

**Appendix A    SCAG Aerial Land Use data  
description**



# **SOUTHERN CALIFORNIA 1990 AERIAL LAND USE STUDY**

## **LAND USE CODE DESCRIPTIONS AND KEY SIGNATURES Level III/IV**

The land use definitions and descriptions were developed by Aerial Information Systems, Inc. as a Modified Anderson Land Use Classification. This classification uses a hierarchical system, allowing easy aggregation and disaggregation of classes. Most uses in the 1990 Land Use Study of Southern California were mapped to the fourth level. The user may elect to use the second or third level, or any variation, in analyses or display. The descriptions below apply to land use characteristics in southern California, and may not apply to other geographic areas. Key signatures are described using natural color aerial photography.

### **1000 URBAN OR BUILT-UP**

Areas of built-up land characterized by intensive land use, where most of the land is covered by man-made structures because of human activity.

### **1100 RESIDENTIAL**

The residential category includes areas of single family residences, multi unit dwellings, and mobile homes. Also included is a mixed residential category that consists of two or more of the aforementioned groups. The units/acre listed can be used as an indicator of relative density to aid in analysis when using the land use study.

#### **1110 SINGLE FAMILY RESIDENTIAL**

These residential areas are typically made up of detached dwellings, where each structure houses a single family, located in an urban or suburban setting. (Single family residential units located in a rural setting are classified as code 1151 or code 1152 under Rural Residential.) These single family residences are usually served by all utilities, are on paved streets, and are provided with or have access to all urban facilities such as schools, parks, police, and fire stations.

Single family residential neighborhoods are normally large contiguous areas of residential lots. Some areas have subdivisions or tracts of homes with similar size or architectural design. In these areas the roofs may be similar in shape or color when viewed on the aerial photo. Typically, single family lots contain landscaped front and back yards, one driveway, and one walkway either to the sidewalk or to the driveway. The house usually contains one chimney, and one air-conditioning unit. Some lots may have swimming pools in the back yards. High or low density is determined by the size of the lot on which the residence is located. If an area is under construction, and the residential lots or pads are easily identifiable, then the unit may be coded with the appropriate density category.

**1111 High Density Single Family Residential**

This category contains single family detached residential units with a unit density of >2 units/acre. These units are typically found in modern urban and suburban subdivisions.

**1112 Low Density Single Family Residential**

This category contains single family detached residential units with a unit density of <2 units/acre. These units may include areas of urban ranch homes or estates. Also included are urban areas where single family lots have been established but houses have not been built on all of them and are not likely to be built in the near future. The homes are spaced at a density of <2 units/acre. In some situations, a low density area may be rural in appearance because it was once a rural area but is now within the urban setting or a transitional area.

**1120 MULTI-FAMILY RESIDENTIAL**

Multi-family units are attached residences, apartments, condominiums, and townhouses. Multi-family residences are usually served by all utilities, are on paved streets, and are provided with or have access to all urban facilities such as schools, parks, police and fire stations. Senior citizen apartment buildings are included in these classes. Also included are off-campus university owned housing and off-campus fraternity/sorority houses.

**1121 Mixed Multi-Family Residential**

This category is used when there is a mixture of multi-family uses (duplexes, triplexes, apartments, condominiums, and/or townhouses of any type), none of which is over 2.5 acres in size, and no one type dominates. This situation may occur in older neighborhoods.

**1122 Duplexes, Triplexes, and 2- or 3-Unit Condominiums and Townhouses**

This category is composed of duplexes, triplexes, and 2- or 3-unit condominiums and townhouses that are attached multi-family structures.

Duplex and triplex residences may occur together or mixed with single family houses in some older neighborhoods (see code 1121 and 1140). Typically the multi-unit structure is one story located on a lot approximately the same size as nearby single family residential lots. There may be minimal landscaping or yard space. On the aerial photo, one may be able to count the driveways, sidewalks, entryway overhangs, chimneys, or air conditioning units corresponding to the number of units in the structure. Some newer duplexes and triplexes occur as 2- or 3-unit structures in complexes as condominiums and townhouses, with common grounds.

### **1123 Low-Rise Apartments, Condominiums, and Townhouses**

This category includes multi-family structures of one to two stories and approximately 10 to 18 units/acre. The area consists of either a large single structure or a group of structures, of four or more units each, in a complex with associated common grounds, facilities and parking areas.

Typically low-rise apartments, condominiums, and townhouses occur together in large contiguous areas since land use is restricted to multi-family zoned areas. However, in some areas one to a few buildings may occur on individual lots in single family residential neighborhoods. In newer neighborhoods they may appear as a large complex composed of many structures of similar architecture with common grounds and facilities. Some older structures are U-shaped or O-shaped with a swimming pool in the middle. A parking level may be located underneath the living area, in which case it is not counted as a story. Parking for larger complexes may include garages or carports along the periphery of the complex. Low-rise apartments and condominiums are the most common types of multi-family structures in the study area. Also included are off-campus fraternity/sorority houses and senior citizen apartments. Residential units located above first floor commercial in buildings along a commercial strip are considered commercial use (1223, 1224). An area mapped as Low-Rise Apartments, Condominiums, and Townhouses may contain an occasional Medium-Rise building.

### **1124 Medium-Rise Apartments and Condominiums**

This category includes multi-family structures of three to four stories and >18 units/acre. The area consists of a large single structure or a group of structures, of four or more units each, in a complex with associated common grounds, facilities and parking areas.

Many medium-rise apartments and condominiums occur in older areas as hotel/apartments. Several may be located next to each other in compact areas. Some may occur as large complexes, composed of many structures of similar architecture, with common grounds and facilities. Medium-rise apartments and condominiums are not as common as low-rise. Senior citizen apartments are included. If an area contains commercial use on the first floor and multi-family residential use on the upper floors, then the area is considered strip commercial (codes 1223, 1224). Some older urban core cities contain apartment and condominium buildings predominantly of three, four, or more stories. An area mapped as Medium-Rise may contain occasional Low-Rise or High-Rise buildings. Use of stereoscopic viewing of aerial photos is essential in determining relative height in relation to other structures in the area.

### **1125 High-Rise Apartments and Condominiums**

This category includes multi-family structures of five stories or greater and >18 units/acre. The area consists of either a single large structure or a group of adjacent structures with common grounds, facilities

and parking areas.

Many high-rise apartments and condominiums occur as single or groups of high residential towers. Parking may be underground or in an adjacent parking structure. Smaller high-rise structures may contain only residential units with no other uses. High-rise residential structures are configured to maximize availability of window access to each individual residential unit. Thus the building may be long and narrow, or contain narrow lateral wings that provide window access. Senior citizen apartments are included. If an area contains commercial use on the first floor and multi-family residential use on the upper floors, then it is considered High-Rise Apartments and Condominiums.

### 1130 MOBILE HOMES AND TRAILER PARKS

These residential units are composed of mobile homes, trailers and pre-fabricated housing that are either stationary with foundations or that is on wheels and capable of being moved. Included are vacant and occupied spaces, and associated storage facilities for the complex. Mobile homes and trailer parks are usually served by all utilities, are on paved streets, and are provided with or have access to all urban facilities, such as schools, parks, police, and fire stations. This category does not include transient facilities such as recreational vehicle parks or campgrounds (see code 1880).

Mobile homes are typically long, narrow, and rectangular in shape. Most have a white signature when represented on an aerial photo, although some modern mobile homes may have a less reflective or colored roofing material. Some newer modular home or mobile home courts and subdivisions contain homes with false facades, giving the impression of an apartment or condominium complex, or single family houses.

#### **1131 Trailer Parks and Mobile Home Courts, High Density**

This category includes typical mobile home or trailer parks and pre-fabricated homes (>6 units per acre) that are in a contiguous area with trailer or mobile home spaces and associated facilities.

Trailer courts and mobile home parks normally have a high, closely spaced density of units within the lot with very limited landscaping. The mobile homes are parked side by side in parallel rows with an access drive along the front of the row. Also included are associated recreational vehicle storage lots within or next to the mobile home park.

#### **1132 Mobile Home Courts and Subdivisions, Low Density**

This category includes typical mobile and pre-fabricated homes located in lower density mobile home park or in a single family residential subdivision pattern on curbed named streets (<6 units per acre).

Individual mobile homes appear as in the description above (1131), although there may be additional architectural modification associated with it. Units are more widely spaced, with landscaping as in front and back yard areas of a normal subdivision. Each lot has its own driveway or walkway, similar to single family residential areas. Also included are associated recreational vehicle storage lots within or next to the mobile home park.

#### 1140 MIXED RESIDENTIAL

##### **1140 Mixed Residential**

This category includes areas where there is a combination of single family detached and multi-family dwellings of any type occurring together. Each individual residential type does not meet the 2.5-acre minimum mapping resolution and neither dominates. Typically these are located in older neighborhoods, where duplexes, triplexes, and apartment buildings occur among single family houses.

#### 1150 RURAL RESIDENTIAL

Rural Residential units include ranches, farmsteads, single mobile homes, and residences located in a rural setting. Typically these areas have limited urban services.

##### **1151 Rural Residential High Density**

This category is composed of a group of homes in a rural setting at a density of >2 units/acre. Units may contain backyard animal shelters or pens for non-commercial livestock. This class does not include commercial agricultural land, but does include backyard non-commercial agricultural activity, including field crops, groves, horse facilities, barns, and other agricultural uses. Backyard agricultural is mapped as part of the 1151 polygon.

