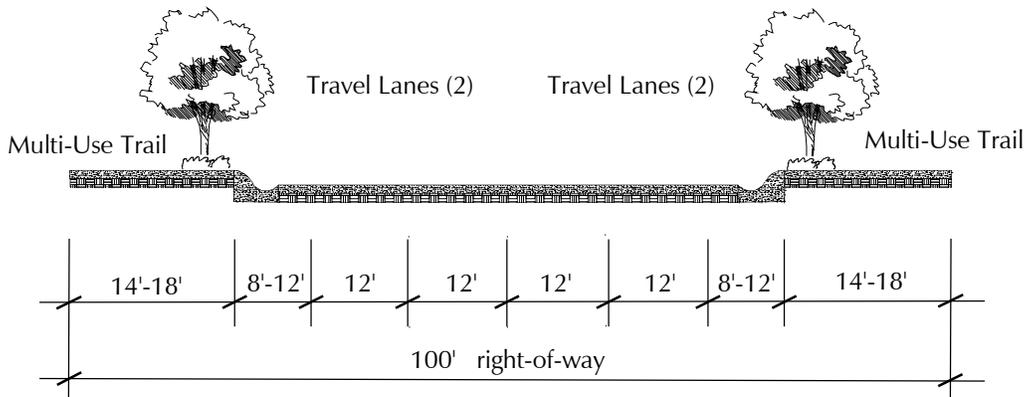
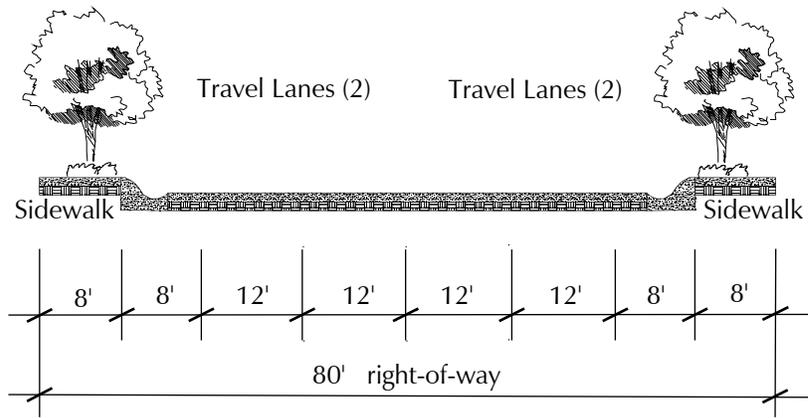
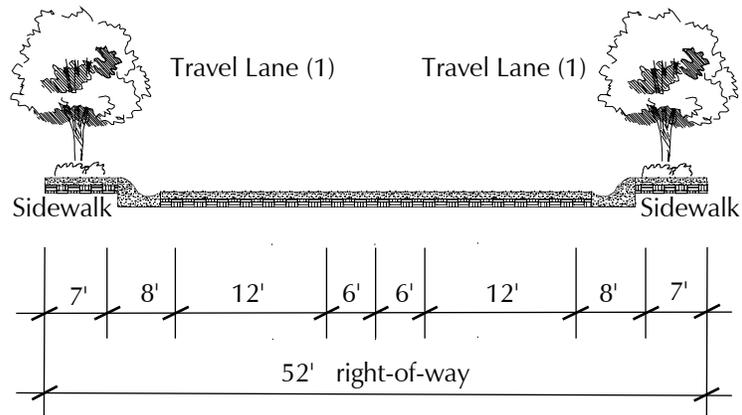


Figure CD-6
Typical Roadway Cross Sections

Secondary Arterial



Collector Roadway (with Median Turn Lane)



Collector Roadway

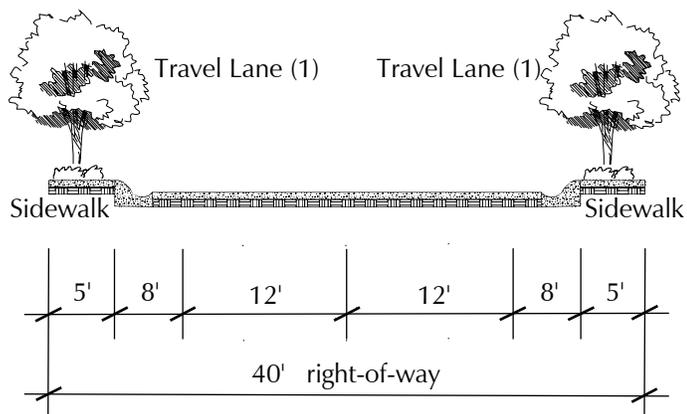


Figure CD-7
Typical Roadway Cross Sections

levels above the capacity of the facility. Descriptions of traffic flow for the different levels of service are provided in Table CD-4.

**Table CD-4
Level of Service Definition**

Signalized Intersections

Level of Service (LOS)	Vehicle Delay (seconds/vehicle)	Volume to Capacity Ratio (V/C)	Description
A	≤ 5.00	0.00-0.60	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	5.1-15.0	0.61-0.70	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers feel somewhat restricted within platoons of vehicles.
C	15.1-25.0	0.71-0.80	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	25.1-40.0	0.81-0.90	Approaching Unstable/Tolerable Delays: Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	40.1-60.0	0.91-1.00	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	≥ 60.0	>1.00	Forced Flow/Excessive Delays: Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Unsignalized Intersections

Level of Service	Vehicle Delay (seconds/vehicle)	Description
A	≤ 5	Little or no delay.
B	> 5 and ≤ 10	Short traffic delay.
C	> 10 and ≤ 20	Average traffic delays.
D	> 20 and ≤ 30	Long traffic delays.
E	> 30 and ≤ 45	Very long traffic delays.
F	> 45	Extreme delays potentially affecting other traffic movements in the intersection.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington DC 1994.

**Roadway
Congestion
Concerns**

Within Brea, Imperial Highway has been identified as part of the highway system identified in the Orange County CMP. Per the CMP and Orange County Growth Management Plan, the LOS at identified intersections must be maintained at LOS D or better for Brea to be eligible to receive earmarked State transportation funds. The CMP intersections in Brea are State College Boulevard at Imperial Highway, Valencia Avenue at Imperial Highway, and the SR-57 ramps at Imperial Highway.

The most critical time of the day for traffic operations in Brea is during the morning and evening peak hours, typically lasting from 6 to 8 A.M. in the morning and 4 to 6 P.M. in the evening. The freeway interchanges at Brea Boulevard, Lambert Road, and Imperial Highway are heavily congested during peak hours of the

day. Roads directly serving the local public schools also experience their highest levels of congestion during the morning and mid-afternoon school peak periods.

During evening commute hours, Valencia Avenue and Lambert Road/Carbon Canyon Road (SR-142) experience LOS F conditions. Carbon Canyon Road is one of the few roads that connect Brea and Orange County to San Bernardino County to the east. Thus, commuters use the road as a regional link between housing in San Bernardino and Riverside counties and employment in Orange County. East of the Olinda Ranch neighborhood, Carbon Canyon Road remains a two-lane highway with severe traffic during both A.M. and P.M. peak hours. Topography and sensitive habitat within Carbon Canyon severely limit opportunities to widen the roadway to relieve congestion.

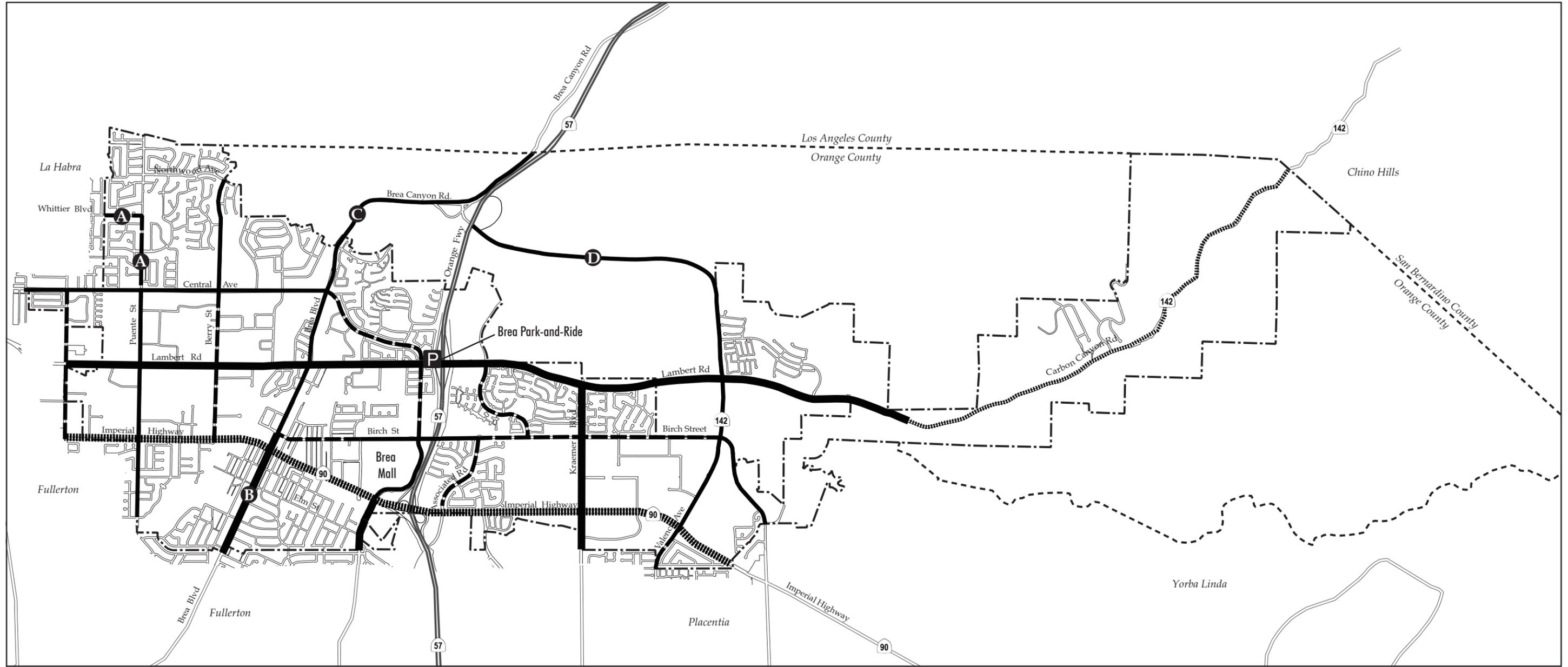
Imperial Highway, also a major east-west roadway, carries extremely high traffic volumes during peak hours and also can experience congestion during off-peak periods.

Master Plan of Roadways

To address areas where congestion historically has occurred and to accommodate long-term traffic needs, the City has developed a Master Plan of Roadways, illustrated in Figure CD-7.

The Plan meets Brea's long-term circulation needs, reflects City policies regarding environmental resource protection, and largely implements County Master Plan of Arterial Highways. The City Master Roadway Plan provides for changes to the County MPAH as described below. Figure CD-8 shows current MPAH classification for these segments, with the indication that the classifications will be changed following changes to the MPAH. The Master Plan of Roadways plans for the following changes:

- **Reclassify Puente Avenue and Whittier Boulevard as a Collector Arterial.** This modification accurately represents the function of this roadway.
- **Reclassify Brea Canyon Road (north of Lambert Road) as a Modified Secondary Arterial.** The Modified Secondary Arterial classification best reflects the function Brea Canyon Boulevard serves during most travel hours. Only during the evening commute does the roadway experience heavy use, typically as an alternative to the crowded SR-57 freeway. The City will preserve right-of-way adequate for a Primary Arterial, but the Secondary designation indicates the anticipated roadway function.



Legend

- City Boundary
- Sphere of Influence

Arterial Highways

- Major Arterial
- Smart Street
- Primary Arterial
- Secondary Arterial
- Modified Secondary Arterial
- Collector/Commuter Roadway
- Park and Ride

Notes:

- A** Whittier Boulevard and Puente Street north of Central Avenue will be redesignated as Collector/Commuter Roadway following parallel changes to the Orange County Transportation Authority (OCTA) Master Plan of Arterial Highways (MPAH).
- B** South Brea Boulevard south of Imperial Highway will be redesignated Primary Arterial following parallel changes to the OCTA MPAH.
- C** Brea Canyon Road will be redesignated Modified Secondary Arterial following changes to the OCTA MPAH.
- D** The Valencia Avenue extension between the entrance to the Olinda Alpha landfill and SR-57 will be deleted following parallel changes to the OCTA MPAH.

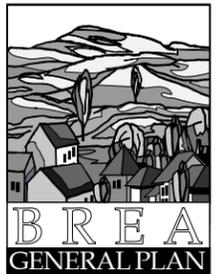
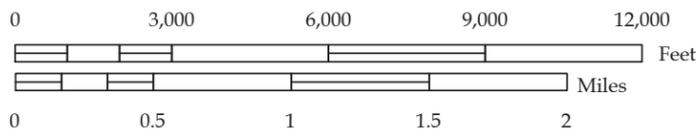
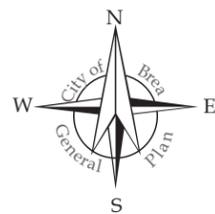


Figure CD-8
Master Plan of Roadways

- **Reclassify South Brea Boulevard (south of Imperial Highway) as Primary Arterial.** This modification preserves right-of-way consistent with a Major Arterial standard but indicates the City's intention to maintain no more than two travel lanes in each direction. The land use plan provides for South Brea Boulevard to be a mixed-use, pedestrian-friendly district. The wide right-of-way will provide space for on-street parking, pedestrian enhancements, ample landscaping, and street-oriented development.
- **Eliminate Tonner/Valencia Avenue (north of Lambert Road) as Proposed Primary Arterial.** Land use policy north of Lambert Road does not support the MPAH alignment, nor do planned densities require a roadway of this size.

Planned Circulation Improvements

Over time, the City will pursue transportation system improvements consistent with the Master Plan of Roadways. Focused improvements will provide for enhanced function of intersections, the control points in the circulation network. Examples of planned improvements include:

- State Route 57 northbound on-ramp at Lambert road widening project
- Rose Drive, Birch Street, and Valencia Avenue intersection improvements
- Kramer Avenue and Birch Street intersection improvements
- Imperial Highway Smart Street project
- Birch Street streetscape improvements
- Lambert Road streetscape improvements
- Various traffic safety projects

The City's Capital Improvement Program (CIP) will continue to be the tool used to identify needed circulation improvements and to commit required funding.

Regional Circulation System

Coordination with regional and State transportation planning efforts and those efforts adjacent jurisdictions is essential to addressing the regional traffic concerns that impact Brea directly, particularly within the Four Corners area.

Four Corners

The term “Four Corners” represents the intra-urban metropolitan area where the four county boundaries of Los Angeles, Orange, San Bernardino, and Riverside counties converge. Serving as the gateway between the Inland Empire and the more urbanized region of Los Angeles and Orange counties, during the latter decades of the twentieth century this area experienced a tremendous influx in commuter traffic and congestion. Expanding employment opportunities in Orange and Los Angeles counties and relatively affordable residential development in the Inland Empire have resulted in many, many commuters traveling from east to west in the morning and in the reverse direction after work. Demographic projections point toward continuation of this trend so that by 2020, many workers living in the Inland Empire are still expected to depend on jobs in other areas.

Four travel routes accommodate the east-west commute pattern: the SR-60 and SR-91 freeways, and two arterial streets, Grand Avenue through Diamond Bar and Carbon Canyon Road (SR-241) through Chino Hills and Brea. North-south traffic is restricted to SR-57 and Brea Canyon Road.² The Chino Hills and Santa Ana mountains limit opportunities for providing additional capacity.

According to the Four Corners June, 2000 study, the following issues and problems will intensify through the year 2020:

- Heavy directional commute problems resulting in significant delays during peak hours throughout the Four Corners area
- Major traffic streams through the very constrained convergence of the SR-60 and SR-57 freeways
- Slow eastbound traffic on SR-60 east of SR-57 due to a steep grade through the hills
- The presence of several colleges and universities along the SR-57 corridor, which increases congestion during the school year
- Use of Carbon Canyon Road to avoid freeway congestion

² Four Corners Study. Final Report. OCTA, SCAG, Four Corners Transportation Group. June 2000.