##### **1152 Rural Residential Low Density**

This category includes homes located in a rural setting at a density of <2 units/acre. Included are backyard animal shelters or pens for non-commercial livestock. This class does not include commercial agricultural land, but does include backyard non-commercial agricultural type activity including improved pastureland, field crops, groves, horse facilities, barns, and other agricultural uses. If the backlot agricultural use meets the MMU (2.5 acres), it will be mapped as a separate polygon and coded with the appropriate land use class.

#### 1200 COMMERCIAL AND SERVICES

Commercial and Services includes areas used predominantly for business or the sale of products and their associated services. Also included are some non-commercial uses such as government and public service offices.

This class does not include industrial activities.

## 1210 GENERAL OFFICE USE

Included are areas of office buildings usually used for financial, personnel, business, medical and other professional services. The unit includes associated facilities and parking areas.

### **1211 Low- to Medium-Rise Major Office Use**

This category includes office buildings of one to ten stories in height.

Office buildings are usually located on or adjacent to major streets, depending on the need for high visibility. Offices have parking areas either behind or around the buildings. Typically there are two styles of building structures. Normally, the low-rise office buildings (one to four stories in height) try to maximize window access, resulting in buildings that are long and narrow, containing a central courtyard, or have lateral wings. Medium-rise office buildings (five to ten stories in height) tend to be square, or rectangular in shape. Landscaping can vary from minimal to extensive, although modern larger office buildings do have considerable surrounding landscaped areas. Utility administrative offices are included in this category. Some corporate or business parks may be entirely made up of, or predominantly contain office space, although they may be similar to light industrial complexes (1311) or mixed commercial and industrial complexes (1500).

If an area contains commercial strip use on the first floor and offices on the upper floors (3 - 10 stories), then the area is considered Low- to Medium-Rise Major Office Use. A commercial strip of two-story structures containing offices on the upper floors is considered strip commercial (1223, 1224).

### **1212 High-Rise Major Office Use**

This category includes office buildings that are eleven to forty stories in height.

The characteristics of the smaller high-rise office buildings are similar to medium-rise office buildings as described above. The taller office buildings are typically rectangular, with no particular regard for window accessibility. Older office buildings may be located side by side with retail commercial on the first floor. Modern suburban office buildings may have their own parking areas or landscaped surroundings. Many taller office buildings will have underground parking, or parking on the first few levels.

### **1213 Skyscrapers**

This category includes office buildings greater than forty stories in height.

Skyscrapers are the tallest buildings built, normally occurring in downtown areas of larger cities, although they can also be located in business districts not associated with a downtown area. Retail commercial use usually occurs on the ground floor, with office use on the upper floors. Their relative height compared to surrounding areas is evident when the photos are viewed in stereo. Parking may be underground, on the first few levels, or in adjacent parking structures.

## 1220 RETAIL STORES AND COMMERCIAL SERVICES

Areas composed primarily of retail stores, restaurants, offices, and personal services, including associated facilities and parking areas.

### **1221 Regional Shopping Center**

This category includes large retail centers composed of one or more major department stores and a full range of smaller shops, restaurants, offices and commercial services.

Most regional centers are enclosed malls, which are typically one to three stories in height, elongate in shape, with large square protrusions formed by the large department stores, the areas between being the smaller retail stores, services, and restaurants. Usually parking areas totally surround the building, some of which may be parking structures. Businesses located within the contiguous parking area are included with the regional shopping center. In urban areas, where open space may be limited, the mall building may be located over an entire block, with parking underground, and no visible surface parking. Factory outlet centers are included in this category.

### **1222 Retail Centers (Non-Strip with Contiguous Interconnected Off-Street Parking)**

This category includes a large magnet store, with smaller retail stores, restaurants, service shops, and offices located in shopping centers with contiguous interconnected off-street parking. These centers are normally located along major highways and traffic corridors to take advantage of the increased customer exposure. Included are gasoline stations, restaurants and other stores whose parking area is contiguous with the center. Included are some grocery store, drug store, and department store shopping centers.

Retail or shopping centers contain buildings that are typically rectangular in shape with some architectural protrusions spaced at intervals when viewed on an aerial photo. The smaller stores are housed in long, narrow portions of the building, the larger stores are in the larger square portions. The building is usually situated toward the rear of the lot, with parking on the street side. There may be smaller commercial buildings within the parking area. Usually there is minimal to no landscaping.

Also included in this category are thematic commercial centers that function as a tourist attraction with specialty shops and restaurants.

### **1223 Modern Strip Development**

This category includes retail stores, restaurants, service shops, and offices aligned along major highways and traffic corridors to take advantage of the increased customer exposure. Included are gasoline stations, auto repair shops, convenience stores, liquor stores, small bank branch offices, clothing stores, restaurants, furniture stores, discount stores, novelty stores, car dealerships or auto centers, drug stores, small corner markets, auctions, and mini-malls. In addition to on-street parking, there is easy access to off-street parking areas, that can be found in the front, on the side, as well as behind the commercial establishments. This category includes most newer style business corridors built since the 1950's.

Included are modern commercial corridors, usually containing a mixture of commercial uses along major highways. Some lots contain one building toward the back of the lot with no major store, and a small parking lot on the street side. Strip Development areas are typically located on major streets to take advantage of the high visibility. Usually there is minimal to no landscaping. Mini-malls are similar to shopping centers except they contain no large or magnet store. In two- or three-story structures, if offices or apartments are located over first floor commercial in a commercial strip, then the site is considered strip commercial also. Older style strip development areas are included in class 1224.

### **1224 Older Strip Development**

This category includes strip development areas of little or no parking, such as the older business districts of small suburban cities. Any available parking is normally on the street, or in non-attended public parking areas. This category includes most older style business corridors built prior to the 1960's.

Older strip development areas contain storefronts and restaurants that directly abut the street or sidewalk, with very limited parking on the street or in back. Commercial units are positioned one immediately adjacent to another along the street. The strip development is composed mostly of specialty stores, offices, service shops, and restaurants. Adjacent parking areas that are less than the 2.5-acre minimum mapping resolution are included. In two- or three-story structures, if offices or apartments are located over first floor commercial in a commercial strip, then the site is considered strip commercial also. Adjacent non-attended public parking areas that are greater than 2.5 acres are mapped as class 1247.

## **1230 OTHER COMMERCIAL**

Commercial uses other than general office, typical retail stores, and/or personal services. Included in this category are associated facilities and parking areas.

### **1231 Commercial Storage**

This category includes public mini storage unit facilities and small commercial storage yards. This class does not include large storage warehouses (see code 1340).

Mini storage facilities are normally composed of a series of long, narrow parallel rectangular buildings, sometimes encompassed by a U-shaped or L-shaped building. Also included in this category are RV or large vehicle storage lots which, in some cases, are adjacent to mini storage unit facilities.

### **1232 Commercial Recreation**

This category includes areas of commercial recreational use, such as sports stadiums (not associated with schools), car and horse race tracks, indoor shooting ranges, amusement parks, fairgrounds, gambling facilities (card halls and Indian bingo), and movie theaters (all drive-in and some walk-in types). Zoos are not included in this class, but are mapped as class 1850.

School sports facilities are mapped with the appropriate school category (e.g. a high school track would be called "High School"). Race tracks in this category do not include isolated or rural horse exercise or training tracks (see code 2700). Drive-in theaters are pie slice-shaped areas with concentric arcs within, as seen on aerial photos. Other examples include walk-in theaters not located in a mall or retail center, bowling alleys, ice and roller skating rinks, miniature golf courses, and small amusement facilities.

Facilities such as bowling alleys and skating rinks may need to be verified and coded in the field since, on the photo, they resemble other types of land uses. Some categories, such as race tracks, some amusement parks, and fairgrounds, may already be identified on the collateral maps.

### **1233 Hotels and Motels**

This category includes all major hotels and motels. Small or inactive motels which may be less than 2.5 acres may be classified as strip commercial. Large hotels usually contain varied commercial activity on-site (e.g. restaurant, barber/beauty salons, bar, gift shops, etc.). Motels, however, tend to be limited to an office and individual units.

Hotels, motels, suites, inns, and motor lodges tend to be located along major transportation corridors, near airports, large amusement parks, convention centers, civic centers, and/or downtown areas to take advantage of the potential market of transient overnight or extended-stay travellers. Smaller facilities normally contain a series of one- or two-story buildings with parking within the complex, or surrounding the buildings. Landscaping may be minimal. Usually there is a swimming pool toward the front or middle of the lot. Restaurants and gas stations are located in the immediate area. Large hotels tend to be

greater than three stories in height. In order to maximize window access the building configurations are long and narrow in shape, or contain narrow lateral wings. Parking may be underground, in parking structures, or in open areas around the hotel complex. Older hotels and motel may be located along what once was a major transportation corridor, but the major corridor has since been moved to a freeway in another location.

#### **1234 Attended Pay Public Parking Facilities**

This category includes stand alone public parking areas and parking structures that have an attendant-cashier present, and is not associated with another use.

Collateral data is required to map attended pay public parking areas. Parking structures will appear as a multi-story structure when the photos are viewed in stereo. Other areas appear as open ground level parking areas. Heavily commercial or downtown areas typically contain pay parking facilities, especially in the larger city core areas.

### 1240 PUBLIC FACILITIES

Public Facilities include government offices and other public service facilities, major health care facilities, religious facilities, and public and private educational facilities. This class also includes associated facilities and parking areas. Collateral data aids in the identification of these facilities.

#### **1241 Government Offices**

This category includes federal, state, regional, county or municipal administrative office buildings. Also included in this category are post offices, courthouses, and school district offices.

The aerial photo signature will appear similar to Commercial General Office Use (see code 1211). In the suburban areas the offices will usually be one to two stories in height, with landscaping and parking.

#### **1242 Police and Sheriff Stations\*\***

This category includes all municipal, county sheriff, and state highway patrol police stations. Police stations in a military installation are not included.

Collateral data is required to map these facilities. Normally these facilities are below the 2.5-acre minimum mapping resolution. As a critical land use, these facilities will be mapped at a minimum as a one acre polygon so that they can be included in this data base.

#### **1243 Fire Stations\*\***

This category includes all state, county and municipal fire stations. Seasonal fire stations are also included. Fire stations in a military installation are not included.

Collateral data is required to map these facilities. Normally these facilities are below the 2.5-acre minimum mapping resolution. As a critical land use, these facilities will be mapped at a minimum as a one acre polygon so that they can be included in this data base.

#### **1244 Major Medical Health Care Facilities**

This category includes public and private general medical health care facilities (hospitals) that give short-term care.

Larger hospitals are normally multi-storied, with split-level recessed/tiered upper floors that may form long and narrow lateral wings in order to maximize availability of window access for patient rooms. The area may contain other associated buildings, parking structures, parking areas, and landscaping. Smaller hospitals are one to two stories in height, with parking areas and landscaping. In both cases there may be circular drives with covered main entrances. Some facilities contain a number of buildings forming a complex. Medical offices are often located in close proximity to medical health care facilities. Some medical school facilities may be included as part of a major medical health care facility complex.

#### **1245 Religious Facilities**

This category includes churches, mosques, synagogues, temples, tabernacles, and other places of worship or religious pursuit. Religious monasteries, convents, etc. are also included in this category. Not included are schools (see 1262 through 1264), communication (see code 1420) and mass media facilities (see code 1211 and 1212) associated with a religious denomination.

Worship facilities are normally below the 2.5-acre minimum mapping resolution. They appear as one main building with landscaping and parking areas. Some facilities have a grass play area, or other smaller buildings. Monasteries and convents may appear as large office-type or apartment-type buildings in a closed compound with parking areas and substantial landscaping. Religious facilities may be identified on the topographic base maps, but that source may not be current. Small cemeteries, less than 2.5 acres, that are associated with an adjacent church are included with the church. Religious camps are mapped as code 1880. Retreat or conference centers are mapped as code 1253.

#### **1246 Other Public Facilities**

This category includes convention centers, and other public facilities, such as libraries, community centers, auditoriums, live indoor and outdoor theater facilities, observatories and museums, which are not

covered by other categories.

Convention centers may appear as very large rectangular to square building complexes with some architectural design. There is much landscaping and surface parking, parking structures, or underground parking. Convention centers are usually located in downtown civic center areas, central business districts, or near major airports.

Many public facilities in this category resemble office buildings in appearance. Outdoor theaters appear as large amphitheater areas with concentric seating pattern. Libraries, auditoriums, observatories, museums, and community centers are usually identified on collateral sources.

#### **1247 Non-Attended Public Parking Facilities**

This category includes free or metered public parking areas where no attendant-cashier is present. Only parking facilities greater than the 2.5-acre minimum mapping resolution are included. Facilities smaller than minimum mapping resolution are mapped with the adjacent use.

Most non-attended public parking facilities occur in older strip development areas (code 1224). Most of these parking facilities are located in the central business districts of suburban cities or community centers. The parking facility is usually located behind or across the street from the old commercial strip.

### 1250 SPECIAL USE FACILITIES

Special Use Facilities include institutional type facilities such as correctional institutions, mental health institutions, convalescent health care facilities, non-profit institutions, and fraternal organizations.

#### **1251 Correctional Facilities**

This category includes large facilities providing institutional services, such as juvenile halls, youth correctional facilities, county jailhouses, federal and state prisons, and state correctional mental hospitals (also see code 1252).

These institutions may be several acres in size, with many "office-type" or "apartment-type" buildings, landscaping, and parking areas, all confined to a closed complex. Other uses, such as agriculture, occurring within the correctional facility grounds are mapped separately.

#### **1252 Special Care Facilities**

This category includes public and private institutional care, such as convalescent and rehabilitation facilities, nursing homes, mental health facilities, sanitariums and state non-correctional mental hospitals.

Also included are reform schools, orphanages, and homes for abused, neglected, or other special needs children. This class does not include senior citizen apartments (see codes 1121, 1122, 1123, 1124, and 1125).

Larger facilities are normally multi-storied, with split level recess-tiered upper floors that may form long and narrow lateral wings in order to maximize availability of window access for patient or resident rooms.

The area may contain other associated buildings, parking structures, parking areas, and landscaping.

Smaller facilities are one to two stories in height, with parking areas and landscaping. In both cases there may be circular drives with covered main entrances. Residential and mental health facilities may contain "office-type" or "apartment-type" buildings, landscaping, and parking areas in a closed complex.

### **1253 Other Special Use Facilities**

This category includes fraternal and other non-profit organizations, such as Salvation Army, Goodwill Industries, YMCA, youth organizations, homeless shelters, etc. Also included are retreat or conference centers.

This category includes a wide range of photo signatures. Many of the facilities in this category are similar to office buildings in appearance. Some may occur in retail commercial areas. Some fraternal organizations, however, may take on the appearance of churches or other religious facilities. YMCA and YWCA facilities may contain recreational facilities such as swimming pools, gymnasiums, baseball fields, etc. Some facilities may appear in industrial areas, such as Goodwill Industries.

## 1260 EDUCATIONAL INSTITUTIONS

All levels of public and private schools, colleges, universities, seminaries, and training centers are covered by this category. Includes buildings, open space, dormitories, and parking areas. Also included are all athletic facilities, such as ball fields, stadiums, soccer fields, swimming pools, and tennis courts.

### **1261 Pre-Schools/Day Care Centers**

This category includes public and private pre-schools, nursery schools, and day care centers. Facilities associated with other educational institutions or religious facilities are not included in this category.

Most pre-schools/day care centers are below the 2.5-acre minimum mapping resolution. Typically, pre-schools and day care centers are located in commercial areas within close proximity to residential neighborhoods. The facility can appear similar to any commercial type use, however, it will usually contain playground equipment within a fenced lot.

## **1262 Elementary Schools\*\***

This category includes public and private schools, kindergarten through sixth grade, kindergarten through eighth grade, or other beginning grade levels, depending on local school board or administration policy.

Normally buildings are one or two stories in height, though some higher storied buildings may be present.

The area contains landscaping and walkways. Buildings are either long and rectangular or have long narrow wings to maximize availability of window access. The play area can be a gray photo signature of asphalt, or a green signature of grass, or both. Elementary schools are usually much smaller than the other types of schools, normally less than 10 acres in size. The parking lot is very small, and may contain a bus loading curb or area. Because this class is a critical land use, any schools that are below the 2.5-acre minimum mapping resolution will be mapped at their actual size, or at a one-acre minimum. If a school serves a narrower or wider range of grade levels, then the school is assigned the class that the facility typically resembles.

## **1263 Junior High Schools\*\***

This category includes public and private schools for grades seven through eight, seven through nine, or other intermediate grade levels, depending on local school board or administration policy. Intermediate and Middle Schools may be included in this category.

Normally buildings are one or two stories in height, though some higher storied buildings may be present.

The area contains landscaping and walkways. The buildings are either long and rectangular or have long narrow wings to maximize availability of window access. The athletic area may have a gray photo signature representing asphalt and a larger area of grass which is used as the soccer field/baseball diamond/track. Some schools will have a swimming pool or tennis courts. A parking lot with bus loading curb area may be visible. Junior high schools appear similar to high schools, but have smaller parking and athletic facilities. A junior high school lot is normally about 10 to 20 acres in size. Because this class is a critical land use, any schools that are below the 2.5-acre minimum mapping resolution will be mapped at their actual size or at a one acre minimum. If a school serves a narrower or wider range of grade levels, then the school is assigned the class that the facility typically resembles.

## **1264 Senior High Schools\*\***

This category includes public or private schools for grades ten through twelve, nine through twelve, or other upper grade levels, which are authorized to grant a high school diploma. Both regular, alternative, and extended day or adult education campuses are included. Seminary high schools are also included.

Normally buildings are one or two stories in height, though three- or four-story buildings may be present.

The area contains landscaping, walkways, and glades. Buildings are either long and rectangular or have long narrow wings to maximize availability of window access. The athletic area may be a gray signature of asphalt, with a larger area of grass for a soccer field. There are also separate baseball diamond/fields, football fields/stadiums, and track ovals.

Some schools will have a swimming pool and tennis courts. A parking lot with bus loading curb area may be visible. One may find a series of buses parked there. A senior high school lot is normally about 20 to 50 acres in size. However some private high schools may be below the 2.5-acre minimum mapping resolution and will be mapped as a one acre polygon at minimum in order to be included in the data base. If the school serves a narrower or wider range of grade levels, then the school is assigned the class that the facility typically resembles.

### **1265 Colleges and Universities**

This category includes all public or private schools that offer courses at grade level 13 or higher, conferring either professional or academic degrees. Post-high school seminaries are also included.

Normally buildings are one to four stories in height, though higher storied buildings may be present. Buildings are either long and rectangular or have long narrow lateral wings to maximize availability of window access. Some buildings, such as libraries, auditoriums, and gymnasiums, may be rectangular in shape. Many buildings have architectural design in their shapes and features. Areas within the school may be well landscaped, containing walkways, glades, quads, squares, large lawn areas, greens, or malls. Athletic areas may be separate from the main school area. Asphalt areas for basketball may be present. There are also separate baseball fields, football stadiums, track ovals, tennis courts, and swimming pools. Small streets and parking areas may be located throughout the complex. Dormitories and on-campus fraternity/sorority houses are included. Off-campus university-owned housing and off-campus fraternity/sorority houses may be mapped as a multi-family or single-family residential category.