- Future travel patterns and congestion problems are expected to be less dominated by commuter trips as regional growth leads to other types of trip-making during peak periods

Improvement Strategies

The Four Corners participants, including Brea, recognize that both physical infrastructure improvements and “soft” traffic management strategies will be required to address regional traffic concerns. Recommendations contained in the June, 2000 Four Corners study that would affect Brea directly include:

- Adding two lanes on SR-57 between SR-60 and SR-22
- Developing a new road from Chino Hills to SR-57 pursuant to results of detailed feasibility and alignment study
- Developing express bus service from the City of Industry station to business and activity centers in Brea
- Studying the potential for ramps to and from R-57 carpool lanes in Brea

Brea will continue to investigate these and other strategies in cooperation with other Four Corners agencies.

Truck Routes

Brea experiences moderate amounts of truck traffic generated by commercial and light industrial uses and the Olinda-Alpha Landfill. Truck traffic may increase in future years in support of new businesses. The amount of truck traffic associated with the Olinda-Alpha Landfill is related to daily tonnage limits that are regulated by an agreement between Orange County and the City of Brea. Should the life of the landfill be extended, the City does not anticipate an increase in daily tonnage limits, given agreement restrictions. However, truck traffic will continue through the extended landfill operational period.

To minimize truck traffic impacts on noise-sensitive uses, the City has developed a truck route plan that directs truck traffic to Arterials.



A major source of truck traffic in Brea is the Olinda-Alpha Landfill located at the terminus of Valencia Avenue. The landfill can be seen in the photo on the right side, just above the houses.

Pedestrian Circulation System

Walkability, access, and connections are necessary components of a circulation system that easily and specifically accommodates pedestrians. Walkability includes wide sidewalks, safe street crossings, features that encourage cautious driving, and a pleasant and safe walking environment. Walkways, mid-block crossings, pathways, and pedestrian short-cuts allow people to get from one destination point to another with ease and quickly. Dedicated pedestrian paths can provide access between residential and retail areas, especially if streets are not feasible. Pedestrian connections should be provided primarily to and from intense commercial activity centers such as Downtown Brea and transit stops. Handicapped access strategies should be incorporated into all street and pathway plans.

Residential development tracts designed inward or isolated from adjoining neighborhoods create obstacles to pedestrian movement due to walls, limited access ways, and long walking distances. Residential tracts should have pathways to commercial centers, parks, schools, and transit stops. Activities of daily life must be within walking distance so that people will opt to walk rather than use the automobile for short trips.

The Community Resources Chapter contains an entire section on trails, including urban trails and sidewalks. Chapter Six, Public Safety, contains several goals and policies related to pedestrian safety.



This pedestrian access point, located at the southeast corner of Birch Street and Poplar Avenue, allows residents of the adjoining residential development to easily walk onto Birch Street without having to travel all the way around to the automobile street entrances. Birch Street leads pedestrians easily to Downtown Brea, the Civic and Cultural Center, and the Brea Mall.

Public Transportation System

Promoting the use of alternative transportation modes such as transit, bicycling, and walking produces a number of community benefits, including reduced traffic, reduced need for costly roadway improvement projects, improved air quality, and a healthier population. Transit in particular reduces vehicles on freeways and arterial roadways and offers mobility for those who cannot or do not wish to drive.

Public bus service is provided by OCTA. An established network of bus routes provides access to employment centers, shopping, and recreational areas within the City. Transit routes link Brea to other communities such as La Habra, Fullerton, Orange, Santa Ana, Costa Mesa, Tustin, Anaheim, Garden Grove, Irvine, and Newport Beach. OCTA periodically updates its countywide Bus Service Implementation Program to respond to necessary changes to service levels and route configurations.

Paratransit services are provided by ACCESS, OCTA's shared-ride service for people who are unable to use the regular, fixed-route bus service because of functional limitations caused by a disability. The City operates the Brea Shuttle Express, a curb-to-curb transportation shuttle. Local mobility could be enhanced by a Brea-based fixed-route service that in particular serves the schools and major retail areas.

OCTA also oversees commuter rail planning and operations. Brea supports efforts of OCTA to extend light rail or other commuter rail services to North Orange County, provided any such program maintains the quality of life in the City.

Accommodating Bicyclists

In Brea and throughout Orange County, where rain falls less than 30 days a year and temperatures are generally moderate, the climate is perfect for bicycling. People can easily cycle to work or school, provided safe routes are available. Allowing bicycles on buses or providing secure bicycle parking facilities can further encourage bicycling for longer trips. Cycling is also a major recreational activity, both on mountain tracks and along the roads. The numerous backbone and single-track trails for the advance and beginning mountain bikers in Chino Hills Park are purely for fun and exercise. For the road cyclist, Rose Drive leads cyclists to a paved pathway in Yorba Linda that guides them to the Santa Ana River Bike Trail, a great paved bike path that follows the Santa Ana River to the Pacific Ocean.

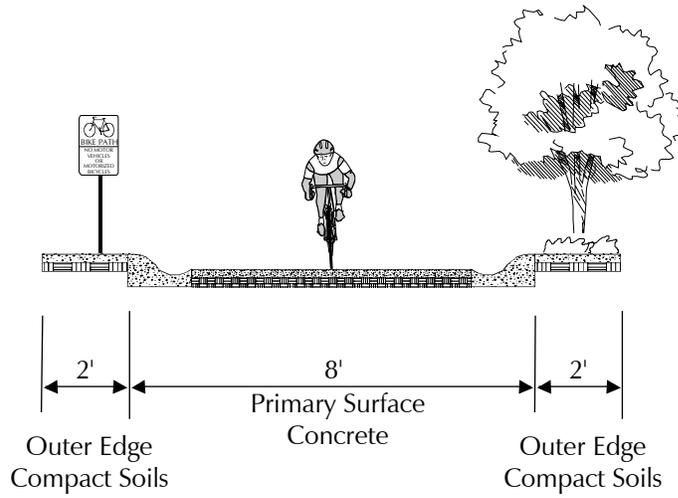
Bikeways, like roadways, come in several forms. Brea has adopted three bikeway standards that parallel those presented in OCTA's *Bikeways Strategic Plan*. Descriptions of these classifications are presented in Table CD-5 and illustrated in Figure CD-9.



Bikeways can provide access to recreational areas, such as this bike path entrance at Rose Drive. This particular bike path winds past Carbon Canyon Dam and straight into Carbon Canyon Regional Park. The Park has immediate access into Chino Hills State Park where various off-road bikeways for mountain biking can be found.

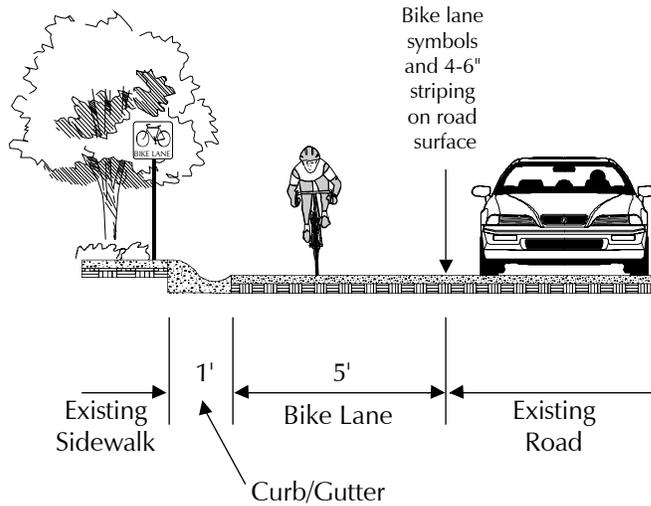
Class I (Bike Path)

Wider lanes recommended for high bike volumes or high levels of mixed use.

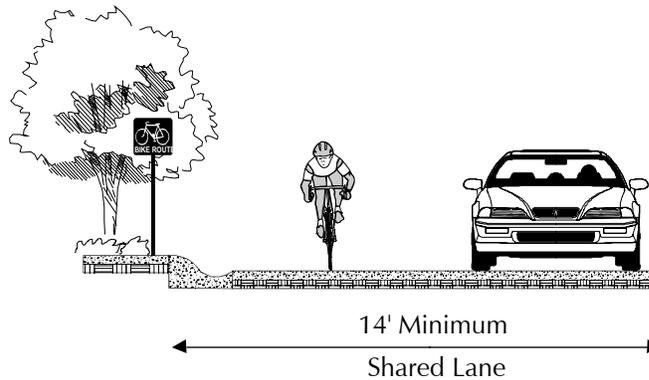


Class II (Bike Lane)

5' total width where curb occurs. Wider bike lane recommended for high bike volumes or if adjacent to on-street parking.



Class III (Bike Route)



Orange County Transit Authority Bikeways Strategic Plan, 2001

Figure CD-9
Typical Bikeway Cross Sections

**Table CD-5
Bicycle Network Classifications**

Type	Class	Description
Bike Paths	I	Bike paths are paved facilities designated for bicycle use that are physically separated from roadways by space or a physical barrier, and are referred to as Class I bike paths.
Bike Lanes	II	Bike lanes are lanes on the outside edge of roadways reserved for the exclusive use of bicycles, and designated with special signing and pavement markings. Bike lanes are referred to as Class II bike facilities.
Bike Routes	III	Bike routes are roadways recommended for bicycle use and often connect to bike lands and bike paths. Routes are designated with signs only and may not include additional pavement width. Bike routes are referred to as Class III facilities.
Off Road Paths	N/A	Off road bike paths are typically fire access roads or dirt trails that provide access into wilderness areas.

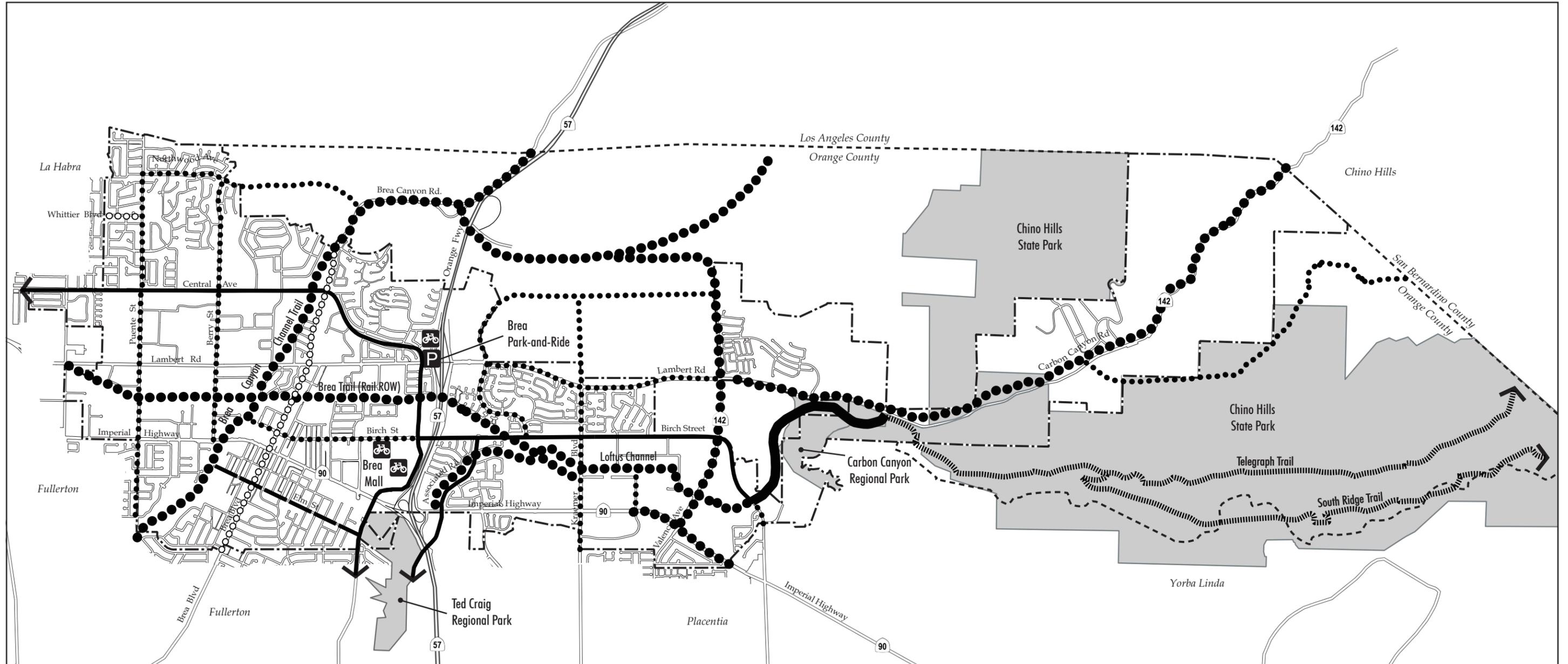
Source: Orange County Transit Authority Bikeways Strategic Plan, 2001



Bike lanes or Class II bike facilities provide visual identifications of the lane on the street and with signage, as shown here on State College Boulevard just south of Avocado Road.

Bikeway Plan

Figure CD-10 illustrates the Brea bikeway plan, designed to allow access to primary community centers, to connect Breans via bicycles to surrounding communities, and to provide people with an excellent source of recreation and fun. Key routes include Class II facilities along Central Avenue, State College Boulevard, Birch Street, Associated Road, Kraemer Boulevard, and Rose Drive. These routes link downtown Brea and several employment centers and residential neighborhoods.



Source: City of Brea, 1993 and OCTA, 2002.

Legend

- City Boundary
- - - Sphere of Influence

Bike Ways

- Bike Path (Class I)
- Bike Lane (Class II)
- Bike Route (Class III)
- Off Road (Unpaved)

Bike Ways (Proposed)

- Bike Path (Class I)
- Bike Lane (Class II)
- Bike Route (Class III)

- Park and Ride
- Bike Parking Facility

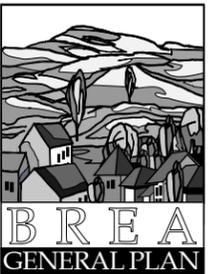
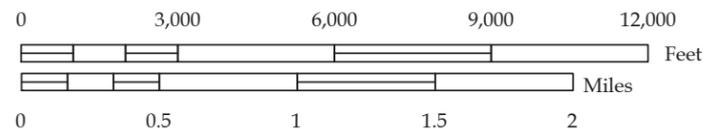
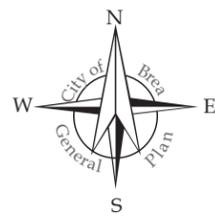


Figure CD-10
Bike Plan

Priority projects include developing bike lanes and paths along Lambert Road, Brea Canyon Channel, the Union Pacific rail trail, Berry and Puente Streets, and Carbon Canyon Road.

Linkages to Other Travel Modes

Providing a bicycle-to-transit link is a critical component to encouraging daily bicycle use. By linking bicycles with mass transit such as the train and bus, barriers between lengthy trips, personal security, and poor weather conditions are eliminated. In addition, bicycling to transit reduces taxpayer and parking costs, air pollution, energy consumption and traffic congestion.



Bike racks as shown here at the Brea Park-and-Ride (near the intersection of Lambert Road and State Route 57) provide great opportunities to link bicycling to other modes of travel, such as carpooling/van pooling and transit.

There are four main components of bicycle-transit integration:

- Allowing bicycles on transit
- Offering bicycle parking at transit locations
- Improving bikeways to transit
- Encouraging usage of bicycle and transit programs

Parking

Parking typically is considered a separate issue from vehicle circulation. However, the presence of on-street parking has a direct effect on roadway capacity. In addition, off-street parking deficiencies can cause vehicles to re-circulate on public streets, which also increases traffic volumes and congestion by reducing capacity for through traffic.

The City's zoning ordinance includes parking requirements to ensure that adequate number of spaces are provided on-site for most uses, as well as minimum stall dimensions that are consistent with current standards for other jurisdictions. These regulations apply to all new developments and may be applied to existing uses that are modified or expanded.

Goals and Policies

The following goals and policies ensure that Brea maintains a safe and efficient transportation network, and that a variety of mobility choices are available throughout the community.

Regional Transportation Facilities

Transportation in Brea is directly related to an overall transportation network for the four-county area. Roadway facilities in Brea accommodate regional traffic resulting from congestion on State Route 57 and limited access between San Bernardino and Riverside counties to Orange and Los Angeles counties. Planning for the needs of the community necessarily includes recognition of the related transportation needs and planning efforts of the surrounding communities, County, and region. With that recognition is the need for the City to actively monitor transportation planning in the surrounding area and strongly encourage regional transportation improvements.