### **1266 Trade Schools**

This category includes all schools which provide technical, vocational, occupational, or professional training (e.g. vocational schools, occupational training centers, police academies, secretarial schools, nursing academies, technical institutes, or art institutes).

These facilities are normally smaller than and may identify themselves as, a college or university. Most facilities will be smaller than a high school and without the athletic facilities normally associated with other schools. Buildings may be any size, but normally one to two stories in height, resembling office buildings. Some buildings may be long and narrow to maximize availability of window access. The

facility will have an adjacent parking area.

## 1270 MILITARY INSTALLATION

Areas of military installations and associated facilities administered by the United States Armed Forces or the California National Guard. Water bodies within a military installation are coded as 4400.

### **1271 Base (Built-Up Area)**

This category includes all developed lands (except agriculture (1272), airfields (1273), and water (4400)) within a military installation. Includes bases, camps, armories, ordnance depots, and missile sites.

Built up area may contain office buildings, residential units, industrial areas, equipment storage facilities, administrative buildings, other support facilities, parking areas, landscaping, glades, walkways, and athletic facilities. Small areas of vacant land within this category are considered part of the built-up area. Some government contracted research or industrial facilities may be located within a military reserve. Collateral data is necessary to delineate the boundaries of the military reservations.

### **1272 Vacant Area**

This category includes all large areas of undeveloped lands within a military installation.

Includes large areas of vacant land within the military installation boundary. Small areas of vacant land within the built-up base area are considered part of the base (1271). Also included in this category are agricultural areas within the military reservation. Collateral data is necessary to delineate the boundaries of the military reservations.

### **1273 Air Field**

This category includes air fields and associated facilities within a military installation.

Includes the landing strip, tarmac, taxiways, aircraft storage areas, hangars, and repair areas. Vacant areas within the airfield complex are included. On the aerial photos the hangars appear as large square buildings, two to three stories in height with aircraft parked nearby, with direct access to the air strip and taxiways.

### **1274 Former Military Base (Built-Up Area)**

This category includes all developed lands (except agriculture (1272), airfields (1273), and water (4400)) within a former military installation. Includes bases, camps, armories, ordnance depots, and missile sites.

Built up area may contain office buildings, residential units, industrial areas, equipment storage facilities,

administrative buildings, other support facilities, parking areas, landscaping, glades, walkways, and athletic facilities. Small areas of vacant land within this category are considered part of the built-up area. Some government contracted research or industrial facilities may be located within a military reserve. Collateral data is necessary to delineate the boundaries of the military reservations.

**1275 Former Military Vacant Area**

This category includes all large areas of undeveloped lands within a former military installation.

Includes large areas of vacant land within the military installation boundary. Small areas of vacant land within the built-up base area are considered part of the base (1271). Also included in this category are agricultural areas within the military reservation. Collateral data is necessary to delineate the boundaries of the military reservations.

**1276 Former Military Air Field**

This category includes airfields and associated facilities within a former military installation.

Includes the landing strip, tarmac, taxiways, aircraft storage areas, hangars, and repair areas. Vacant areas within the airfield complex are included. On the aerial photos the hangars appear as large square buildings, two to three stories in height with aircraft parked nearby, with direct access to the air strip and taxiways.

**1300 INDUSTRIAL**

Areas where manufacturing, assembly, processing, packaging, or storage of products takes place.

**1310 LIGHT INDUSTRIAL**

Design, assembly, finishing, packaging, and storage of products or materials which have been processed at least once. These activities are characterized as "clean", since they produce a relatively small amount of smoke or other effluents, noise, and dust. Includes associated facilities and parking.

**1311 Manufacturing, Assembly, and Industrial Services**

This category includes all types of light industrial activity except those associated with the motion picture industry. Associated areas used for open storage of heavy equipment are mapped as 1323.

Most light industrial manufacturing and assembly buildings appear as large square or rectangular structures, all located in an contiguous area usually zoned for such operations. Some buildings may be long and narrow; most buildings are one story and may have very high ceilings. On the aerial photo one

can note a series of evenly spaced air conditioning units or air turbines on the roof. Many newer industrial buildings will have a white roof photo signature. The buildings are usually located in the middle of the lot, though that is not an essential requirement. There will be parking areas surrounding the building for employee parking. There is also minimal to no landscaping. Some light industrial manufacturing establishments occur together in a business, corporate, or industrial park. Others may occur in an industrial or commercial park mixed with commercial uses or offices (see code 1500). Included in this category are wholesale lumber yards and lumber milling and cutting operations. Lumber operations are distinguishable on the photo by the many large stacks of wood, pallets, and trusses. Also included are breweries, wineries, and food processing facilities. Small extractive sand and gravel operations as part of a small brick making operation are included in this category unless the extractive (code 1331) area is large enough to map as a unit by itself. Metal reprocessing facilities and recycling centers are also included. Industrial facilities located within a military reserve are mapped as military (code 1271).

### **1312 Motion Picture and Television Studio Lots**

This category includes motion picture company and television production studios as well lots or open areas used for outdoor sets. Also included are permanent remote lots used for production.

Various types of structures may appear on the lot. Offices would appear as long narrow buildings, possibly with wings. Sound stages may appear as very larger square or rectangular buildings. The buildings may appear in a series or in rows. The back lot areas may appear as non-descript open areas with various smaller structures and vegetation.

### **1313 Packing Houses and Grain Elevators**

This category includes facilities used for the packing and storage of produce for shipment to markets or processing plants.

Packing houses and grain elevators are usually located adjacent to railway lines. They can occur in urban industrial areas, although they are normally located in rural agricultural areas. Packing houses are large, rectangular warehouse type buildings. Grain elevators consist of one to several adjacent, tall, cylindrical metallic structures. The elevators may be adjacent to associated buildings.

### **1314 Research and Development**

This category includes industrial complexes where product, technology, or idea development and research is the primary function.

Normally research and development is part of a commercial or industrial business and is housed within structures of that primary use. However, some research and development takes place in separate areas or structures apart from or adjacent to its associated parent facility. Research and development facilities contain office buildings and laboratories. Some light industrial-type structures may also be present. Off-campus university field laboratories are included. Academic institutions, however, are not included in this class. Research and development facilities located within a military reserve are mapped as military (code 1271).

## 1320 HEAVY INDUSTRIAL

Industrial and manufacturing facilities of a large magnitude involving the processing of raw materials. It is considered relatively "dirty" since wastes such as smoke, slag, dust, and liquid effluent, as well as noise, are often generated. Includes associated facilities and parking areas.

### **1321 Manufacturing**

This category includes large operations of manufacturing activities such as large brick, cement, and asphalt production facilities. This category does not include Petroleum Refining and Processing (see code 1322), Open Storage (see code 1323), Major Metal Processing (see code 1323), and Chemical Processing (see code 1325).

These facilities may appear as several large buildings or as a complex on a large lot, with parking. The layout of the complex buildings may not be orderly. The facility may have access to several spurs of a railroad system taking advantage of the transportation network. Raw materials may be stored in the open or in large silos. The area appears to be very "dirty" from the fallout of raw materials or industrial waste products.

Manufacturing plants are usually located in an area of other similar operations or with light industrial areas.

### **1322 Petroleum Refining and Processing**

This category includes major oil refineries, as well as associated petrochemical plants.

Petroleum operation photo signatures have a "dirty" gray to black appearance over the entire facility. Large pipes, vats and storage tanks are compactly situated over the entire area. Typically there are acres of storage tanks situated in a matrix formation. Petroleum refining facilities are located adjacent to major harbor facilities, or may be located on the coast where tankers may unload their crude oil from offshore intake pipes. This category does not include oil well or exploration areas (see code

1332).

### **1323 Open Storage**

This category includes wrecking yards, junk yards, storage of heavy equipment not related to maintenance, and other salvage and recycling operations. Also included are outdoor areas used for storage of light or heavy industrial products. This class does not include open storage of new cargo at harbor facilities (see code 1411).

The photo signature for wrecking and junk-yards appears as a lot containing many cars in high concentration lined up in columns or rows with dirt access "lanes" in between. Other junk-yards may appear as non-descript areas of large metallic material lying in an area in no particular order or arrangement. Open storage of light or heavy industrial products appear as large yards in an industrial area with a relatively neat organization of heavy equipment. Also included are non-commercial lots containing what appears to be abandoned equipment, usually stored in a disorderly fashion. Cargo storage areas located in railroad yards are coded as Railroad (code 1412).

### **1324 Major Metal Processing**

This category includes all foundries, smelters, stamp mills, and other heavy metal manufacturing or processing plants, with the exception of recycling centers or wrecking yards.

The photo signature appears as an area, many acres in size, containing many square to rectangular or long narrow buildings, with air turbines or air conditioning units on the roofs. Situated within the area are numerous smoke stacks and pipes. The area is also tinged with a "dirty" gray color. Also included are associated "slag heaps".

### **1325 Chemical Processing**

This category includes major chemical refining plants and their associated facilities.

Chemical processing plants may appear as office type buildings used for administrative purposes, with larger industrial type buildings, large pipes, and tanks for movement and storage of necessary liquids or gases.

## 1330 EXTRACTION

Areas whose use is devoted to the extraction of mineral and rock products. Includes associated mining area, facility structures, and parking areas.

### **1331 Mineral Extraction - Other Than Oil and Gas**

This category includes surficial extraction of minerals and rock products, including sand, gravel, clay, diatomaceous earth, metals and other non-metals. Includes quarries, open pit mines, and borrow pits. Also included are surficial structures related to below ground mine activities. This class does not include oil and gas extraction (see code 1332).