Goal CD-10:	Maintain an effective regional transportation network.
--------------------	---------------------------------------------------------------

Policy CD-10.1 Work continually with Caltrans to improve access to and from State Route 57.

Policy CD-10.2 Support efforts to establish rail travel connections with a regional network.

- Policy CD-10.3 Cooperate with surrounding jurisdictions to ensure the efficient operation of the arterial network system.
- Policy CD-10.4 Work with Caltrans, the Orange County Transportation Authority, and surrounding jurisdictions to provide adequate capacity on regional routes for through traffic and to minimize cut-through traffic on the local street system.
- Policy CD-10.5 Work with Orange County Transportation Authority to ensure that the County Master Plan of Arterial Highways is consistent with the City’s Master Plan of Roadways.
- Policy CD-10.6 Recognize that Carbon Canyon Road will continue to serve high volumes of regional traffic despite its designation as a Modified Commuter. Thus, examine design solution alternatives that can improve the safety and efficiency of Carbon Canyon Road.
- Policy CD-10.7 Continue to work with the Four Corners Group to explore regional solutions to the four-county area.

Local Circulation System

A well-designed local roadway system is needed to provide safe and convenient access to activities in Brea. The local roadway serves the community’s primary need for mobility and includes a hierarchy of city streets to meet that need.

Goal CD-11 Provide a safe and efficient circulation system that meets the needs of the community.

- Policy CD-11.1 Maintain a circulation system that is based upon and is in balance with the Land Use Element of the General Plan.
- Policy CD-11.2 Establish Level of Service goals for designated City streets, and ensure that new development maintains these service levels.

- Policy CD-11.3 Plan neighborhood streets, pedestrian walks, and bicycle paths as a system of fully connected routes throughout the City.
- Policy CD-11.4 Protect residential streets from arterial street traffic.
- Policy CD-11.5 Use traffic calming measures in residential neighborhoods where warranted and appropriate to enhance safety for pedestrians.
- Policy CD-11.6 Utilize creative methods to reduce congestion and improve circulation.
- Policy CD-11.7 Maintain the existing width of streets and roads that serve Olinda Village.
- Policy CD-11.9 Consider establishing landscaped center medians on arterial streets such as Imperial Highway, Birch Street, and South Brea Boulevard.
- Policy CD-11.10 Work with the Brea Olinda Unified School District to establish safe routes to all schools and to facilitate better circulation surrounding schools in the A.M. and P.M. peak traffic periods.
- Policy CD-11.11 Examine alternative methods such as traffic calming, landscaping, provision of bike/transit lanes to slow traffic, improve street capacity, and increase safety.

**Public
Transportation
System**

To maximize use of the existing public transportation facilities and services, there is a need to increase the availability and use of public transit and non-vehicular methods of travel.

Goal CD-12 Promote and support an efficient public transportation system.

- Policy CD-12.1 Support transit providers such as the Orange County Transportation Authority in granting additional service routes within the City as needed.

- Policy CD-12.2 Promote and market the regional transportation network to encourage transit use.
- Policy CD-12.3 Study the transportation need of seniors. Plan for transit that suits the daily needs of Brea residents.
- Policy CD-12.4 Implement local transit or paratransit service to provide efficient connections from residential neighborhoods to and among urban centers and Downtown.
- Policy CD-12.5 Require new developments to incorporate transit-oriented design features, as appropriate.
- Policy CD-12.6 Balance accommodations for automobiles, transit, bicycles, and pedestrians in the design of new streets and streetscape improvements.

Pedestrian and Bicycle Facilities

Non-vehicular methods of travel, such as walking or bicycling, can also reduce demands on the roadway system where necessary improvements exist to promote those methods. It is important that facilities are in place to make walking and biking easy, comfortable, convenient, and safe. Together, public transit and non-vehicular modes can provide healthy and environmentally conscience modes of travel than to the automobile.

Goal CD-13 Provide for an extensive, integrated, and safe bicycle, hiking, and pedestrian network throughout the community, and make Brea a pedestrian-friendly community.

- Policy CD-13.1 Develop and maintain a comprehensive and integrated system of bikeways that promotes bicycling riding for commuting and recreation.
- Policy CD-13.2 Provide for safe and convenient pedestrian connections to and from Downtown, other commercial districts, neighborhoods, and major activity centers within the City.

Policy CD-13.3 Establish the Birch Street corridor between Downtown Brea and the Civic and Cultural Center/Brea Mall as a pedestrian and bicycle-friendly travel way.

Policy CD-13.4 Require new developments to provide for the use of alternative modes of transit via internal trails or travel ways – public or private – for pedestrians and vehicles other than cars. New developments shall include such features as well-designed sidewalks and parkways, bike lanes and paths, and dedicated bus turn-outs.

**Implementation
Guide**



See Section II of the Implementation Guide for action programs.

INFRASTRUCTURE

The City's water, sewer, and storm drain systems represent the hidden support network for development in Brea. These systems must be maintained to ensure that existing residents and business people can reliably turn on a tap, run the washing machine, or use water for industrial processes knowing that the infrastructure systems will not fail. As infrastructure ages, isolated failures represent a real potential. To preserve high service levels in Brea, water and sewer lines will need to be expanded and replaced to maximize efficiency and increase capacity. For new development, the infrastructure must be able to support new needs and demands without burdening current users.

Context

The City maintains the water distribution, sewage collection, and local storm drain systems in Brea. Water supplies are purchased from wholesale providers (refer to the discussion in the Community Resources Chapter), and the City is responsible for storage and distribution. Sewage collected in laterals and City trunk lines flows into regional lines maintained by the Orange County Sanitation District. With regard to flood control, City storm drains direct runoff into major channels and other facilities under the control of the Orange County Flood Control District.

Water Distribution System

Because the groundwater quality of the La Habra basin underlying Brea is poor, the City purchases water supplies from two agencies: the Metropolitan Water District of Southern California (MWD) and the California Domestic Water Company (CDWC). The one groundwater well owned by the City is used strictly for irrigation purposes.

Brea's distribution facilities include supply connections to MWD and CDWC, as well as emergency connections with neighboring agencies. Water enters the distribution systems from transmission mains through various pressure reducing stations and the Berry Street Pumping Station. The water is stored in reservoirs in the hills and other functionally strategic locations, and the City also has storage capacity in the Orange County Reservoir, which is jointly owned by Brea, La Habra, and Fullerton.



Inside one of Brea's water reservoirs during its construction.

In addition to water demands placed on the system for domestic and commercial use and irrigation, the water system must be capable of providing adequate pressures for fire-fighting purposes. Since fires can occur at any time, the water system must be ready at all times to provide the required flow.

In 2002, the City prepared a Water System Master Plan that analyzed the domestic water system to determine what improvements would be required over the long term to best serve established development, as well as requirements for new facilities based on the General Plan land use plan. Table CD-6 indicates the combined summary of total demand by land use within the planning area.

Over the long term, projected water demands are expected to increase from a 2002 baseline use of about 9.8 million gallons per day to 18.1 million gallons per day at build-out, an increase of 85 percent. To meet this anticipated demand, the City will be required to increase the capacity of the MWD OC-29 connection by five cubic feet per second. Also, low water pressure at higher elevations in Olinda Village and lack of sufficient pumping capacity at the Berry Street Booster Pumping Station will require upgrades to the pressure system.

Figure CD-11 identifies the required water system improvements within the planning area that will be pursued over the long term, with priority given to meeting the needs of established uses.

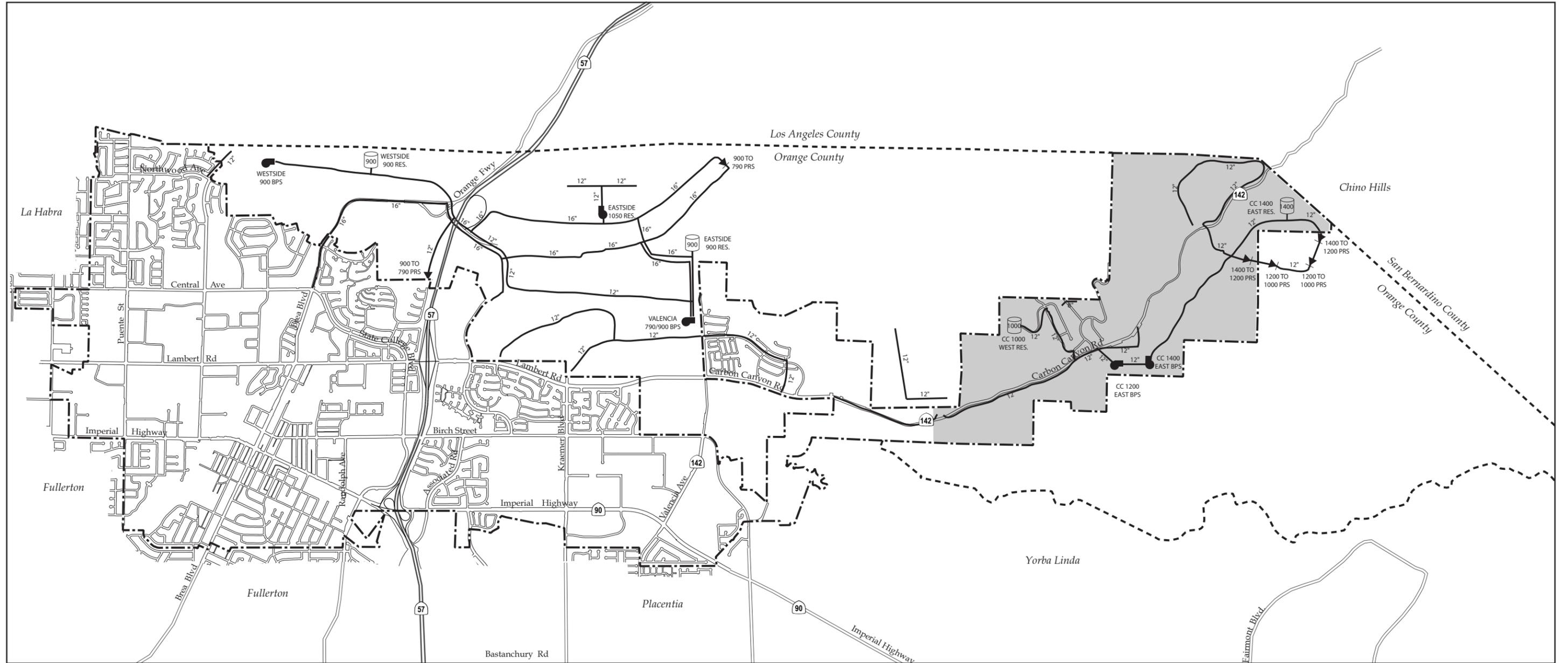
**Table CD-6
Total Water Demand by Land Use**

Zoning Categories	Area (acres)	Water Demand Factor (gpd/ac)	Average Day Water Demand (gpd)
Hillside Residential	246.5	2,000	493,000
Single Family - Hillside	66.9	2,000	133,870
Single Family (7,200 sq. ft./du)	1,676.6	1,500	2,514,900
Single Family (5,000 sq. ft./du)	10.9	1,500	2,514,900
Multiple Family (4,500 sq. ft./du)	301.2	2,000	602,384
Multiple Family (1,750 sq. ft./du)	169.4	2,800	474,313
Multiple Family (Incentive)	4.1	2,800	11,351
Administrative and Professional	61.8	2,000	123,612
Neighborhood Commercial	11.4	2,000	22,751
Major Shopping Center	249.5	3,000	748,384
General Commercial	318.2	1,400	445,480
Industrial Commercial	67.8	3,000	203,359
Light Industrial	616.8	3,000	1,850,357
General Industrial	496.2	2,000	992,400
Planned Community	311.2	2,300	715,661
Large Water Users Adjustment			504,347
AERA	332.8	n/a	520,980
Tonner	610.6	n/a	198,360
Tonner Hills	808.0	n/a	1,114,920
Tomlinson	39.5	n/a	146,977
Olinda Ranch	375.6	n/a	782,738
BHSP	153.7	n/a	521,792
PBR	190.6	n/a	625,368
Canyon Crest	377.0	n/a	486,780
SOI	5,924	n/a	4,702,122
Total			18,127,167

Abbreviations: gpd=gallons per day

Source: Brea Water Master Plan Update, 2002

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Source: City of Brea Water Master Plan Update (Draft), 2002.

Legend

- City Boundary
- Sphere of Influence
- 12" Improvements
- Pressure Reducing Station
- Booster Pumping Station
- Reservoir (HWL)
- Carbon Canyon Service Area

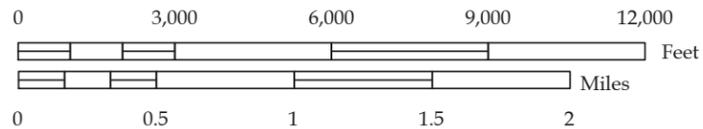
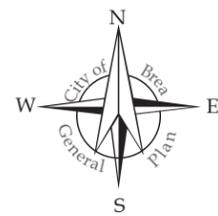


Figure CD-11
Water System Improvements
 2-69

Sewage Collection System

The local sewage collection system provides wastewater collection services to all areas within the City's corporate boundaries, portions of unincorporated Orange County, and a small portion of Placentia. The gravity system consists of over 100 miles of pipe, the majority of which consist of vitrified clay pipe ranging in size from 8 to 27 inches in diameter. The service area consists of ten major sewer drainage areas that flow into City trunk sewers, which in turn outlet to Orange County Sanitation District (OCSD) facilities. OCSD collects sewage from cities throughout Orange County and treats it at regional facilities.

In 2001, the City conducted an extensive analysis of the local sewer system to identify deficiencies in the existing system and to anticipate long-term needs as the City accommodates new residential and other uses. A sewer system model projected wastewater flows associated with build-out consistent with General Plan land use policy. Table CD-7 indicates long-term conditions within each of the ten drainage areas.

Ensuring adequate sewer service throughout the entire planning area will require replacement facilities and the extension of new infrastructure to serve new development. Figure CD-12 identifies the required sewer system improvements.

The Sewer Master Plan establishes the following priorities for recommended master plan capital improvements:

1. Facilities identified as deficient under existing peak-flow conditions shall be given high priority. For facilities known to require frequent maintenance, those facilities shall be considered of highest priority.
2. Facilities identified as deficient under ultimate conditions and dependent on future development shall be given a moderate priority.
3. Facilities affecting the greatest number of customers or which would cause the most damage in the event of failure are given higher priority rankings than those that do not. This means that downstream facilities with larger tributary flows receive higher priority than upstream facilities.

**Table CD-7
Ultimate Wastewater Flows by Drainage Region**

Number	Region Name	Average Dry Weather Flow (mgd)	Peak Dry Weather Flow (mgd)	Inflow/ Infiltration (mgd)	Peak Wet Weather Flow (mgd)
1	Imperial	1.154	2.027	0.507	2.534
2	Fullerton	1.851	3.130	0.783	3.913
3	Brea	0.233	0.465	0.116	0.581
4	Laurel	0.219	0.439	0.110	0.549
5	Rolling Hills	1.268	2.211	0.553	2.764
6	Associated	0.776	1.407	0.352	1.759
7	Cypress	0.207	0.418	0.105	0.523
8	Kraemer	0.995	1.768	0.442	2.210
9	Valencia	0.445	0.843	0.211	1.054
10	Carbon Canyon	0.934	1.668	0.417	2.085
City Total		8.081			

Abbreviations: mgd=million gallons per day

Source: Sewer System Master Plan, 2001

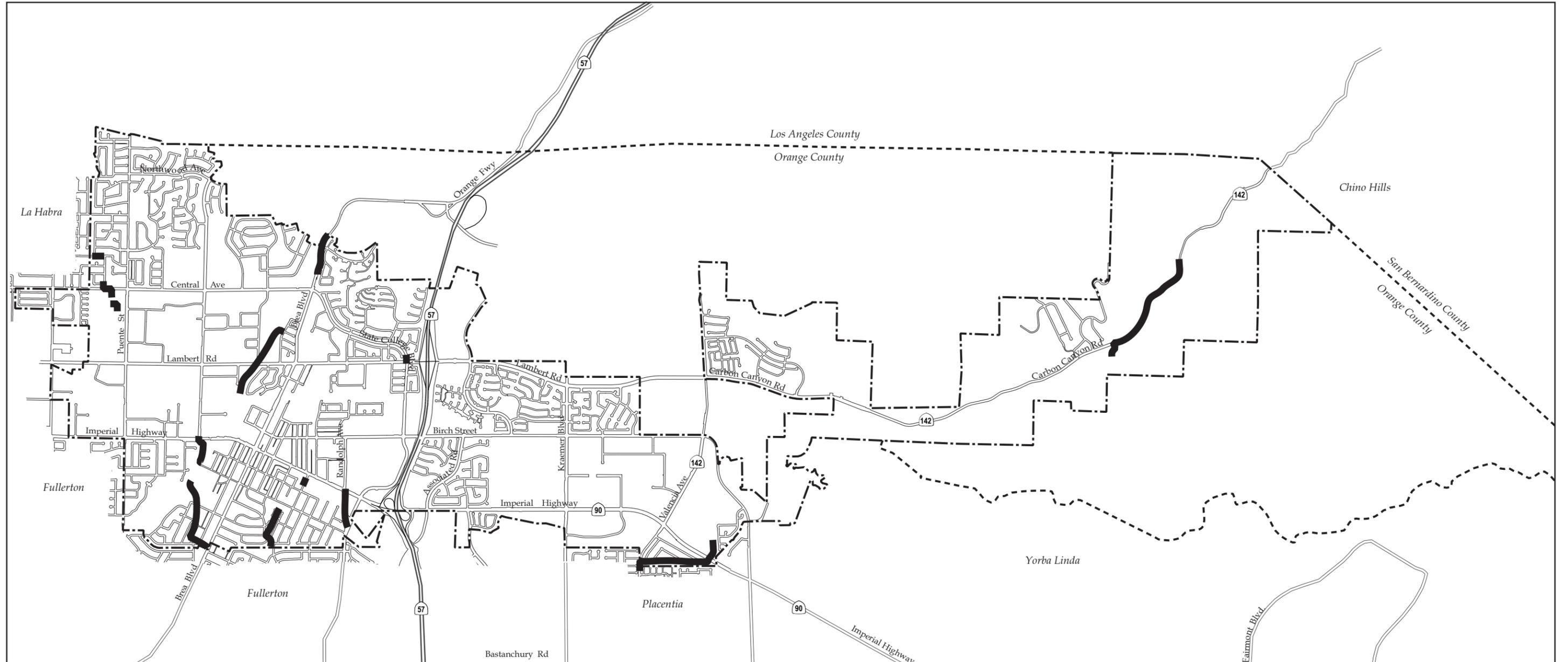
Storm Drains

Storm water is rainwater plus anything the rain carries along with it. In urban areas, rain that falls on roofs or collects on paved areas is carried away through a system of gutters, pipes, and culverts. Storm water runoff flows directly into the City's storm drain system via street gutters and other inlets, and this flow in turn discharges into County flood control channels which ultimately drain to the Pacific Ocean. The Orange County Flood Control District (OCFCD) maintains the regional storm drain system.

From a planning standpoint, the two important considerations to focus on regarding storm drains are: 1) ensuring adequate capacity to collect and carry storm water and thereby avoid flooding, and 2) working to reduce pollutant loads in storm water as part of regional efforts to improve water quality in surface waters.

Storm Drainage

In the hills above Brea, Brea Creek, Fullerton Creek (via the Loftus Diversion Channel), and Carbon Canyon Creek are the three primary drainage courses. All three are part of the greater watershed of the San Gabriel River, which outlets into the Pacific Ocean at Seal Beach. In Carbon Canyon, drainages and intermittent streams flow into the Carbon Canyon Dam drainage area. Stream flows below the dam are directed to the San Gabriel River via Fullerton Creek or diverted to the Santa Ana River.



Source: City of Brea Sewer Master Plan Update, May 2001.

- Legend**
- City Boundary
 - Sphere of Influence
 - Sewer System Improvements

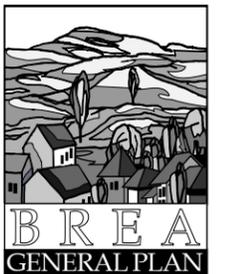
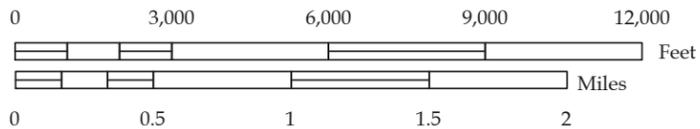
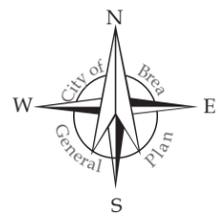


Figure CD-12
Sewer System Improvements



Brea Canyon Channel adjacent to Arovista Park is a reinforced concrete trapezoidal channel having a soft-bottom covered with vegetation. Brea Canyon Channel flows into Brea Dam located in the City of Fullerton.

Within the urbanized areas of Brea, surface flows are contained within concrete channels, including the Brea Canyon channel, Memory Gardens channel, Imperial channel, and Loftus Diversion channel. These channels, maintained by the OCFCD, provide a high degree of protection from excessive storm water flows. (Storm water flooding is addressed as a public safety issue in the Public Safety Chapter.)

Storm Pollutants

When it rains, trash, litter, silt, automotive chemicals (oils and grease, antifreeze, and fine dust from tire wear), animal wastes, and many other contaminants are washed into the storm drain system. Since storm drains are designed to carry only storm water, these drains typically are not equipped with filters or cleaning systems and consequently, deliver polluted urban runoff directly into local flood control channels and the ocean. Many of the pollutants found in this runoff are toxic to fish, marine mammals, and other aquatic life.

The Federal Water Pollution Control Act prohibits the discharge of any pollutant to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the passage of the Water Quality Act established NPDES permit requirements for discharges of storm water. The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Since 1990, operators of storm water systems such as Orange County's have been required to develop a storm water management program designed to prevent harmful pollutants from being washed away by storm water runoff and discharged into local water bodies. Brea

participates in the NPDES permit program via a partnership consisting of the County, all cities within Orange County, and the County Flood Control District.

Goals and Policies

Goal CD-14	Provide sufficient levels of water, sewer, and storm drain service throughout the community.
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Policy CD-14.1 Coordinate the demands of new development with the capacity of water and sewer systems.

Policy CD-14.2 Implement the City's water and sewer master plans to correct known deficiencies.

Policy CD-14.3 Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service.

Policy CD-14.4 Work with developers to ensure that adequate funding and support for required infrastructure is provided or ensured via bonds.

Goal CD-15	Minimize damage to the wastewater collection and treatment systems by preventing discharge of materials that are toxic or which would obstruct flows.
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Policy CD-15.1: Pursue treatment and disposal methods which, to the maximum extent feasible, provide for further beneficial use of wastewater and allow beneficial uses of land or water receiving the effluent.

Policy CD-15.2: Continue to investigate and carry out cost-effective methods for reducing storm water flows into the wastewater system.

Policy CD-15.3: Update and enforce Brea's standards for the quality of wastewater discharged to the system.

High Technology and Infrastructure

Just like traditional infrastructure such as roads, railroads, and telephone networks, digital and communications infrastructure provides a vital framework for the community. Communications infrastructure links the community with the nation and the world. Expanding access and capabilities of technology assists Brea in meeting its goals of livability, economic growth, and provision of high-quality services to residents. Brea can work to harness new technology and telecommunications systems by including all residents and business in the use of high-speed, high-capacity, digital communication systems.

Goal CD-16: Assist public and private organizations to deliver digital and communication services to neighborhoods.

Policy CD-16.1: Help institutions provide distance learning opportunities, services, and commercial products directly to residents.

Policy CD-16.2: Explore the feasibility of allowing residents and businesses to comment on City issues, pay utility bills, apply for building permits, or register for recreational activities and classes on line.

Implementation
Guide 

See Section III of the Implementation Guide for action programs.

URBAN DESIGN

Vision

Imagine Brea with walkable, tree-lined streets and linked trails and bicycle paths. Imagine high-quality residential neighborhoods with shops, services, schools, and parks within close walking distance. Image a lively downtown and Brea Boulevard with outdoor dining, shops, and homes mixed together and places to linger and meet one another. Imagine traveling along Lambert Road, Imperial Highway, or other main arterials and instantly recognizing that you are in Brea.



Awnings, sidewalk, street trees, and public art invite people outside to walk, socialize, and visit the interesting places Brea offers.

The image of Brea is composed of the perception and experience of those living, working, playing, or traveling throughout the community. Urban design addresses the conservation and enhancement of the visual quality of Brea. Urban design applies to Brea's visual and physical setting and transcends into other planning areas: transportation, land use, housing, economic development, and the natural environment. Addressing urban design in Brea is especially significant given the City's unique mixed-use districts, historical and cultural resources, and rugged hillside and open space areas. This Urban Design section of the Community Development Chapter provides guidance regarding the visual appearance, character, and quality of life within the community. Principles and policies are designed to improve the community-wide appearance and character of Brea, as well as to address urban design in specific areas such as mixed-use districts and hillside areas.

Context

The history of Brea lies in its hillsides: in the oil industry, production camps, and early settlements that predate the City's founding. Today, the rugged hills provide a scenic backdrop to the community and insulate the community geographically and psychologically from Los Angeles and San Bernardino counties. Breans remain concerned with preserving the natural environment and open space areas. Throughout the General Plan preparation process, residents identified these areas as a valuable visual resource that represent a defining component of community identity.



Incorporating landscaping and decorative features assists in making outdoor plazas inviting.

Brea is also in a unique position of benefiting from a vibrant, pedestrian-oriented downtown that incorporates and blends residential, commercial, retail, and entertainment uses. Downtown Brea represents a source of community pride and an important destination. Mixed-use land use designations will provide pedestrian-oriented focused areas that offer opportunities for people to live, work, shop, and play. The success of mixed use and pedestrian-oriented areas within the Downtown will be expanded into other suitable areas – along Birch Street across from the Civic and Cultural Center and along South Brea Boulevard – that have ready access to transit and community focal points.

Maintaining and improving the City's residential areas is also a key component of urban design. While the majority of the community's housing stock is in good to excellent condition, many residential neighborhoods would benefit from enhanced pedestrian and transit connections and integration of local shopping and services to meet the needs of residents.

Community members have identified several issues relating to the qualities that define Brea:

- Breans recognize the value of the community's "old town" feel and community history. This can be enhanced through the use of markers, landmarks, buildings, and signs to designate historic districts.
- Many areas of Brea are not very walkable and are visually non-descriptive, with excessive use of driveways and bland, non-cohesive storefronts. The use of design standards, interesting pavement designs, trees, benches, mixed-use, and restaurant seating on sidewalks would improve the look and walkability of these areas.
- Brea would benefit from more pocket parks, attractive public spaces, attractive development, on-street parking, historic landmarks, and signs to invoke a sense of identity and connection to the past.
- All sides of development (side, back, and front) should look attractive and be accessible.
- Brea needs a stronger sense of community identity. Capitalize on Brea's unique history and provide more visual definition at City entrances.
- The look and success of Downtown is a great asset to the community. Active pedestrian and social activities are largely achieved through design and mixed-use development. We should extend the look and success of Downtown Brea to other areas such as South Brea Boulevard.
- Green space adds tremendous value and enjoyment to residents. Since a limited amount of open space remains in Brea, this can be achieved through more landscaping and trees.

- Pedestrian-friendly streets, outdoor dining, street furniture, and sidewalks make a community more attractive and also make people want to get out of their cars and walk to different places.
- A limited number of historic structures remain in Brea; therefore, we should identify structures that are important to be saved. Many valuable historic homes and buildings can be refurbished or improved.
- Breans enjoy the community's varied and extensive outdoor art collection. We should employ more creative methods to incorporate art work to blend with new and existing buildings.
- Brea's hillsides are an important community asset. They should be developed with the least amount of impact possible, while still maintaining the ridgelines and providing pathways and viewing trails for the community.

The urban design plan presents broad citywide goals, as well as specific design policies tailored for distinct neighborhoods in the community:

- Downtown Brea
- Historic Brea
- Northwest Brea Neighborhoods
- East Brea Neighborhoods
- West Brea Industry and Commerce Center
- Unocal Research Center and Environs
- Hillside Districts
- Carbon Canyon/Olinda Village
- Olinda Alpha Landfill and Environs

The citywide urban design objectives and design guidelines for districts and neighborhoods have been crafted around the following five overarching goals:

Goal CD-17 Promote and maintain a distinct community identity and sense of place that include the presence of identifiable districts and neighborhoods.

Goal CD-18 Emphasize the use of public spaces and pedestrian and transit use throughout the community.

Goal CD-19 Encourage active and inviting street environments that include a variety of uses within Commercial and Mixed-Use areas.

Goal CD-20 Encourage site planning within Commercial and Mixed-Use districts that functionally and visually integrates on-site facilities and uses, including buildings, services, access, and parking.

Goal CD-21 Integrate residential development with its built and natural surroundings, and in particular, encourage a strong relationship between dwellings and the street.

Goal CD-22 Encourage the use of native plant palettes in the creation of landscaping plans used to establish a sense of place in neighborhood identification efforts.

**Implementation
Guide** 

See Section III of the Implementation Guide for action programs.

Urban Design Plan

At a citywide level, programs and improvements will be pursued that enhance the visual character of Brea and create a distinct identity.



Homes that create a direct relationship to the street, without the looming presence of garages, reinforce the feelings of neighborhood and community.

Citywide Concept: Places

Overall Concept

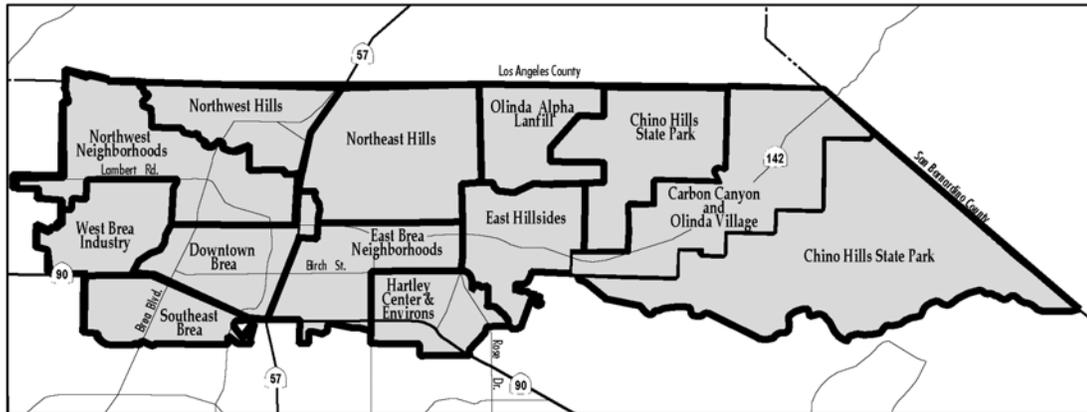
The urban design plan recognizes the multitude of places that distinguish Brea. These places vary in scale from districts to landmarks, but each component further differentiates the community and contributes to the understanding, use, and enjoyment of the City.

Concept Components: Brea Places

Districts describe rather broad areas of the community, each featuring a relatively consistent character and sometimes a highly unique identity (Figure CD-13). Districts should complement one another, and while some are distinguished by a diversity of uses (Downtown Brea, Historic Brea), others are identified by a single dominant land use. For instance, Northwest Brea Neighborhoods consist of mostly residential areas, with limited commercial use. Private development and public improvements should enhance the identity, character, and function of each district.

Neighborhoods are relatively defined areas with a primarily residential function, often focused around a park or school. Neighborhoods should be well connected with their surroundings, and integration of a limited amount of local shopping and services conveniently serving day-to-day needs is often justified. Of particular concern to Brea's residents, the quality of existing neighborhoods should be preserved, and new development should be sensitive to residential surroundings.

Figure CD-13. Urban Design District Map



Activity Nodes serve as important destinations, the major centers of public life within the community. These nodes require a “critical mass” and should promote compact development patterns, with particular emphasis given to main street commercial, housing over retail, and/or urban village project types. Streets should be treated as highly public places where pedestrians are given priority and there is an abundance of streetscape amenity.

Focal Intersections become visually distinct places through special paving, landscape treatment, and/or public art; they serve to orient residents and visitors alike. Some intersections may also function as the focus of activity for surrounding districts and nodes. Increased development intensities surrounding the intersection and buildings with strong corner massing will highlight and support this role.