Most quarries will appear as a giant hole dug in the earth, with steep-sided edges. On the top surface and down in the pit there will be little or no vegetation due to the disturbance of the ground by earth movers. Ponds of water may be located in the pit or on the upper ground surface. Tailing piles may be located nearby, adjacent to, or on the mining site. Sand and gravel operations are usually located in or near river floodplains. Sand and gravel pits may have the extracted material piled in the pit or adjacent to the pit on the upper ground surface, with storage bins and long linear conveyor belts crossing the piles. Borrow pits may appear only as small one- to 3-acre areas of graded land with little or no vegetation located near a highway or built up area. The borrow pit was extracted for fill dirt. Some short escarpments may be found at the edges of the borrow pit. Most underground mining operations have limited surface exposure. Some shaft or mining operation out-buildings may be located in a mappable cluster, with some adjacent tailings.

### **1332 Mineral Extraction - Oil and Gas**

This category includes oil and gas extraction and associated surface storage facilities. Subsurface known or suspected reserves are not included. Offshore oil and gas extraction is not included.

Oil and gas extraction fields can be distinguished by the presence of a series of tall oil derrick towers or oil pumps. The derricks appear as a group of concentrated long shadows on the aerial photo. Some areas have only the oil pumps, without derricks, scattered within a field area. Some oil field pumps may be located in a built-up area. By itself, a pump is below mapping resolution, but when situated in a group, the area may be mappable. An oil field area appears on the aerial photo as an extensive network of roads and small clearings usually located on a hill or mountain slope. Most fields are identified on the basemap. Built-up uses take precedence over the mapping of pumps.

## 1340 WHOLESALING AND WAREHOUSING

### **1340 Wholesaling and Warehousing**

This category includes storage, supply, or distribution warehousing or wholesale shipping centers other than those which are integral parts of airports, transportation centers, and harbor facilities.

The warehouse structures appear similar to light industrial manufacturing buildings in that most are large squares or rectangular in size and shape, with few or no air turbines or air conditioning units on the roof. The building is typically located near the middle of the lot, with very little employee parking. On the aerial photo one may be able to see long narrow truck trailers lining the edges at the loading docks. Other truck trailers may be parked within the lot. Usually there is little or no landscaping, and very little parking. Only large high volume operations may have larger employee parking areas. This category does not include Truck Terminals (1416). Open storage of heavy equipment is coded 1323.

## 1400 TRANSPORTATION, COMMUNICATION, AND UTILITIES

Major structures and facilities associated with forms of transportation, communication, and utilities.

### 1410 TRANSPORTATION

Areas devoted to major transportation, such as airports, freeways, roads, railways, and harbors facilities.

#### **1411 Airports**

This category includes all airports, air fields, and air strips, heliports, and their associated parking and storage facilities.

The airport area includes repair and storage hangars, aircraft parking areas, taxiways, and the vacant areas at the ends of and between runways. On the aerial photo the hangars will appear as large rectangular or square structures adjacent to the runway/taxiway and aircraft parking area. In major airports, passenger terminals and automobile parking areas are also included, as well as air freight facilities. Also included in this class are heliports and land associated with seaplane bases. Also included are car rental establishments located within the airport complex. Off-site car rental locations are mapped as modern strip development (code 1223). Vacant and agricultural areas within the airport boundary are coded 3100 and 2110 or 2120 respectively.

#### **1412 Railroads**

This category includes train terminals, stations, associated parking areas, roundhouses, repair and switching yards, and railbed rights-of-way, including spurs and sidings. Also included are cargo storage and transfer areas located within the railroad yards. The width of the rights-of-way must be at least half the width of a 2.5-acre square to be included.

Railroad beds appear on the aerial photo as a continuous dark, narrow line with an adjacent band of off-white on each side. The railroad beds appear very similar to minor roadway beds, except they are

narrower and are continuous for miles. Terminals and switching yards appear as an abrupt multi-branching of the line, becoming polygonal areas, rather than linear. One may be able to see the railroad cars on the photo. Spurs and sidings may be below resolution. They appear as two or three tracks branching off side by side next to the main track or as a branch of the track veering off in another direction. Railroad rights-of-way are normally below minimum mapping resolution, so only those areas meeting the minimum resolution are mapped. Major railroad stations will appear as a large facility with parking and a large building adjacent to the railroad tracks. The tracks may be under a large covering, or have covered platforms adjacent to each track.

### **1413 Freeways and Major Roads**

This category includes freeways, interchanges, major roadways, and their adjacent rights-of-way. The delineations include the roadbed, landscaped areas, access routes, and associated adjacent drainage ways. Also included are rest areas, weigh stations, and toll booths.

All freeways are to be mapped, as well as major roadways that are at least half the width of a 2.5-acre square. Freeways appear as two to six lane roadways with adjacent landscaping and center divider, with interchanges, overpasses, and underpasses. The freeway lane signature is gray to white. Rest areas appear as landscaped areas with small structures (bathrooms and picnic overhangs) and parking areas. On the photo one may be able to see cars and large trucks parked. Normally there is a rest area located on each side of a freeway at the same location. There is an off-ramp and an on-ramp from the freeway to each rest area. Toll booth plazas appear as a sudden widening of the roadway into many lanes that run into a long, narrow covered area dissecting the roadway. On the other side of the booths, the lanes converge again to form the freeway lanes. Road cuts are mapped as vacant land (3100), not as part of the 1413.

### **1414 Park and Ride Lots**

This category includes Cal Trans park and ride lots provided for commuter ridesharing, buspooling, vanpooling, and carpooling purposes.

Park and ride facilities appear similar to parking lots and are located near major freeways or highways. Some park and ride lots are located in retail center parking lots. Collateral data is necessary to map these facilities.

### **1415 Bus Terminals and Yards**

This category includes areas used as bus terminal facilities, including bus storage and maintenance.

Major bus terminals and storage/maintenance yards appear as large parking areas for buses. On the aerial photo one may be able to see a number of buses parked side by side or one behind the other. School bus yards are also included. School buses will appear as yellow in color, with a white roof and, in some cases, large black numbers painted on top.

#### **1416 Truck Terminals**

This category includes areas used as truck or highway freight terminals, freight transfer, or large truck stops where there is a high level of truck activity.

Truck terminals and freight transfer structures will appear as small rectangular buildings with the large truck trailers parked all around at the loading docks. Additional trailers may be parked on the lot. There is not very much employee parking. Warehousing is not included in this category (1340). Large truck stops are located adjacent to freeways and contain services such as gas stations, restaurants, motels, and truck repair. On the aerial photo one can see a large truck trailer parking area, with trucks. Small truck stops are mapped as part of modern strip development (code 1223).

#### **1417 Harbor Facilities**

This category includes port and dock facilities and associated storage areas. Includes shipyards, dry-docks, locks, waterway control structures, buildings and associated parking areas. Marinas are included in Other Open Space and Recreation (see codes 1880 and 4300). Harbor-use in the adjacent water body are included in Water (code 4200).

Major harbor facilities are located at the ocean, within close proximity to or within a large metropolitan area. Numerous wide channels and "sea lanes" are available for ships to pass in, out and through the facility. There are numerous slips and berths for loading and unloading of cargo, as well as large areas for container or cargo storage. Other facilities include ship repair and ship building areas. There may also be tanks for storage of petroleum products not associated with a refinery. Other adjacent facilities, such as heavy or light industrial are mapped into their respective categories. All water associated with the harbor facilities is included in class 4200, Harbor Water Facilities.

#### **1418 Navigation Aids**

This category includes areas occupied by facilities necessary to aid navigation, such as lighthouses.

Lighthouses will appear on the coast at prominent points where sea navigation may be hazardous. There is usually an area set aside for the light itself, keepers quarters, other navigation and

communication antennas, as well as some landscaping. When viewed in stereo one may be able to discern the lighthouse tower. Other navigation aids such as beacons, horns, and communication antennae, and VORTACs may be below minimum mapping resolution.

## 1420 COMMUNICATION FACILITIES

### **1420 Communication Facilities**

This category includes areas used for airwave communications, including radio, radar, television, telephone, and microwave facilities.

Most communication facilities are below minimum mapping resolution, unless many antennae towers and structures are located together. These facilities are normally made up of one or more antennae or towers, sometimes including one to a few small square or rectangular buildings. Radio towers occur as a set of 3 tall towers on a lot, whereas TV towers occur as one large, tall tower. Microwave towers are usually individual, shorter towers. Telephone central offices are normally enclosed in a one- or two-story, square or rectangular building in a built-up area.

## 1430 UTILITY FACILITIES

Areas which are used for the production and transmission of electricity, and the treatment or transportation of water, sewage, and fuels.

### **1431 Electrical Power Facilities**

This category includes facilities engaged directly in the generation and distribution of electricity. Included are power generating stations (thermal, nuclear, hydroelectric, coal, steam, wind energy farms), substations, and transmission line rights-of-way. Transmission line rights-of-way are mapped if the width of the corridor is at least half the width of a 2.5-acre square. This class does not include administrative offices.

Electrical power plants appear similar to heavy industrial operations. The facility contains smoke or steam stacks with vents, piping, tanks, towers, and racks containing transformers and other electrical equipment. Several transmission line corridors converge at power plant sites. Substations appear as metal racks containing the transformers and other electrical equipment. They may be as small as 1/4 acre to as large as several acres. The racks are normally located near the center of the lot, with the ground surfaced in gravel. One to several transmission line corridors converge at the substation. The transmission line corridor appears as a linear swath of land traversing the landscape. The corridor may be located along the side of a street and be very narrow or located in vacant areas and be as wide

as 1/4 mile if the corridor contains several transmission line towers. On the aerial photo one may be able to see the individual tower areas as a white dot immediately surrounded by a small graded area. Leaning away from each dot one may be able to see the black shadow of the tower or power pole. One can follow these dots from tower to tower along the corridor, from substation to substation or power plant. Some corridors contain other uses such as nurseries, orchards, cropland, or pastures within the right-of-way. The other uses underlying a transmission line take precedence. If the underlying use is vacant, the electric transmission line corridor takes precedence. Only corridors that are above the minimum mapping resolution are mapped.

#### **1432 Solid Waste Disposal Facilities**

This category is used for active dumps and sanitary landfill operations, and their associated facilities.

Most landfills in southern California are located in old excavated gravel pits or in canyons. They will appear as large extents of graded area, or if located on a plain, will appear as an extensive graded mound. The pit or canyon may appear to be partially or significantly filled, with tractors or other heavy excavating equipment on its surface. These facilities are normally located away from areas of human habitation or areas of high human concentration or activity. Other uses overlying a closed, abandoned, or inactive landfill take precedence.

#### **1433 Liquid Waste Disposal Facilities**

This category includes sewage treatment and liquid waste treatment plants and associated spreading grounds, aeration fields, and water injection plants. Also included are associated facilities and parking areas.

The aerial photo signature will normally show about four circular tanks, each with a linear pipe forming a radius within the tank. Surrounding the tanks may be some small ponds, site office, and parking facilities.

#### **1434 Water Storage Facilities**

This category includes most small water reservoirs and water tanks used for domestic water supply. Included are any associated facilities and dams.

The reservoirs include all covered water storage facilities and water tanks. Open water bodies used for water storage are included if they are below 5 acres in area, otherwise they are mapped as Water (see code 4100). Water tanks appear on the photo as a small round light colored structure. Covered reservoirs may be circular, oval, or rectangular in shape. Dams associated with water storage

reservoirs are included. Dams associated with flood control are mapped as code 1437.

#### **1435 Natural Gas and Petroleum Facilities**

This category includes major natural gas and petroleum distribution systems. Included are pumping facilities, and storage facilities not associated with a refinery. Not included are underground storage facilities.

Pipeline rights-of-way at least half the width of a 2.5-acre square are mapped. Most of the facilities require collateral data in order to be mapped. Large tank farms not associated with a refinery are included.

#### **1436 Water Transfer Facilities**

This category includes major above-ground water distribution channels, aqueducts, water treatment, filtration (non-sewage), reclamation (non-sewage), and pumping facilities.

Examples of water transfer are the California Aqueduct and Coachella Canal which appear on the aerial photo as a linear open water, concrete lined canal; and the Los Angeles Aqueduct which appears as a linear, large, above-ground pipeline. Most of the facilities can be identified on the collateral data. This category does not include improved flood channels and structures (see code 1437).

#### **1437 Improved Flood Waterways and Structures**

This category includes flood control channels and dams, detention ponds, percolation basins, and debris dams.

Most improved flood control channels are channelized and/or lined with concrete. The photo signature shows a white to off-white color representing the concrete lining. Percolation basins are a series of basins adjacent to a flood control channel where flood water is allowed to recharge the groundwater. Debris dams are normally earthen, but may contain a concrete spillway. They are located at the mouth of canyons or downstream of the canyon, and contain a vegetated, though dry to intermittent back pond. Dams associated with water storage are mapped as code 1434. The improved flood waterways and structures are usually identified on the collateral data.

#### **1438 Mixed Wind Energy Generation and Percolation Basin**

This category is used where electrical power facilities such as wind energy generation farms and improved flood structures, such as percolation basins occur together in a double use fashion. The

wind energy towers are located on the levees between the basins.

#### 1440 MAINTENANCE YARDS

##### **1440 Maintenance Yards**

This category includes maintenance facilities owned and operated by a major utility or government agency. Included are repair and storage yards.

Maintenance yards normally contain an L-shaped or long, narrow rectangular, single story building.

The lot contains a number of parked company vehicles and heavy equipment or machinery. Also stored on the lot is other maintenance or replacement equipment. Construction materials may also be stored on the lot. Collateral data and field verification are required for mapping.

#### 1450 MIXED TRANSPORTATION

##### **1450 Mixed Transportation**

This category includes areas where more than one transportation use is present and neither dominates.

This class may be used when a highway occurs adjacent to a railroad and together the width of the right-of-way is above the 2.5-acre minimum mapping resolution. Each individual right-of-way may be below resolution. Where a 1450 is crossed by a freeway (1413), the freeway takes precedence in the overlap area.

#### 1460 MIXED TRANSPORTATION AND UTILITY

##### **1460 Mixed Transportation and Utility**

This category includes areas where a transportation and utility right-of-way occur together or side by side and neither use dominates.

This class may be used when a highway or railroad occurs adjacent to a transmission line corridor or an improved flood control channel. Together the combined right-of-way is above the 2.5-acre minimum mapping resolution. Each individual right-of-way may be below resolution.

#### 1500 MIXED COMMERCIAL AND INDUSTRIAL

##### **1500 Mixed Commercial and Industrial**

This category includes both commercial and industrial land uses occurring together, or in close

proximity. Each individual land use unit is below the 2.5-acre minimum mapping resolution and neither use dominates.

Typically this class occurs at some "industrial", "commercial" or "business" parks that contain a mixture of light industrial use, offices, warehouse/distribution use, retailing, and personal services. These complexes usually contain one or more buildings rectangular in shape, with minimal landscaping. Each building is similar to a typical light industrial building. Buildings composed predominantly of retail businesses are coded 1223, and those composed predominantly of light industrial are coded 1311. This class is also used in areas not located in a complex, but the industrial and commercial classes do follow the definition above. Also included are areas where a combination of commercial and industrial use occur within the same building.

#### 1600 MIXED URBAN

##### **1600 Mixed Urban**

This category includes built-up areas where there is a mixture of uses occurring within a specific area, and no one class dominates.

In these areas no one class can be mapped above the 2.5-acre minimum mapping resolution. This class typically occurs in smaller towns or villages where there are various uses in a small area. It may also occur in older areas where consistent zoning was not in force at the time of construction of structures. Also included are areas where a mixture of uses occur within the same building. For example, an older commercial strip may contain adjacent buildings where commercial use occurs on the first floor and, in all buildings, either residential or offices occur in the upper floors.

#### 1700 UNDER CONSTRUCTION

##### **1700 Under Construction**

This category includes facilities that were under construction at the time aerial photography was taken, or at the time of field verification. Structure use and/or extent cannot be or is difficult to determine.

The aerial photo signature shows a newly graded area with no vegetation. Pad platforms or foundations may be visible. Partly constructed structures may also be visible. If the use and its extent can be determined, then the polygon is categorized with its known use.

## 1800 OPEN SPACE AND RECREATION

Developed open areas within urban settings, and urban and non-urban open areas developed for recreational activities.

### **1810 Golf Courses**

This category includes public and private courses including driving ranges, greens, fairways, links, hazards, buildings, and parking areas.

Golf courses appear on the photo as areas containing long green grass areas lined with trees. The greens have hazard ponds and white sand traps adjacent to them. There can be nine or eighteen fairways/greens. Typically there is a main building serving as the clubhouse/office/restaurant. Driving ranges not associated with a golf course are mapped as Other Open Space and Recreation (code 1880). Most golf courses are identified on the collateral data. Residential areas within golf courses are mapped separately as their residential type. Water bodies that are greater than 2.5 acres are mapped as 4100.

### **1820 Local Parks and Recreation**

This category includes neighborhood, city, town, or community parks, and sports fields, and their associated parking facilities. Beach parks are not included (see code 1870).

Local parks are typically small, up to several city blocks in size, but basically serve the immediately surrounding community. The photo signature shows a green grass area with trees scattered throughout, though trees are not a requirement of this class. The park may contain limited sports facilities. Parking is usually on the street, though there may be one or more parking lots. The sports fields are usually softball fields, basketball courts, tennis courts, or soccer fields, though some parks also contain swimming pools. Some parks also contain a recreational building or multi-purpose building, with offices and indoor sports facilities. Private parks serving a development or subdivision are included. Most parks are identified from collateral sources. In some cities, school athletic field/playground areas are also considered parks, therefore these areas were mapped as parks.

### **1830 Regional Parks and Recreation**

This category includes developed land within parks designed to serve a regional area. All facilities within the park, such as campgrounds, marinas, or boat launching facilities, are included in this class.

Regional parks are typically large, and may include undeveloped areas. The undeveloped portions of parks are mapped as vacant (see code 3100). The photo signature shows green grass areas, as well as

tree-covered areas. The park may have one or more roads winding through it, depending on the size of the park. The park usually contains a number of sports facilities, such as basketball courts, tennis courts, softball fields, soccer fields, and swimming facilities. Water bodies within regional parks that are above mapping resolution are coded 4100. Beach parks are not included (see code 1870). Where multiple uses occur within a regional park, for example golf course, agriculture, flood control, etc., the use other than Regional Park takes precedence. Most regional parks are identified on collateral sources.

#### **1840 Cemeteries**

This category includes public and private cemeteries, memorial parks, mausoleums, and other burial grounds. Included are associated facilities and parking areas.

Cemeteries appear on the photo as green grass areas, similar to local parks. Cemeteries, however, contain roads configured as a grid network or with a center oval. The interpreter may be able to see subtle lineation representing the tombstones, plaques, and flowers at each grave. One or more buildings are found on the lot which may include a mortuary, chapel, office, or crematory. A line of cars may be seen on the photo if a funeral was in progress at the time of exposure.