Schools and Parks are traditionally associated with local neighborhoods, and this pattern is appropriate to Brea. A desirable balance between residential land use and open space resources is achieved, and many social and recreational needs are conveniently met. Each neighborhood should have convenient access to a local park, preferably within or directly adjacent its boundaries; however, some outlying neighborhoods are not well served.

Urban Spaces include publicly accessible plazas, courtyards, and similar outdoor spaces that form a vital component of a community’s public life. Therefore, these spaces are especially appropriate within identified activity nodes. As well-defined outdoor rooms, they may accommodate public gatherings and celebrations, or serve as retreats from urban activity.

Landmarks are highly recognizable buildings, structures, or landscape features. As such, they become powerful orienting devices that help define the City, a district, and/or a neighborhood. For instance, residents readily identify “The Plunge” with Historic Brea. Historically significant buildings and structures frequently achieve status as community landmarks and should be preserved and protected from incompatible development.

Natural Features generally refer to the hillside areas that provide a special backdrop to the community. The hillside areas are an indispensable component of the City’s visual character, and include environmentally significant features such as ridgelines and drainage ways that should be protected from intrusion.

Figure CD-14 indicates locations of urban design improvements planned throughout Brea.



Gateways featuring special signage are an opportunity to reinforce Brea’s unique character and identity.

Citywide Concept: Connections

Overall Concept

The urban design plan identifies opportunities to strengthen the principal connections that unite Brea’s place. These linkages build a system of open spaces comprised of landscape corridors, walkable streets, and trails connecting undeveloped hillside, public parks and schools, and urban open spaces. Brea has identified a particular need to upgrade the visual quality of many of the community’s streets. The City also recognizes the opportunity to build strong connections to new development by extending the existing road network.

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Source: □ RTKL Associated Inc., April 2002 and Cotton/Bridges/Associates, 2002. □

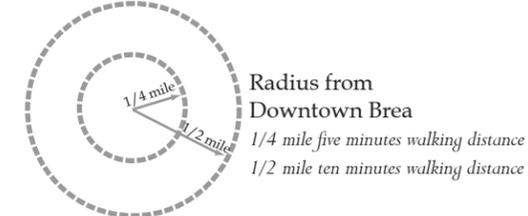
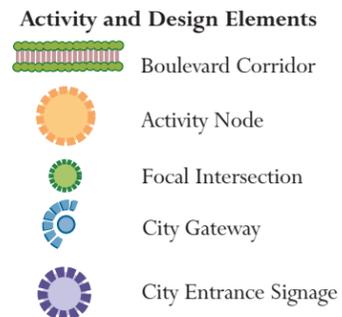
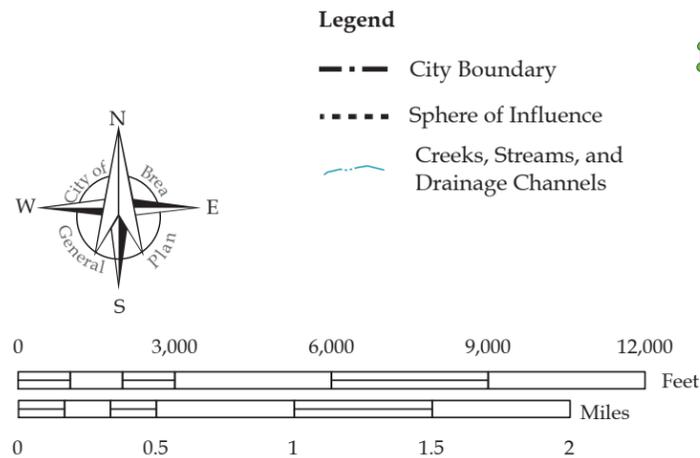


Figure CD-14
Urban Design Plan Map



Links between sidewalks and trails will increase access and enjoyment of the hillside and other valued community open spaces.

Concept Components: Brea Connections

Gateways announce arrival, as expressed through special design. City gateways are recommended where major streets cross municipal boundaries and at freeway ramps. District gateways should be considered for especially recognizable districts, most notably Downtown Brea and Historic Brea. Environmental graphics (i.e. signage) that express local history and identity are an especially important element of gateway design.

Landscape Corridors are a highly visible component of the cityscape. These significant regional thoroughfares benefit from extensive landscape improvements. In particular, generous medians and parkways enhance the visual quality of these otherwise auto-dominated corridors and function as an extension of the community open space network (Figure CD-13).

Mixed-Use Boulevards directly link and/or support Brea's principal activity nodes, requiring the transformation of auto-dominated arterials into vibrant mixed-use places. While these streets will continue to support auto and transit movement, they represent boulevards where pedestrian activity is most desired. Brea Boulevard, Birch Street, and key roadways within newly developing areas will receive this treatment. Public initiatives and private sector development will need to respond accordingly. Buildings should exhibit an exceptionally strong street orientation, and priority should be given to providing considerable streetscape amenities.

Major Linkages establish a community-wide network of connections between parks and schools to create an open space system. Typically, these streets are arterials and collectors that should be more accommodating of the pedestrian. Recommended streetscape improvements emphasize street trees

to unify the street's appearance, and amenities such as enhanced transit stops, benches, and pedestrian-scaled light fixtures. As far as feasible, adjacent development should orient to the street and incorporate pedestrian-friendly design features.



Multi-use trails provide places for pedestrians, joggers, and cyclists.

Neighborhood Linkages promote local walking connections to shops and services, including neighborhood parks and schools. These streets may also offer vital connections between adjacent neighborhoods; for instance, the existing street network should be extended to discourage isolated developments. Continuous sidewalks are a necessity in both nonresidential and residential areas. In addition, opportunities for traffic calming should be explored within residential neighborhoods.

Pedestrian Passages provide on-site connections between sidewalks, outdoor spaces, building entrances, and parking facilities. They are an especially important component of urban villages and activity nodes, where a well-connected and engaging pedestrian environment is most critical.

Trails complement regional and community open space systems. Ridgelines, drainage ways, abandoned rail lines, urban drainage channels, and freeway rights-of-way provide the opportunity for a continuous network linking hillsides with flatlands. In the Community Resources Chapter, the Trails Plan identifies a network of urban and natural area trails linking all community places.

District Character

Downtown Brea Policies for Creating a Sense of Place

- Provide diverse housing, employment and cultural opportunities throughout the Downtown, with an emphasis on compact, mixed-use and pedestrian-oriented development patterns that are appropriate to the core of the City.



Landscaping enhances private businesses where they interface with the public realm.

- Accommodate a range of housing densities and residential building types, including non-traditional forms that enliven the Downtown setting, such as small lot single-family residential, housing over retail, lofts, and live-work accommodations.
- Promote the Brea/Birch intersection as the vibrant heart of Downtown and the principal center of public life for the community; this node should function as a highly identifiable shopping and entertainment destination for Brea and neighboring communities.
- Enhance the public character of the Civic and Cultural Center and its surroundings; this area of Downtown should be highly accessible and much more accommodating of people, with an emphasis on transit- and pedestrian-oriented development.

Policies for Creating Connections

- Build especially prominent visual and physical connections between Downtown and the remainder of the community; key strategies for establishing strong links are district gateways,

landscape corridors, convenient transit, comfortable and attractive transit stops, and walkable streets.

- Create an extensive network of safe and comfortable pedestrian linkages throughout the Downtown, including visually attractive, high-amenity streetscapes, pedestrian paseos and paths, and urban outdoor rooms.
- Strengthen the connection along Birch Street between the heart of Downtown and the Civic and Cultural Center; pedestrian-oriented, mixed-use development, and a high level of streetscape amenity are encouraged.

Historic Brea



Bungalow dwellings and other historic structures contribute to Brea's historic identity.

Policies for Creating a Sense of Place

- Protect the character and enhance the quality of Historic Brea's single-family residential areas; in particular, infill development should be compatible with the scale and appearance of neighboring dwellings, with higher intensity development along South Brea Boulevard serving as a buffer to the established single-family neighborhood behind.
- Support preservation and rehabilitation of the area's single-family residential dwellings, especially those homes that are recognized as historic and/or positively contribute to the character of the neighborhood.
- Facilitate the transition of South Brea Boulevard toward a higher intensity mixture of compatible uses centered on the blocks surrounding City Hall Park; these blocks should provide a focus for the district, as well as local shopping and services.
- Ensure that new development within the district respects and responds to the historic architecture.
- Provide logical transitions between higher intensity development along South Brea Boulevard and nearby single-family neighborhoods; scale, massing, and the location of services should respond sensitively to adjacent residential uses.

Policies for Creating Connections

- Strengthen connections to local parks and services, and enhance the appearance and safety of residential streets. Canopy street trees located in parkways separating sidewalks

from roadways should become an especially important feature of the District's neighborhoods.

- Use traffic calming measures to reduce travel speeds and divert through traffic from local residential streets; these measures are intended to improve neighborhood livability.
- Transform South Brea Boulevard into an active, pedestrian-friendly street that balances auto, transit, and pedestrian mobility. The street should accommodate compact and mixed-use development oriented to the sidewalk.

Northwest Brea Neighborhoods

Policies for Creating a Sense of Place

- Preserve the character and enhance the quality of the district's residential neighborhoods; new development should be compatible with the surrounding character.
- Promote high standards of maintenance and otherwise improve the appearance of multi-family residential projects. New multi-family housing should transition in scale to adjacent single-family dwellings and minimize the visibility of on-site parking.
- Integrate local shopping and services to meet the basic needs of residents. The design and layout of local shopping centers should respond sensitively to adjacent residential uses.

Policies for Creating Connections

- Upgrade the appearance of visually inferior arterial and collector streets. Street trees and other landscape improvements should establish strong visual and physical linkages with adjoining districts.
- Improve access to local parks, schools, shopping and services, focusing on enhanced pedestrian and transit connections. Streetscape improvements should encourage walking and cycling.
- Use traffic calming measures to reduce travel speeds and divert through traffic from local residential streets. These measures are intended to improve neighborhood livability.

East Brea
Neighborhoods

Policies for Creating a Sense of Place

- Preserve the character and enhance the quality of the district’s residential neighborhoods. New development should be compatible with the surrounding character.
- Explore opportunities for new neighborhood parks and recreational facilities, especially within or near those neighborhoods that are underserved and/or in conjunction with new development projects.



Residential developments within the East Brea neighborhoods have enhanced the community by incorporating open space amenities.

Policies for Creating Connections

- Establish linkages between adjacent developments, emphasizing an interconnected network of attractive streets, sidewalks and paths. New developments should extend the existing street grid.
- Improve access to local parks, schools, shopping and services, focusing on enhanced pedestrian and transit mobility. Streetscape improvements should encourage walking and cycling.
- Use traffic calming measures to reduce travel speeds and divert through traffic from local residential streets.

West Brea Industry
and Commerce
Center

Policies for Creating a Sense of Place

- Pursue redevelopment of functionally and visually inferior industrial properties. Contemporary office and industrial campus environments are encouraged.
- Organize buildings around on-site open space areas such as courtyards, quadrangles, and greens. Abundant landscaping should enhance sites and contribute to a campus setting.
- Accommodate commercial shopping and services that meet the day-to-day needs of area employees.

Policies for Creating Connections

- Build connections to adjacent districts and uses. Street trees and other landscape improvements should enhance the appearance of arterials and corridors.



Construction of contemporary office and industrial campus environments is transforming and updating the West Brea Industry and Commerce Center.

- Improve pedestrian access throughout the district. Continuous sidewalks and on-site paths that connect adjacent uses, buildings, outdoor spaces, and parking are strongly encouraged.
- Pursue trail opportunities within the district. Consistent with the Trails Plan (Community Resources Chapter), rail lines and urban drainage channels can be developed as open space and recreational resources for local workers and community residents alike.

Unocal Research
Center and
Environ

Policies for Creating a Sense of Place

- Consistent with land use policy, transition toward a mixed-use urban village that encompasses a range of housing types. A highly integrated mix of complementary land uses should provide jobs, housing, and services.
- Require pedestrian-oriented development that emphasizes horizontal and vertical mixing of land uses to contribute to the desired village atmosphere.
- Incorporate well-defined urban spaces that support social interaction and are comfortable to occupy. Pocket parks, plazas, and courtyards are compatible with an urban village lifestyle.
- Make provisions for educational, institutional, and active recreational uses that serve the entire community.

Policies for Creating Connections

- Provide convenient pedestrian and transit access throughout the district, including an interconnected network of high-amenity streetscapes, attractive and comfortable transit stops, and multiple paths that connect activities and uses.
- Improve the appearance and pedestrian orientation of arterials and corridors that pass through the district. Street trees and other landscape improvements will be used to significantly upgrade district streets.
- Promote an active street life, in keeping with the desired urban village concept. Building design and orientation should establish a strong relationship with the street.

The Hillsides **Policies for Creating a Sense of Place**

- Preserve the scenic beauty of Brea’s hillsides, and minimize the visual and environmental impact of development upon sensitive hillside areas.
- Prohibit the construction of dwellings or other structures on the most sensitive hillside areas. In particular, prominent ridgelines, drainage ways, and significant stands of mature vegetation should be left undisturbed.
- Require sensitive grading techniques and other design measures that minimize the visual impact of development and make dwellings unobtrusive.



The hillside areas remain mostly undeveloped, providing an attractive backdrop to the community.

Policies for Creating Connections

- Encourage preservation of the most sensitive hillside areas through conservation easements, land acquisitions, and/or other initiatives that contribute to a regional and community-wide open space network.
- Establish hillside trails along undeveloped corridors to link with regional and community systems.
- Provide sensitive transitions between large-lot hillside development and adjacent neighborhoods developed at considerably higher densities. Hillside development should, to the maximum extent feasible and practical, include roadway, open space, and trail links to adjoining neighborhoods.

Carbon Canyon/Olinda Village

Policies for Creating a Sense of Place

- Preserve the scenic beauty of Brea’s hillsides, and minimize the visual and environmental impact of development upon sensitive hillside areas.
- Maintain Olinda Village’s character as a special residential enclave, with provision for a limited number of shops and services to meet the day-to-day needs of area residents.



- Prohibit the construction of dwellings or other structures on the most sensitive hillside areas; in particular, prominent ridgelines, drainage ways and significant stands of mature vegetation should be left undisturbed.
- Require sensitive grading techniques and other design measures that minimize the visual impact of development and make dwellings unobtrusive.

Carbon Canyon retains its rural identity, embracing the small, tight-knit settlement of Olinda Village.

Policies for Creating Connections

- Encourage preservation of the most sensitive hillside areas through conservation easements, land acquisitions, and/or other initiatives that contribute to a regional and community-wide open space network.
- Establish hillside trails along undeveloped corridors that link with regional and community systems.
- Provide a sensitive transition between Olinda Village and new hillside residential development. For example, an undeveloped greenbelt corridor bordering Olinda Village will protect its distinct identity.

Olinda Alpha Landfill and Environs

Policies for Creating a Sense of Place

- Reclaim this area as open space subsequent to closure of the landfill. All development should be restricted, except parks, trails, and related facilities such as rest areas that have minimal impact on the landscape.
- Regenerate the landscape and reestablish wildlife habitat. Native species adapted to local climatic and environmental conditions should be planted.

Policies for Creating Connections

- Provide trails that connect to community and regional systems; trails that are coordinated with recreational facilities in the adjacent Chino Hills State Park are especially encouraged.
- Design trails in this area to accommodate a variety of users. Because of prior disturbance to the site, these trails may be less restrictive and allow hiking, bicycling and equestrian activities.

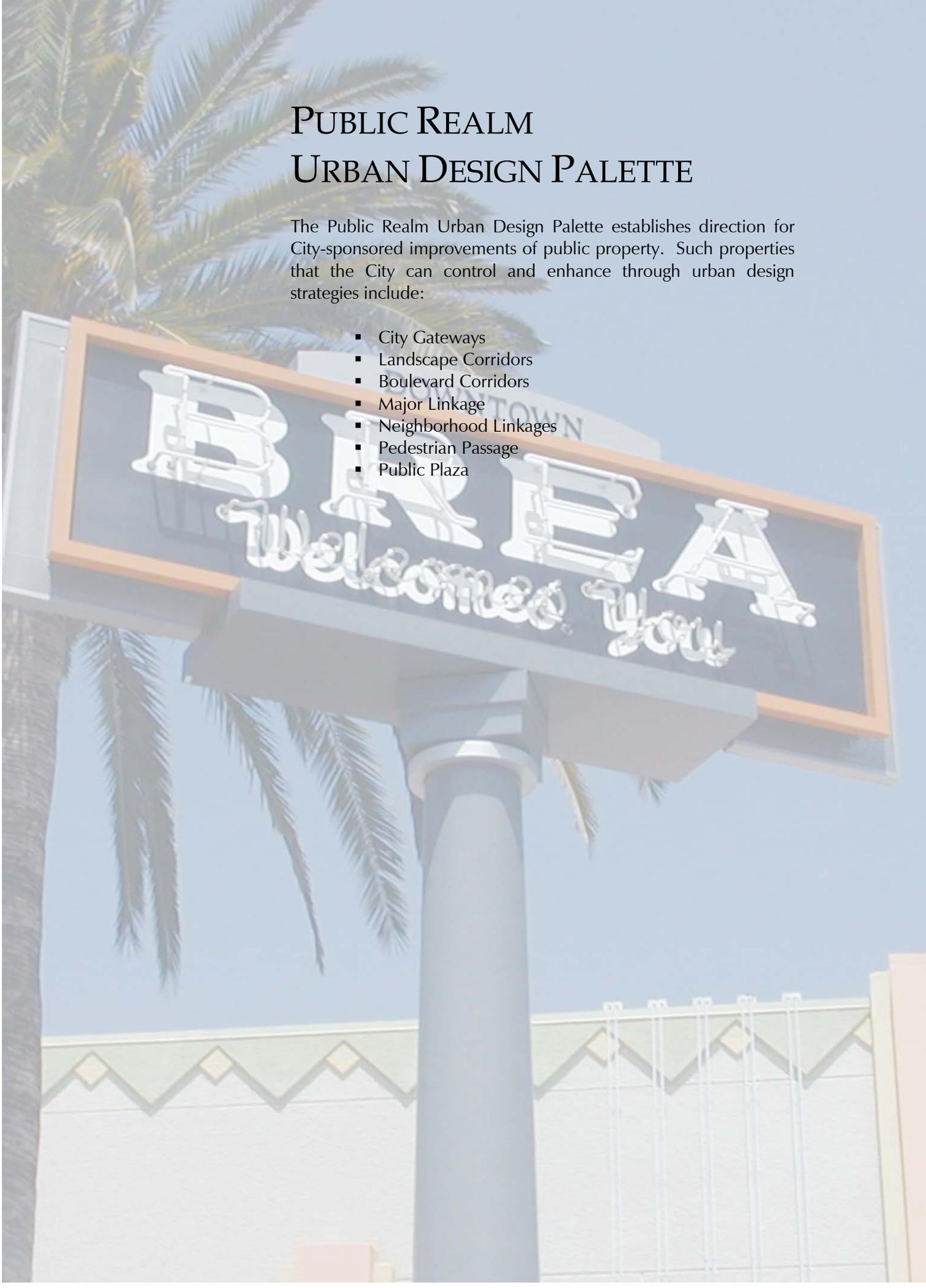


Reclamation of the Olinda Landfill and environs presents a tremendous opportunity for the City to enhance the visual and recreational appeal of its hillsides.

PUBLIC REALM URBAN DESIGN PALETTE

The Public Realm Urban Design Palette establishes direction for City-sponsored improvements of public property. Such properties that the City can control and enhance through urban design strategies include:

- City Gateways
- Landscape Corridors
- Boulevard Corridors
- Major Linkage
- Neighborhood Linkages
- Pedestrian Passage
- Public Plaza



City Gateway

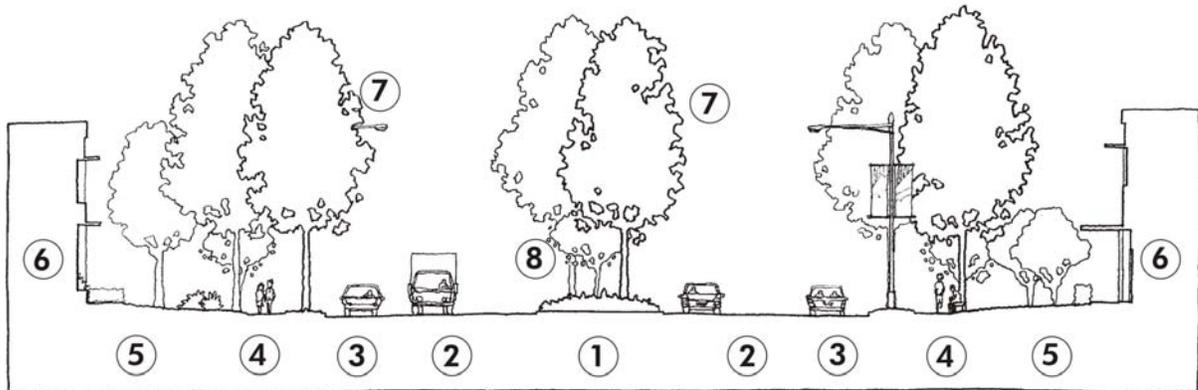
- Identify the City at prominent entrances to the community. Distinctive public art pieces, signage and/or graphics that express the history and character of the community are recommended at City gateways.



- 1. Distinctive signage
(vertical design element)**
- 2. Special landscape treatment
(street median)**

- Use a combination of special paving, lighting, and/or landscape treatment to augment the appearance and visual impact of gateways. For example, a change in streetscape design and appearance will communicate passage into Brea.
- Mark community thresholds with vertical design elements. Where appropriate, private development should support the notion of community gateway with strong corner massing, tower elements, or other architectural features that create a distinct profile.

Landscape Corridor

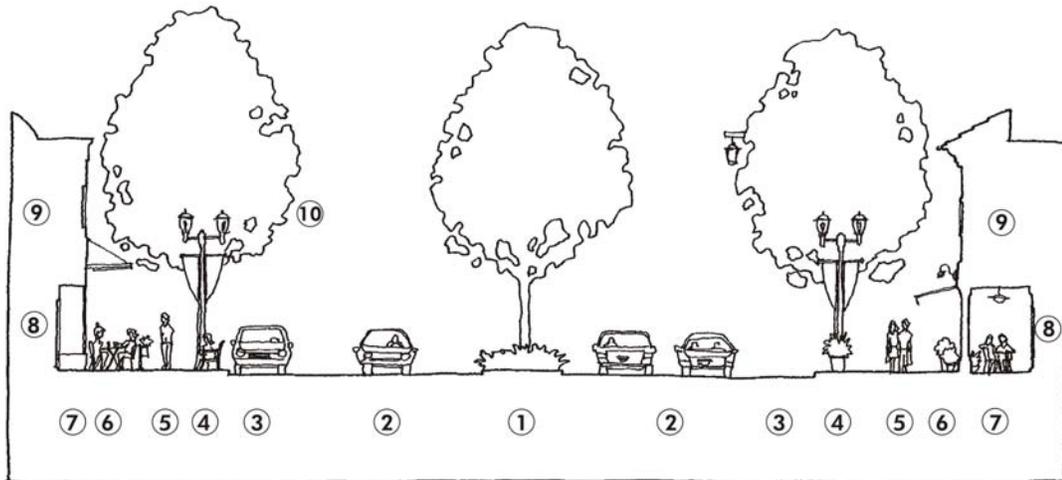


1. **Wide planted median**
2. **Multiple travel lanes each direction typ.**
3. **Travel lane or curb-side parking**
4. **Wide parkway w/ continuous sidewalk**
5. **Setback w/ abundant landscape**
6. **Adjacent use (ex: office / light industrial campus)**
7. **Large scale, tall street trees**
8. **Accent planting (ex: flowering trees)**

- Improve the visual quality of the community's major thoroughfares with abundant landscape. The design of these streets should serve as a physical and visual accompaniment to the community's open space network.
- Provide generous medians and parkways that support extensive plantings. In addition, medians and parkways should accommodate distinctive gateways at the City's boundaries.
- Include continuous sidewalks with wide parkways that establish a physical and psychological separation between pedestrians and autos. Benches and pedestrian-scaled light fixtures should also be included, where appropriate.

- Plant street trees of considerable height and stature appropriate to the scale and function of the street. Flowering trees and shrubs may be included for color interest and to augment the appearance of the street.
- Along Lambert Road east of SR-57, investigate strategies and programs to coordinate with private property owners to create a unified street presence of slopes and fences facing onto Lambert Road.

Boulevard Corridor

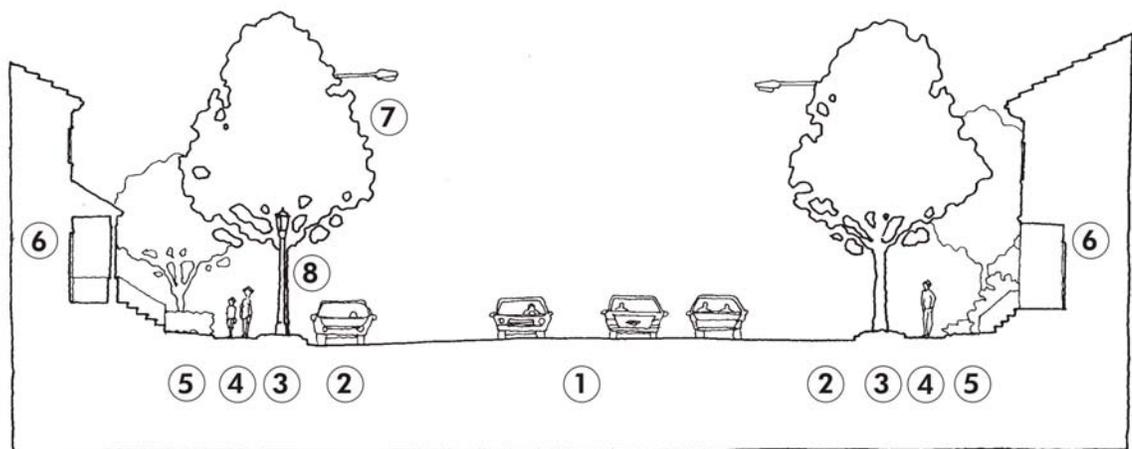


- | | |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1. Planted median | 6. Zone for commercial activity
<i>(ex: outdoor dining)</i> |
| 2. Travel lanes | 7. Recessed shop entry / Pedestrian arcade |
| 3. Curbside parking | 8. Ground floor commercial |
| 4. Zone for pedestrian amenities
<i>(trees, lighting, furniture)</i> | 9. Upper floor office or residential |
| 5. Clear pedestrian passage
<i>(5' min. width)</i> | 10. Large canopy trees |

- Make Boulevards Corridors active streets that accommodate a balance between vehicular, transit, and pedestrian modes of travel. In particular, pedestrians should find these streets amenable to walking, strolling, lingering, meeting, and conversing.
- Provide wide sidewalks that accommodate a clear pedestrian path at least five feet wide, as well as space for streetscape amenities and commercial activities such as sidewalk dining. In general, streetscape amenities should be located adjacent the curb, and on-street parking is encouraged.

- Choose street trees that hold up to urban conditions, planted in tree wells. Tree species and spacing should establish a formal rhythm and should be of sufficient stature to reinforce the space of the street.
- Provide streetscape amenities at frequent intervals, and consider opportunities for public art, environmental graphics, special sidewalk paving, and crosswalk enhancements. At a minimum, furniture should include pedestrian-scaled light fixtures, benches, trash receptacles, and planters of compatible design.
- Emphasize development focused toward the street, with parking located behind or next to buildings rather than in front.

Major Linkage

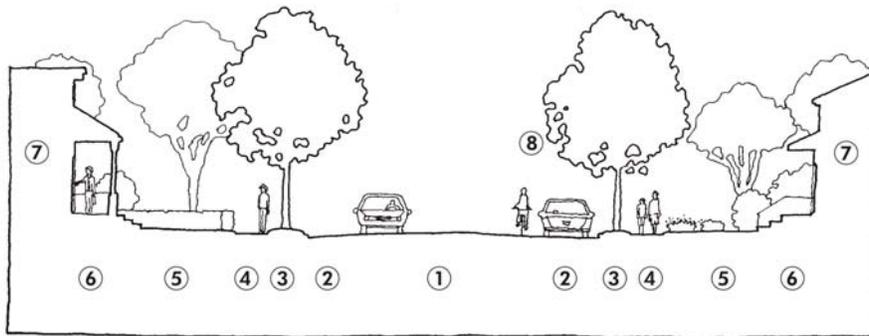


- 1. Travel lanes (no. variable & may include planted median)**
- 2. Curb-side parking**
- 3. Tree lawn**
- 4. Sidewalk (min. 5' wide)**
- 5. Setback w/ abundant landscape**
- 6. Adjacent use oriented to street (ex: townhouses)**
- 7. Canopy street trees adjacent curb**
- 8. Streetscape amenities (ex: pedestrian-scaled light fixture)**

- Improve pedestrian access throughout the community by incorporating pedestrian-oriented design features along streets identified as major linkages. Street trees and other streetscape amenities should communicate that these streets are part of the community's open space network.

- Provide tree lawns or wide sidewalks that accommodate street trees and other streetscape amenities. In most instances, street trees will be located adjacent the curb to heighten the sense of separation between the pedestrian and the automobile.
- Plant street trees that offer overhead cover for pedestrians and create a pleasant rhythm that unifies and leads the eye down the street. Choose species that will distinguish these streets as principal connectors.
- Include street furniture and other streetscape amenities that promote pedestrian safety and comfort, and consider opportunities for bus stop and crosswalk enhancements. Pedestrian-scaled light fixtures and benches that allow periodic rest are especially important.

Neighborhood Linkages

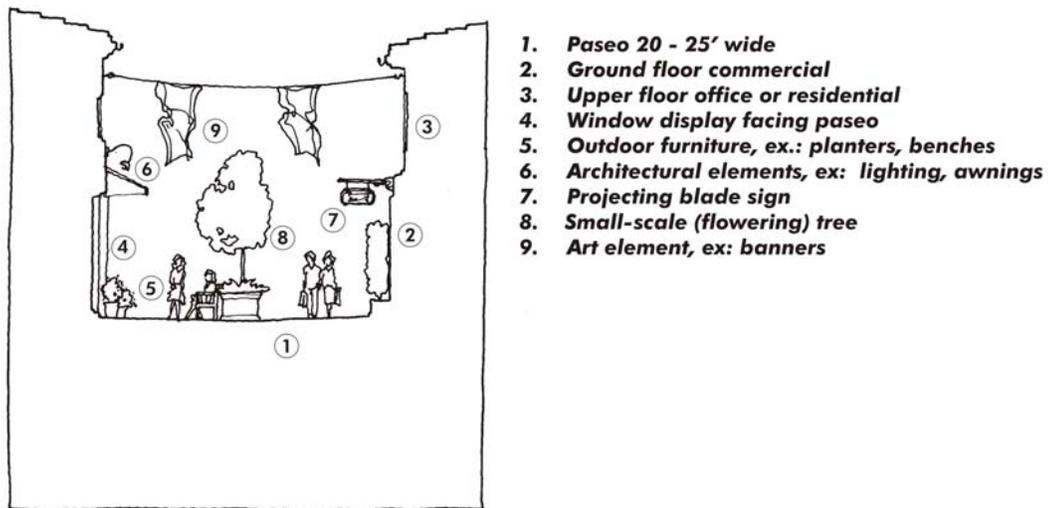


1. **Travel lane each direction (approx. 10' wide each lane)**
2. **Curb-side parking (approx. 8' wide)**
3. **Tree lawn (min. 3' wide)**
4. **Sidewalk (min. 4' wide)**
5. **Front yard area (15' typ.)**
6. **Entry porch**
7. **Dwelling oriented to street**
8. **Spreading canopy trees**

- Design neighborhood linkages streets to support neighborliness and comfortable movement on foot. Residents should feel at ease walking along these streets and should experience a sense of neighborhood pride.
- Encourage narrow travel lanes with curb-side parking to slow traffic. Consistent street tree planting will also narrow the perceptual width of the street.

- Plant spreading, deciduous canopy trees in generous tree lawns measuring at least three feet wide. Street trees may be chosen to lend a street or neighborhood a unique identity, and a formal arrangement is not necessary.
- Orient residences to the street to create attractive street scenes and increase security. Shallow setbacks and front porches are encouraged, providing a pleasant transition between the sidewalk and the dwelling.