#### **1850 Wildlife Preserves and Sanctuaries**

This category includes public and private facilities, and developed areas devoted to the preservation of wildlife species and habitats. This class includes such uses as zoos, wild animal parks, duck ponds, exotic animal farms, etc.

Zoos appear as large areas with many buildings and much vegetation in a confined area, with numerous walkways. A large parking lot is adjacent to the facility. Other wild animal facilities are typically located outside the urban area in canyons and are not open to the general public. Most wild-life preserves and sanctuaries will be identified on collateral data. Undeveloped areas within national and state preserves and sanctuaries are mapped as 3100.

#### **1860 Specimen Gardens and Arboreta**

This category includes botanical gardens or arboreta devoted to preserving living specimens of vegetation for scientific or cultural purposes.

These facilities are identified on collateral data. The photo signature will show a well manicured, highly vegetated area, with numerous walkways, buildings, and greenhouses, with an adjacent parking area. Arboreta associated with colleges or universities are mapped as 1860.

### **1870 Beach Parks**

This category includes all public and private beach parks. The facilities include bathhouses, barbecue pits, parking areas, sports areas, as well as the beach area.

Beach parks are identified on the collateral data. The aerial photo signature shows a white to tan color for the sand area, and a gray signature for parking areas. Some buildings may be located adjacent to the parking lots.

### **1880 Other Open Space and Recreation**

This category includes developed portions of public and private recreational facilities that are not described in the other open space and recreational categories above. Included are camps, campgrounds (unless within a regional park (1830)), outdoor shooting ranges, ski areas, marinas, and driving ranges not associated with a golf course. Also included are maintained grass areas not used or designated as a local park.

Most of these facilities are identified on the collateral data. Marinas are located adjacent to harbors, and contain small piers, with numerous boats. The water portion of a marina, where the boats are moored, is mapped in the Water category (see code 4300). Ski areas are typically located in mountains above 5000 feet. The area contains a series of wide linear clearings that may braid with each other. A series of towers representing the chairlift system can be seen on the aerial photo. Campgrounds appear as an area with narrow roads circling within, with offshoot segments representing each campsite area. Campgrounds are also identified on collateral sources.

## 1900 URBAN VACANT

### **1900 Urban Vacant**

This category includes open undeveloped land within urban areas that are not associated with a particular facility.

Typically these areas are vacant lots. They normally contain no structures but may have such improvements as curbs and sidewalks. The land may be in a graded condition showing little or no vegetation, or may be in a successional vegetated state, with numerous shrubs and grasses, in a non-uniform, unkept condition. Not included in this class are terraced erosion control embankments (see 3100).

## 2000 AGRICULTURE

Agriculture includes land used primarily for the production of food, fiber, and livestock. Included in these classes are associated structures and facilities.

### 2100 CROPLAND AND IMPROVED PASTURE LAND

Included here are active field and row cropland areas and improved pasture lands. The croplands include cultivated, in crop, harvested, fallow or temporarily idle land. The improved pasture land may be in pasture year-around or be in the cropland seasonal rotation. Improved pasture land does not include rangeland (see code 3100).

#### **2110 Irrigated Cropland and Improved Pasture Land**

This category includes all irrigated field and row cropland areas, and irrigated improved pasture land.

The majority of row crops in southern California is irrigated. The photo signature for active cropland will show one of several signatures. If the land is in field crop, the signature will show a uniform, smooth texture area, with a green color. Land that is in row crop will appear similar to field crop, except the individual rows can be distinguished as narrow parallel lineations. Land that is being made ready for crop or has been harvested will appear as a uniform, smooth texture of off-white to tan color representing the just graded or plowed field. Fallow fields will appear similar to vacant lots or disturbed vacant land. The area will appear unkept, with a non-uniform texture representing a mixture of shrubs and grasses in a successional state. Fallow land will occur in close proximity to in-crop areas. The improved pasture land photo signature may appear similar to the cropland signature. Most improved pasture lands are mapped as non-irrigated (2120). In many cases post-harvest field crop, row crop, or fallow area will be used for pasture of livestock. Cropland and improved pastures may occur within electrical transmission line rights-of-way.

#### **2120 Non-Irrigated Cropland and Improved Pasture Land**

This category includes all non-irrigated cropland, including dry-farmed field crops.

Most non-irrigated cropland is represented by dry-farmed field crops such as peas, beans, barley, oats, and hay. The photo signature for field crop will show a dull green to mottled brown color with smooth, uniform texture. Furrows or plow marks may also be visible. Dry farmed areas may appear very similar to natural grass vegetation. Land that is being made ready for crop or has been harvested will appear as a uniform, smooth texture of off-white to tan color representing the just graded or plowed field. Fallow fields will appear similar to vacant lots or disturbed vacant land. The area will appear unkempt, with a non-uniform texture representing a mixture of shrubs and grasses in a

successional state. Fallow land will occur in close proximity to in-crop areas.

## 2200 ORCHARDS AND VINEYARDS

### **2200 Orchards and Vineyards**

This category includes commercially productive tree, bush, and vine crops.

Orchards include fruit and nut trees, and bush crops. The photo signature for citrus orchards appear as dark green, coarse textured areas, where the individual trees are distinguishable. The trees are aligned in a matrix form, with crowns appearing to abut each other. Nut and other fruit trees are similar, however, the color will be a lighter shade of green. The trees are aligned in a matrix form, with crowns abutting each other. Bush crops are similar to orchards, however, they may be configured in rows rather than a matrix, and are much shorter in height. The photo signature for vineyards will appear as dark green, coarse-textured, thin linear rows that, when measured, will be approximately five to ten feet apart. The height of vineyards is shorter than orchards. The orchard and vineyard areas will be neat and uniform. Orchard areas typically are formed as square plots of land, whereas vineyard plots typically form two sections on a similar-sized plot of land. In many cases orchards occur within electrical transmission line rights-of way. It is important to use stereo viewing, to avoid confusing vineyards with row crops.

## 2300 NURSERIES

### **2300 Nurseries**

This category includes land managed for the production of ornamental trees, plants and flowers, vegetable seedlings, seed farms, sod farms, and wholesale greenhouses.

Nurseries typically appear similar to row crops in configuration. The photo signature, however, reveals that it is an area of non-uniformity, where a few rows appear similar, then the next few rows are of a different type of plant, and so on. Trees may occur in some rows, then plants in the next section. Greenhouses or hot houses may also occur in some row areas, or in separate areas altogether. Greenhouses typically appear as long narrow structures abutting each other with steeply pitched roofs.

Together the roofs give an accordion effect.

In many cases nurseries occur within electrical transmission line rights-of-way. Also included in this

category are Christmas tree farms, which appear on the photo as groves with uneven spacing, smaller crown cover, and open space between the trees. On the aerial photo, sod farms appear similar to pasture or field crop; therefore, some field verification is necessary. Abandoned greenhouse structures are mapped as 2300.

## 2400 DAIRY AND INTENSIVE LIVESTOCK, AND ASSOCIATED FACILITIES

### **2400 Dairy and Intensive Livestock, and Associated Facilities**

This category includes large, specialized livestock and other specialty farms. These areas have a high concentration of animal population in a relatively small area. This class includes beef cattle feed lots, dairies, hog farms, and goat farms.

Livestock feedlots and dairies appear similar in that both contain a series of small fenced areas with a very high concentration of animals. Dairies contain simple rectangular shade structures that are evenly and widely spaced over the area. Structures for protecting stored hay bales may be present. Dairies also contain structures used for milking.

Both feedlot and dairies contain fenced areas with a very dark to black photo signature representing dung piles. Large fertilizer mounds associated with dairies are mapped as 2600. Pasture and field crop adjacent to and associated with dairies are mapped as 2110. Abandoned dairy structures are mapped as 2400.

## 2500 POULTRY OPERATIONS

### **2500 Poultry Operations**

This category includes poultry operations such as chicken, turkey, and egg farms.

Poultry farms typically contain a series of long, narrow enclosed structures in a parallel, side-by-side configuration. The photo signature shows each structure as having a white pitched roof, typically with air conditioning units. Grain feed storage structures may be located at the ends of the building. One to ten structures may occur in each group. Major poultry manure spreading grounds are coded 2600.

## 2600 OTHER AGRICULTURE

## **2600 Other Agriculture**

This category includes other miscellaneous agricultural facilities not described in the agricultural categories above. These facilities include storage facilities, dairy fertilizer piles, poultry manure spreading grounds, hydroponic farms, fish hatcheries, apiaries, and worm farms. Also included are backyard lots of mixed agricultural/non-agricultural use that meet the MMU.

Storage facilities can include isolated barns, or other structures located in, or adjacent to an agricultural area. Also included are small plots of land where heavy equipment or machinery is stored within the agricultural field area. Fish hatcheries may be identified on the basemap or on the collateral maps. Typically they appear as a series of small square or rectangular ponds adjacent to several small buildings. Track ovals not associated with a horse ranch are coded 2600. Backyard agriculture may include improved pastures, barns, and/or corrals. These areas are mapped as part of the residential class if the land use is less than 2.5 acres in size.

## 2700 HORSE RANCHES

### **2700 Horse Ranches**

This category includes commercial and non-commercial horse ranches, stables, tracks, barns, and corral areas, and improved pastureland. The 2700 class also includes backyard horse facilities, i.e. track ovals, walking rings, stables, barns, etc., that meet the MMU. Horse racing track facilities are mapped as Commercial Recreation (code 1232).