Pedestrian Passage



- Provide pedestrian passages and paseos in conjunction with commercial and mixed-use developments. Pedestrian passages should conveniently and comfortably connect building entrances, outdoor spaces, sidewalks, and parking.
- Incorporate outdoor furniture and other pedestrian amenities along outdoor passages. Benches and planters are especially encouraged, but should be placed at locations that will not interrupt pedestrian circulation.
- Consider opportunities for public art that will draw people through the space. Other features such as kiosks and directories are also recommended.

Public Plaza



1. **Defined space**
2. **Seating**
3. **Civic art**
(ex: *interactive fountain*)

- Encourage developers to incorporate public plazas within the community's most intensely active places. Plazas may be provided by public and/or private sector initiative, but should accommodate public use.
- Establish immediate physical and visual connections between public plazas and sidewalks. Public plazas should be located at or near the same grade as adjacent sidewalks.
- Dimension public plazas in accordance with their surroundings. Plazas should be defined spaces that enhance the street environment without harmful interruptions in retail and pedestrian continuity.
- Enliven public plazas with civic art and fountains, as well as seating and shade. Public plazas should accommodate comfortable human occupation and use.

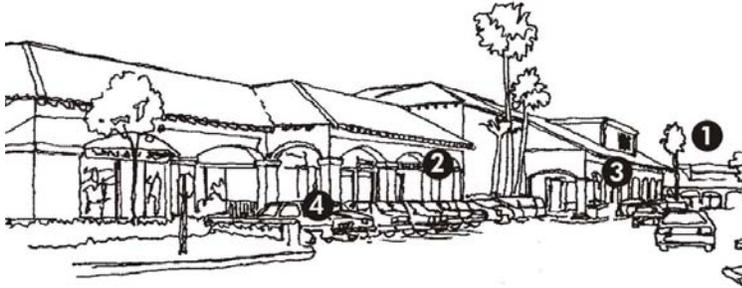
PRIVATE REALM URBAN DESIGN PALETTE

The Private Realm Urban Design Palette features design recommendations for varied development types:

- Regional/Community Shopping Center
- Local Shopping Center
- Main Street Commercial
- Mixed Use: Housing over Retail
- Mixed Use: Urban Village
- Multi-family Residential
- Single-family Residential
- Office and Industrial Campus



Regional/Community Shopping Center



1. **Common design theme**
2. **Articulated building facades**
3. **Highly visible public entrances**
4. **Pedestrian arcade**



- Use shopping center buildings and/or landscape treatment to define street corridors. To the maximum extent feasible, a portion of the development's buildings should contribute to definition of the street edge, especially at street corners.
- Reduce the visual and environmental impact of expansive parking lots. Numerous trees and plantings should shade parking areas, define circulation routes, and screen undesirable views of parking from adjacent properties.
- Give large-scale shopping centers a unified architectural character. A common design theme for all buildings, signage, and landscape treatment is encouraged, including freestanding pad buildings.
- Minimize large, unbroken wall surfaces, and provide highly visible public entrances to all buildings and uses. In particular, public entrances and heavily trafficked outdoor areas should incorporate human-scaled details such as canopies and window displays.
- Provide well-marked and comfortable pedestrian walkways including pedestrian circulation within parking lots with connections to adjacent sidewalks and safe access from parking. Pedestrian circulation routes within parking lots should be clearly delineated, and pedestrian amenities in the form of courtyards, plazas, and covered walks are encouraged.

- Generate visual interest along outdoor passages and paseos. Building facades with articulated entrances, ground floor transparency, and architectural details such as accent lighting are recommended.

Local Shopping Center



1. **Building defines street corner (parking in rear)**
2. **Neighborhood scale**
3. **Large, transparent shop windows**
4. **Awnings**

- Site local shopping centers in whole or in part close to the street. In particular, buildings should define the edges of street corners.
- Reduce the visual impact of parking on local neighborhoods. To the maximum extent feasible, on-site parking should be located to the rear or side of buildings, with shade trees and extensive plantings that screen undesirable views from sidewalks and adjacent properties.
- Create a street-level environment that is pedestrian-friendly. Design features such as arcades, canopies and awnings, transparent windows and windows displays, etc. should be incorporated.
- Respond to adjacent residential uses with a sensitive transition in scale and massing. For example, building mass should be broken down with step backs in height, articulated sub-volumes, and horizontal and vertical façade articulation.
- Incorporate functional pedestrian connections to adjacent uses. Nearby residential uses should benefit from convenient access to local shopping and services.

Main Street Commercial



1. ***Buildings define sidewalk edge***
2. ***Multiple shop entrances along sidewalk***
3. ***Recessed shop entrance***
4. ***Large, transparent shop windows***
5. ***Pedestrian-scaled signage***

- Build an especially strong relationship between the building and the street. Buildings should be configured to maintain a continuous edge along the sidewalk and define public space.
- Design buildings to encourage multi-tenant occupancy and walk-in traffic at the street level. Uses that generate negligible walk-in traffic are discouraged from street-front locations.
- Provide a frequent cadence of shop entrances along the street. Recessed entries are encouraged; however, grade separations between sidewalks and ground floor commercial uses are discouraged.
- Encourage the creative expression of individual storefronts, and use shop windows to help animate the street and sustain attention. Generous street level windows that are predominantly transparent glass are strongly encouraged.
- Emphasize design elements such as separate storefronts, display windows, shop entrances, exterior light fixtures, awnings and overhangs, and pedestrian-oriented signage. These features will add interest and give a human dimension to street level facades.
- Generate visual interest along outdoor passages and paseos. Building facades with articulated entrances, ground floor transparency, and architectural details such as accent lighting are recommended.

Mixed Use: Urban Village



1. **Buildings define street**
2. **Active uses along sidewalk**
(ex: ground floor shopping)
3. **Upper floor housing w/ balconies**
4. **Streetscape amenities**
(ex: special paving, street trees)

- Encourage horizontal and vertical mixing of commercial and residential uses. The inclusion of apartment, townhome, housing over commercial, and main street commercial project types will contribute to a village atmosphere that accommodates live, work, and play.
- Emphasize a street-oriented development pattern. In general, buildings should visually define streets and important public spaces, and provide active uses along sidewalks.
- Incorporate outdoor spaces that are activity oriented and support public gathering. Well-defined parks, plazas, courtyards, and connecting sidewalks and paseos should create a network of pedestrian spaces.
- Use subterranean or interior parking courts to minimize the visual impact of parking. The location and design of parking should not prohibit the desired street-oriented development pattern or inhibit the provision of comfortable and functional outdoor spaces.

Mixed Use: Housing Over Retail



1. ***Building sited near sidewalk edge***
2. ***Ground floor shop w/ awnings***
3. ***Large, transparent shop windows***
4. ***Visually distinct upper floor housing***
5. ***Balconies & bays***

- Support a street-oriented development pattern, with buildings sited at or near the sidewalk edge. Mixed-use structures should be a component of main street commercial development and other areas where pedestrian activity is strongly encouraged.
- Rely on ground floor commercial space with frequent sidewalk entrances to promote pedestrian activity along the street. In particular, ground floor commercial uses should offer shops and services to local residents.
- Include communal and private open space areas for project residents. These spaces should be designed to limit intrusion by non-residents.
- Make ground floor commercial uses visually distinct from the residential space above. Dwelling units should exhibit a residential character, and residential entrances should read differently from entrances to ground floor commercial uses.
- Incorporate upper floor balconies, bays, and windows that overlook the street and enliven the street elevation. These will also communicate the residential function of upper levels.

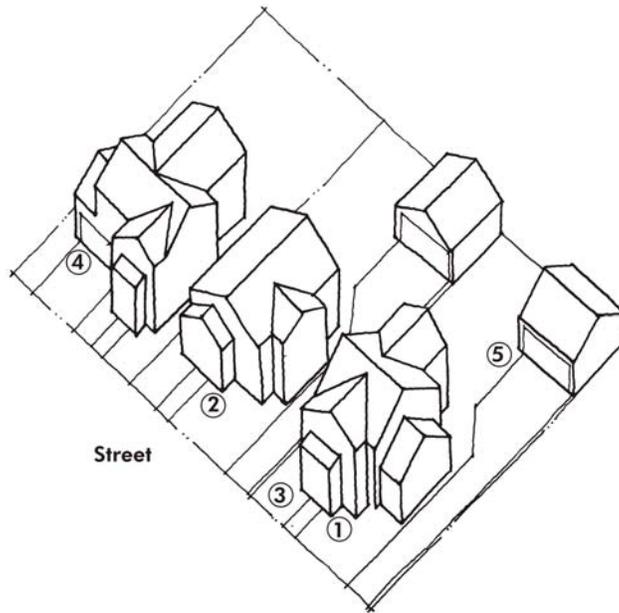
Multi-Family Dwellings



- 1. Domestic scale and appearance**
- 2. Dwellings oriented to street w/ entry stoops**
- 3. Articulated facades**
- 4. Parking interior to block**

- Reduce the bulk of multi-family buildings, including a transition in scale to adjacent single-family dwellings. Building facades should be articulated to portray a domestic scale and give identity to individual dwelling units.
- Locate parking to reduce its visibility from streets and open space areas, and restrict parking from within required setbacks. Subterranean parking and parking courts interior to a block are appropriate solutions.
- Provide attractive, centrally located communal open space with functional amenities. The amount of communal open space should increase with the size of a multi-family development to meet the social and recreational needs of its inhabitants.
- Include private outdoor space in conjunction with each dwelling unit. Private open space may include patios, terraces, and well-sized balconies.

Single-Family Dwellings

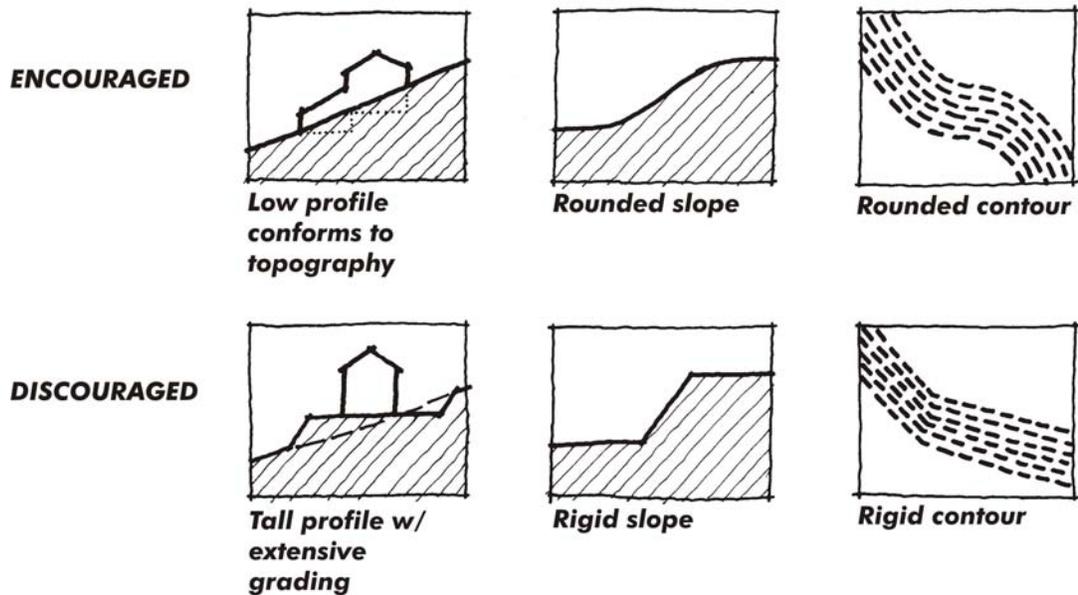


1. **Dwellings oriented to street**
2. **Front porch**
3. **Shallow front yard setback (15' +/-)**
4. **Garage setback from front elevation**
5. **Garage located to rear of property**



- Infill single-family residential neighborhoods with dwellings that approximate the scale of established residences. Excessively large dwellings that dominate the surrounding neighborhood are discouraged.
- Create a pleasing variety of homes within low-density residential developments. In particular, dwellings with identical elevations should not be placed on adjacent lots, and developments must include single-story units and/or building forms.
- Avoid repetitive placement of garage doors and reduce their visual prominence. Dwellings should orient to the street, with the garage setback from the front elevation or placed to the rear of the property.
- Promote site configurations that create useable yard areas. For example, consider zero-lot line layouts where they do not conflict with the dominant pattern of development.
- Articulate facades to add interest, reduce monotony, and create identity from dwelling to dwelling. Dwellings should present a simple and pleasing composition that uses a common vocabulary of forms, architectural elements, and materials.

Hillside Residential



- Restrict construction on environmentally sensitive and visually prominent locations. Dwellings should be sited well below the ridgeline, and avoid prominent landforms, site features, drainageways, and vegetation.
- Use naturalistic grading techniques that blend grading with the existing topography. Grading should use rounded contours and slopes to minimize the apparent disturbance to the site.
- Revegetate with native and/or naturalized species where grading or other activities have disturbed the site. In general, planting should be drought resistant and control erosion.
- Design unobtrusive dwellings, requiring stepped, single story, and low profile building and roof forms that conform to the hillside topography. Tall building forms that block views and detract from the largely undeveloped character of the hillsides are strongly discouraged.
- Incorporate architectural features that reduce bulk, such as eaves, bay windows, varied elevations. Naturalistic materials and colors are also encouraged.

Office and Industrial Campus



1. ***Facade modulation***
2. ***Highly visible entrance lobby***
3. ***Abundant landscape***

- Organize industrial and large office developments around shared courts, quadrangles, and greens. Multiple paths should connect on-site buildings and uses, transit stops, and public sidewalks.
- Support street-level activity. Buildings should provide ground-floor interest, transparency, and openness, especially views into lobbies.
- Design buildings with individual character and identity, including a highly visible main entrance. Monolithic buildings are discouraged, and massing should be broken down with vertical and horizontal façade modulation.
- Provide abundant landscape in keeping with a campus setting. For example, “orchard” tree planting should be used within parking lots for shade and visual relief.

ECONOMIC DEVELOPMENT

A healthy local economy consists of a highly trained and educated workforce, diversified businesses, accessibility to major highways and freeways, available housing, financial assistance to businesses, and infrastructure ready to serve technologically advanced businesses. With this Brea can easily to attract, retain, and expand the City's business community. This will in turn ensure Brea's fiscal and financial health, allowing for a high level of public services and programs. Economic development goals can set the tone and direction for the business community in Brea.

Context

Brea has a true balance of quality office, industrial, retail, residential, recreational, and entertainment uses that offer many employment opportunities and provide a healthy tax revenue base. Brea is also a regional retail center, providing a variety of goods and services for many north Orange County residents. This diversified business sector includes manufacturing, service industries, retail and distribution outlets, and professional corporations.



Three large office parks within Brea can be found along State College Boulevard adjacent to the Brea Mall, Imperial Highway and Valencia Avenue, and at the intersection of Lambert Road and SR-57.

In addition, Brea is actively involved in many projects and programs to enhance the business community. The City aggressively offers business retention and attraction programs, housing programs for low- to moderate-income families, and property redevelopment and revitalization programs. Brea constantly monitors available manufacturing and industrial space and provides information to businesses interested in relocating or expanding in the City of Brea. The City continually looks for new initiatives to examine the availability of appropriate infrastructure, such as fiber optics, to accommodate the growing needs of high-tech businesses.

Economic development is a regionally important issue. Many residents work outside of Brea, and many employees who live in other communities come to Brea to work. Census data (year 2000) shows at least 18,000 working residents living in Brea but 40,000 employment positions in the City, creating a net flow of approximately 22,000 jobs. Regional cooperation is needed because transportation and housing cross city lines, and Brea's decisions can affect neighboring cities. Regional cooperation comes from the North Orange County Partnership (NOCP). This organization was formed to ensure that the North Orange County region fully participates in the economic growth of the County and the greater Southern California metropolitan area. The NOCP consists of economic development professionals from the cities of Brea, Buena Park, Fullerton, La Habra, Placentia, and Yorba Linda.

Businesses and Employment

The approximate 2,500 businesses in Brea employ at least 40,000 people. Four primary employment sectors make up Brea's economic base: trade; finance, insurance, and real estate (FIRE); services; and manufacturing. The advantage of such a diverse business composition means that the City can withstand an economic downturn without experiencing an entire collapse within the local economy.

Trade includes both retail and wholesale trade. All of the retail trade sectors account for the greatest share of employment in the City. Table CD-8 shows the total share of businesses in Brea compared to the region and the County. The percentage of retail employment results from the City serving as a retail center for the region. The Brea Mall is the largest regional retail mall in North Orange County. In addition to the Mall, Brea Union Plaza, Gateway Center, Downtown Brea, and the Brea Marketplace are significant power centers under retail trade.

The FIRE industries account for 12.2 percent of total employment, which is again higher than the region and Orange County at 7.6 percent and 8.4 percent, respectively. Most of this employment is concentrated in the insurance carrier and agents sector.

**Table CD-8
Share of Total Businesses and Employment (2001)**

Business Sector	Brea		Region (A)		Orange County	
	Businesses	Employees	Businesses	Employees	Businesses	Employees
Services	37.7%	19.8%	42.2%	31.4%	43.8%	35.4%
Retail Trade	24.4%	26.5%	22.3%	21.8%	21.8%	20.2%
Manufacturing	11.6%	20.9%	7.2%	17.1%	7.9%	18.5%
FIRE (B)	9.4%	12.2%	8.8%	7.6%	10.0%	8.4%
Wholesale Trade	7.6%	10.2%	6.9%	8.0%	6.1%	6.7%
Construction	4.9%	4.5%	7.8%	7.9%	5.6%	3.8%
Other (C)	4.5%	6.0%	4.7%	6.3%	4.7%	7.0%
<i>Total</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>	<i>100.0%</i>

(A) Region (North Orange County) includes Brea, Fullerton, La Habra, Placentia, and Yorba Linda.

(B) FIRE is an acronym for Financial, Insurance, and Real Estate businesses.

(C) Other includes agriculture, mining, government, transportation, and public utilities.

Sources: Claritas and Keyser Marston Associates, Inc.

Manufacturing employment accounts for nearly 21 percent of total employment in the City, with a concentration of manufacturing and light industrial uses in the western area of City along Imperial Highway and in the middle portion of the City east of Kraemer Boulevard along Imperial Highway.

Business Growth

Supporting economic development means making space for both existing businesses to expand and for new businesses to locate in Brea. To ensure adequate supply of land, the City will need to plan in advance to anticipate business expansion potential and to attract new or added uses to the local economy. Expanding or relocating businesses seek not only a sufficient land supply, but also adequate access and infrastructure in an attractive setting with sufficient amenities and resources.

Land use policy accommodates new growth by allowing for the continued economic mix and diversity of businesses. Policy plans for increases in office, industrial, and commercial uses, and accommodates for new mixed-use development.



The Brea Mall provides retail opportunities for Breans and the region.

Employment Growth

Between 1999 and 2020, Brea can expect an increase in jobs available in the community to 49,700 (23 percent increase), as shown in Table CD-9. This projected growth is much higher than that projected for the region (9 percent), but lower than Orange County (32 percent) as a whole. Also, the City's population will grow, fueling employment growth by creating demand for additional retail, service, and public-sector uses and jobs. With a diverse employment base and expansion of employment opportunities for local residents, Breans will continue to benefit from the local economy.

Table CD-9
Employment Projection 1990 to 2020

Area	1990 (A)	1999 (B)	2020 (C)	Percent Increase (1999 to 2020)
Brea	34,284	40,483	49,700	23%
Region (D)	140,867	157,178	170,710	9%
Orange County	1,274,424	1,500,663	1,975,000	32%

(A) Institute for Economic and Environmental Studies (IEES), 2002 and 1990 Census Transportation Planning Package

(B) Claritas and Keyser Marston Associated Inc, 2001

(C) Southern California Association of Governments (SCAG) 2001 RTP Projections

(D) Region (North Orange County) includes Brea Fullerton, La Habra, Placentia, and Yorba Linda.



The Brea Job Center provides a neutral site where day laborers may be hired by potential employers. Men and women with expertise in plumbing, landscaping, homemaking, painting and other skills are ready to work. Potential employers may drop by or call the Job Center to arrange for help in their home or business.

Redevelopment

The Brea Redevelopment Agency was formed to provide a tool to eliminate blighting conditions and ensure that the City's economic base would grow and remain healthy through new public improvements, commercial development, and affordable housing. Over the years, the Agency adopted and amended several project areas, resulting in numerous successful projects ranging from the Brea Mall and the Civic and Cultural Center to office parks, retail centers, residential projects and public improvements. Community-involved planning efforts such as the Brea Project and the Downtown Charette ensured that public input was included throughout any redevelopment process.

The Agency made significant progress during the later half of the 1990s by restoring a vibrant downtown commercial district, providing numerous affordable housing opportunities, and other economic development successes. Under the guidance of the Economic Development Department, the Agency looks forward to continuing to use redevelopment authority strategically to target improvements within project areas.



New mixed-use development in Downtown Brea is so successful that potential tenants wanting to move into residential units above commercial space are placed on a waiting list.

Economic Development Challenges

Although Brea's economy exhibits good health, the City faces several challenges as it continues to grow in the future. The challenges, however, are not unique to other cities or the region:

- **Underutilized and outdated commercial shopping centers.** While larger commercial centers are currently enjoying successes within the retail market, older and outdated commercial centers are struggling because of secondary locations and loss of market share to newer and larger commercial centers within the City. An example of this issue is the Brea Marketplace, which has been struggling and will more than likely find it difficult to retain tenants, given the number of healthy, vibrant centers with better locations and higher visibility nearby. Due to the location of the center, adjacent to the Brea Mall, Cultural and Civic Center, and high-rise office buildings, this center is an ideal place for intense mix-use combining commercial, office and residential uses to continue the successes of Downtown Brea.
- **Shortage of Industrial Buildings.** Vacancy of industrial space within Brea is very low, and economists believe that Brea has a shortage of industrial buildings, given the City's prime location to regional transportation corridors. Land use policy plans for at least a 10 percent increase in industrial space square footage over the time horizon of the General Plan.
- **Automobile congestion.** Traffic congestion has plagued many Orange County cities and can be a deterrent for potential businesses choosing to locate to Brea. As population and employment grows, congestion will continue to be a foreseeable problem in the future. The Circulation section of this chapter describes the goals and policies designed to confront the problem now and in the future.

- **Housing availability.** Available and affordable housing must be accommodated as Brea continues to expand economically. In the 1990s, the Economic Development Department and the Redevelopment Agency participated in several projects that created new affordable housing opportunities. Brea has identified a need not just for affordable housing but also for homes priced above \$500,000 that establish a move-up market for executives and other high wage earners who wish to remain in Brea as their earning power increases.

Goals and Policies

The Economic Development goals and policies call for continued economic successes and outline strategies the City will pursue keep Brea on track as a community that experiences a comfortable quality of life.

Tax Base Revenue Growth

Economic growth can bring many benefits to the community, including jobs, housing, and new revenue. New growth will lead to higher tax revenue, thus benefiting residents and the community directly by enhancing many of the public services the City provides. The City will collaborate with the business community to facilitate growth, development, and infrastructure improvements that benefit residents and businesses alike.

Goal CD-23	Encourage and facilitate activities that expand the City's revenue base.
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Policy CD-23.1	Encourage a broad range of business uses that provide employment at all income levels and that make a positive contribution to the City's tax base.
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Policy CD-23.2	Provide opportunities for mixed-use, office, manufacturing, and retail development that respond to market and community needs in terms of size, location, and cost.
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Policy CD-23.3	Track retail trends, and tailor regulations to respond to market changes, maximize revenue, and maintain the appropriate business mix.
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- Policy CD-23.4 Encourage new development along highly visible corridors that is pedestrian oriented and includes a mixture of retail, residential, and office uses.
- Policy CD-23.5 Use the City's redevelopment authority to create opportunities for businesses to establish in Brea and bring high-skill and professional jobs and new revenue sources into the community.
- Policy CD-23.6 Examine options for the development of new infrastructure for new technologies and businesses that use those technologies.
- Policy CD-23.7 Recognize the need of the work force to have convenient access to safe, affordable, and quality child care.

Diversity

Brea understands that part of its economic stronghold stems from its employment diversity of office, retail, manufacturing, and industrial businesses. Retaining and expanding these businesses will continue the economic benefits the City maintains, as well as those seeking employment opportunities in Brea.

Goal CD-24	Maintain and expand the City's diverse employment base, including office, retail, manufacturing, and industrial businesses.
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- Policy CD-24.1 Engage in activities that promote Brea as a good place to work and develop a business.
- Policy CD-24.2 Identify opportunities to assist under-performing office and employment centers to restructure their tenant mix, market assists, and improve individual customer bases to remain competitive in today's changing market place.
- Policy CD-24.3 Support training and educational opportunities in the City to develop a highly trained and professional work force, and encourage local business to hire local residents.

Policy CD-24.4 Work with organizations such as the Chamber of Commerce to implement marketing programs that identify economic opportunities in the City.

Policy CD-24.5 Continue to work with surrounding cities to strengthen North Orange County Regional Economic Development.

Expansion of Downtown Brea

To continue the successes of Downtown Brea, expanding similar uses in areas adjacent to downtown can help revitalize underutilized and struggling properties.

Goal CD-25	Extend the visual identity, mixture of land uses, and fiscal success of Downtown Brea into adjacent areas, including North/South Brea Boulevard.
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Policy CD-25.1 Coordinate development of residential, office, small retail centers, and similar uses that would serve local residents and would also benefit from the high visibility and access from Downtown Brea.

Policy CD-25.2 Reconfigure parcels that have poor visibility from the street and are difficult to access by car or through walking.

Revitalization of Aging Business Centers

Brea recognizes the need to revitalize its older commercial areas and support reinvestment and business growth in these areas. Encouraging economic growth can also help meet identified community needs.

Goal CD-26	Revitalize aging business centers with uses that bring jobs, housing, and new revenues into the community.
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Policy CD-26.1 Continue to use the City's redevelopment authority to facilitate revitalization of blighted and economically struggling business centers and neighborhoods.

Policy CD-26.2 Provide low-interest property rehabilitation loans to Brea businesses through Economic Development Department programs.

Policy CD-26.3 Explore opportunities for mixed-use development projects on sites historically supporting commercial centers.

**Implementation
Guide**



See Section V of the Implementation Guide for action programs.

GROWTH MANAGEMENT

Given its central location at the crossroads of Orange, Los Angeles and San Bernardino counties, Brea experiences the both positive and negative effects of regional growth. As more people move into the area, they spend tax dollars at the Brea Mall and at shops and restaurants in Downtown, and they drive every weekday to major employment centers in the community. This activity brings increased congestion on the major arterials through Brea: Carbon Canyon Road, Imperial Highway, Lambert Road, and Valencia Road. Brea continues to work cooperatively with surrounding cities and counties to manage growth to minimize adverse effects on the City. More importantly, Brea looks locally to balance its own growth and ensure that the pace of new development and welcome economic growth does not outpace the ability of the City and the Brea-Olinda Unified School District to provide services and infrastructure necessary to achieve “livable community” goals.



Infill housing development conserves the City's resources of undeveloped land, provides housing near employment opportunities, and often provides lower associated development costs.

Future growth in Brea will occur as residential, commercial, and industrial infill, as well as new homes in limited hillside areas, are constructed. The outlying areas will require substantial investments in roads, water and sewer lines, and other infrastructure. Proper phasing of new development in concert with augmenting the capacities of infrastructure and public facilities, as identified in the Community Services and Community Resources Chapters, will ensure sufficient levels for service of residents and businesses.

To assure that new development does not negatively impact the existing levels of public services provided by the City, the Growth Management Element provides guidance in balancing provision of public facilities and infrastructure in a manner that will adequately serve current and future residents. In addition, planning for future growth is also required by Orange County Measure M, the Revised Traffic Improvement and Growth Management Plan approved in 1990 by Orange County voters. Measure M allocates funds to provide transportation facilities in Orange County. The funds raised by Measure M are returned to cities to be used for local and regional transportation projects. To qualify for funds, each city must comply with the Countywide Traffic Improvement and Growth Management Program, which requires adoption of local growth management policies.

Context

Plans and programs adopted by Orange County and the Southern California Association of Governments have bearing on the scope and context of Brea's growth management policies.

Orange County Revised Traffic Improvement and Growth Management Plan (Measure M)

Measure M, adopted by Orange County voters in 1990, established a one-half cent sales tax for countywide transportation improvements. All eligible jurisdictions receive 14.6 percent of the sales tax revenue based on factors such as the population ratio, Master Plan of Arterial Highways miles, and total taxable sales. To receive the funds, cities must have a local Growth Management Plan. Funds can be used for local projects, as well as ongoing maintenance of local streets and roads. This program was designed to create a process among Orange County jurisdictions to coordinate and implement traffic improvements and planning on a countywide basis.

To receive its allocations of Measure M funds, Brea must submit a statement of compliance with the growth management components addressing the following:

- 1) **Adoption of a Growth Management Element, or similar General Plan component**, that includes traffic Level of Service (LOS) standards. The general target standard should be LOS D for intersections, recognizing that lower LOS standards for certain intersections in urbanized areas may be appropriate if such affected roadways carry a high proportion of regional traffic (for example, Imperial Highway).
- 2) **Develop a Mitigation Program**. This program shall ensure that new growth pays its fair share of the costs associated with that growth. To meet the requirements, Brea is required to: a) adopt a development mitigation program to ensure that development is paying its share of the costs associated with that development; b) impose or continue a traffic impact mitigation fee; c) ensure that new revenues provided by a sales tax increase measure shall no be used to replace private developer funding which has been committed for a project.
- 3) **Participate in Inter-jurisdictional Planning Forums**. Brea, in cooperation with the City-County Coordination Committee, is required to participate in interjurisdictional forums to cooperate in easing cumulative traffic impacts and coordinating improvements in transportation and other facilities. Brea has been an ongoing participant in the Four Corner Study effort to define options for easing traffic congestion where Orange, Los Angeles, Riverside, and San Bernardino counties converge.
- 4) **Development of a Seven-Year Capital Improvement Program**. Brea must determine the capital projects needed to meet and maintain both traffic Level of Service and Performance Standards. The Capital Improvement Program shall include approved projects and an analysis of the costs of the proposed projects, as well as a financial plan for providing the improvements.
- 5) **Address Housing Options and Job Opportunities** as related to transportation demand on a city, sub-regional, and countywide basis. Through adoption and implementation of the Mixed Use I, II, and III General Plan land use designations, Brea creates opportunities for housing and jobs to be located in close proximity to each other, thereby reducing vehicle trips.

- 6) **Adopt a Transportation Demand Management Ordinance** or alternative mitigation to reduce single-occupancy automobile travel.

**Southern California
Association of
Governments**

The Southern California Association of Governments, or SCAG, has adopted a Growth Management Plan that applies to the six-county SCAG region (Orange, Los Angeles, San Bernardino, Riverside, Ventura, and Imperial counties). This plan recommends ways that cities and counties can redirect regional growth to minimize traffic congestion and improve environmental quality. A key goal of SCAG’s Growth Management Element is to better balance jobs and housing within subregions.

The South Coast Air Quality Management District supports the SCAG Growth Management Plan through implementation of the Air Quality Management Plan (AQMP). The AQMP mandates a variety of measures to reduce traffic congestion and improve air quality. To comply with the AQMP, Brea has adopted an Air Quality Implementation Plan to meet the requirements for local jurisdictions as identified in the regional AQMP. New development in the City must comply with the Air Quality Implementation Plan.

Goals and Policies

Inherent in the Land Use and Infrastructure sections of this Chapter is the goal to balance growth with infrastructure and services. The following goals and policies tie together all development goals under the unifying theme of growth management, and indicate Brea’s commitment to continue to work with other jurisdictions to address regional concerns.

Goal CD-27	Promote balanced growth with supporting public services infrastructure.
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Policy CD-27.1 Integrate land use and transportation planning to provide adequate transportation system service standards.

Policy CD-27.2 Monitor and maintain service levels standards for public services and infrastructure.

Policy CD-27-3 Ensure that new development is in balance with the provision of services and/or funding.

Policy CD-27.4 Explore infill development opportunities wherever possible as open space becomes more limited.

Policy CD-27.5 Support programs that match Brea residents with local jobs to reduce long commutes.

Goal CD-28 Assist in the provision of adequate regional and local transportation facilities.

Policy CD-28.1 Cooperate with other agencies to address regional issues and opportunities related growth, transportation, infrastructure, and other planning issues.

Policy CD-28.2 Promote the expansion and development of alternative methods of transportation.

Policy CD-28.3 Encourage the development of housing within close proximity to jobs and services.

Implementation Guide 

See Section VI of the Implementation Guide for action programs.