Stables appear as one or more long, narrow buildings within a farm complex, adjacent to pastures (irrigated pastures are coded as 2110). Horse tracks are large dirt oval tracks located at the horse ranches. Track ovals not associated with a horse ranch are coded 2600. Corral areas, included horse corrals associated with residential areas, are coded 2700. Improved pasture areas are fenced, containing water troughs, and possibly shade structures or enclosures. Improved pastures differ from fenced rangeland in that pasture contains smaller fenced areas, typically with individual enclosures of less than one hundred acres. Horse ranches may also occur within electrical transmission line rights-of-way.

## 3000 VACANT

Vacant areas include land that has not been built-up with man-made structures, and contains no agriculture or

waterbody. The area is open, containing natural or disturbed natural vegetation. Rangeland is included in this category. Areas containing abandoned structures are mapped as their previous use.

### **3100 Vacant Undifferentiated**

This category represents most occurrences of vacant land.

This class does not include vacant lots in urbanized areas (see code 1900), although terraced erosion control embankments are included. Also included in this category are road cuts. Undeveloped areas of parks are also included. Most vacant land is in a natural state, containing tree, brush/shrub, and/or grassland vegetation. No or few significant structures or improvements are present. Rangeland may be open land or fenced over large areas. Rangeland vegetation may be no different than open vacant land, or may contain grassland for grazing livestock. Eucalyptus groves are also included.

### **3200 Abandoned Orchards and Vineyards**

This category includes orchards and vineyards, formerly productive, now abandoned and not in commercial production.

Abandoned orchards and vineyards may contain successional or weedy vegetation between the rows. The photo signature may show and the field check may verify an unkept condition. Many trees or vine plants may be dead, or totally removed. If a significant number of trees remain on the lot, then the polygon is coded 3200. If most trees have been removed, then the polygon is mapped as Urban Vacant (code 1900) or Vacant Undifferentiated (code 3100).

### **3300 Vacant With Limited Improvements**

This category includes areas where streets have been laid in a subdivision pattern, but no further building or improvements have occurred over time.

Typically, the photo will show a network of streets, dirt or paved, but with no structures. The lots will be vacant, with natural vegetation.

### **3400 Beaches (Vacant)**

This category is used for vacant coastal beach areas not associated with a national, state, county, or municipal beach park.

The photo shows a white to tan signature of the sand area. The collateral data does not show these areas to be beach parks.

## 4000 WATER

Water includes open water bodies which are greater than 2.5 acres in size.

### **4100 Water, Undifferentiated**

This category includes all open water bodies greater than 2.5 acres in area not associated with water storage; and all water bodies associated with water storage that are greater than 5 acres in size.

Included in this class are oceans, lakes, reservoirs, golf course ponds, rivers, estuaries, and channels.

The water must occur perennially.

Water body delineations follow those depicted on the 7.5 minute U.S.G.S. topographic quadrangles, unless the configuration of the water body has changed significantly. Water bodies at low water levels are mapped at their normal levels to account for drought years. The photo signature for water is blue to dark blue.

### **4200 Harbor Water Facilities**

This category includes the water portion of harbor facilities. These include the slips and berths where the ships load and unload, the shipping channels, and outer harbor area within the outer jetty.

### **4300 Marina Water Facilities**

This category includes the water portion of marina facilities composed primarily of the boat mooring areas. The aerial photo will show an area of buoys or anchorages where the small pleasure boats moor or "park".

### **4400 Water Within a Military Installation**

This category includes all water bodies within a Military Installation of 2.5 acres or larger in size.

### **4500 Area of Inundation (High Water)**

This category includes the areas of water inundation. This occurs at the Salton Sea and includes the area from the basemap's designated shoreline to the 1990 shoreline as shown on the aerial photo.

This situation also occurs at Lake Skinner where the 1990 shoreline is greater than the basemap shoreline.

### **9999 No Photo Coverage**

Areas in which no photo coverage was available for land use mapping in the study. Lack of coverage

was usually due to air space restrictions near military reservations.



## **Appendix B1    Functional Classification of City Streets**



**APPENDIX B1  
FUNCTIONAL CLASSIFICATION OF CITY STREETS**

<b>ARTERIAL STREETS</b>	
Beverly Boulevard	Entire length through the City.
North Santa Monica Boulevard	Entire length through the City.
Olympic Boulevard	From western limits of City to Robertson Boulevard
San Vincente Boulevard	Entire length through the City.
Sunset Boulevard	Entire length through the City.
Wilshire Boulevard	Entire length through the City.
Burton Way	Entire length through the City.
Beverly Drive	From Whitworth Drive in the south to N. Santa Monica Boulevard in the north
South Santa Monica Boulevard	Entire length through the City.
<b>COLLECTOR STREETS</b>	
Benedict Canon Drive	Entire length through the City.
Beverly Drive	From Whitworth Drive in the south to the merge with Beverly Drive in the north
Coldwater Canyon Drive	Entire length through the City.
Doheny Drive	Entire length through the City.
La Cienega Boulevard	Entire length through the City.
Robertson Boulevard	Entire length through the City.



## **Appendix B2 24-Hour Traffic Counts Summary**



**APPENDIX B2  
24-HOUR TRAFFIC COUNTS SUMMARY**

Street	Location	Cross Street	Direction	Year	ADT Volumes	Factored to Year 2005
3rd	between	Foothill & Maple	Both	2005	6,464	6,464
3rd	between	Civic & Foothill	Both	2005	3,783	3,783
Alden Dr	between	Foothill & Maple	Both	2005	2,305	2,305
Almont	between	Charle & Gregory	Both	2002	916	939
Almont	between	Dayton & Clifton	Both	2002	790	810
Alpine Dr	between	Burton & Dayton	Both	2004	2,356	2,376
Alta Dr	s/o	Sunset	Both	2002	1,223	1,254
Angelo		Chevy Chase	WB	2003	1,838	1,869
Angelo		Chevy Chase	EB	2003	1,658	1,686
Arden	s/o	Sunset	Both	2002	463	475
Arnaz	s/o	Charleville	Both	1999	2,400	2,521
Bedford	between	Charle & Gregory	Both	2002	2,364	2,424
Beverly Bl	w/o	Oakhurst	Both	2001	30,501	31,530
Beverly Bl	between	Palm & Oakhurst	Both	2001	30,501	31,530
Beverly Dr	s/o	Brighton	SB	1999	11,564	12,149
Beverly Dr	s/o	Brighton	NB	1999	12,060	12,670
Beverly Dr	n/o	Sunset	NB	2002	7,785	7,982
Beverly Dr	n/o	Sunset	SB	2002	8,712	8,932
Beverly Dr	s/o	Olympic	SB	2003	10,941	11,126
Beverly Dr	n/o	Olympic	NB	2003	7,141	7,261
Brighton	w/o	Canon	WB	1999	3,502	3,679
Burton	e/o	Maple	WB	1998	13,160	13,937
Burton	w/o	Maple	EB	1998	16,240	17,199
Camden Dr	between	Greg & Charle	Both	2003	2,034	2,068
Canon	between	Brig & Dayton	SB	2002	5,785	5,931
Canon	between	Brig & Dayton	NB	2002	5,885	6,034
Canon	s/o	Brighton	NB	2000	6,030	6,284
Canon	s/o	Charleville	Both	1999	1,380	1,450
Canon	s/o	Gregory	NB	1999	843	886
Canon	s/o	Sunset	SB	2002	7,194	7,376
Canon	s/o	Sunset	NB	2002	6,447	6,610
Canon	between	Carm & Elevado	Both	2000	10,505	10,948
Canon	between	SSM & Brighton	SB	2004	4,890	4,931
Canon	between	SSM & Brighton	NB	2004	5,347	5,392
Canon	n/o	Carmelita	SB	2000	5,755	5,998
Canon	n/o	Carmelita	NB	2000	4,800	5,002
Carmelita	w/o	Rexford	Both	2000	4,743	4,943
Carson	n/o	Wilshire	Both	1995	1,095	1,187
Charleville	between	Durant & Lasky	Both	2004	4,370	4,407
Charleville	between	Lasky & Spald	Both	2004	5,656	5,704
Charleville	e/o	Arnaz	Both	1999	2,750	2,889
Charleville	w/o	Rexford	Both	1999	5,770	6,062
Charleville	w/o	Maple	Both	1999	4,360	4,581
Charleville	e/o	McCarty	Both	1996	5,967	6,420
Charleville	w/o	McCarty	Both	1996	5,522	5,941
Charleville	w/o	Lindon	EB	1998	1,990	2,107
					1,663	29,781
					1,017	18,213
Charleville	e/o	Roxbury	WB	1998	3,465	3,670

Street	Location	Cross Street	Direction	Year	ADT Volumes	Factored to Year 2005
					1,919	34,366
					1,118	20,021
Charleville	between	Durant & Lasky	Both	2004	4,370	4,407
Charleville	w/o	Crescent	Both	2001	6,666	6,891
Charleville	w/o	Wetherly	Both	2002	3,742	3,837
Charleville	w/o	Willaman	Both	2000	1,807	1,883
Charleville	w/o	Le Doux	Both	2000	900	938
Clifton	e/o	Canon	Both	2000	4,044	4,215
Clifton	w/o	Le Doux	Both	2005	5,485	5,485
Clifton	w/o	Rexford	Both	2000	3,914	4,079
Coldwater	n/o	Firestation	SB	2000	14,736	15,357
Coldwater	n/o	Firestation	NB	2000	13,950	14,538
Coldwater	n/o	Beverly	NB	2000	13,950	14,538
Coldwater	n/o	Beverly	SB	2000	14,736	15,357
Crescent	between	Olympic & Whitworth	Both	2002	550	564
Crescent	between	Olympic & Whitworth	Both	2002	549	563
Crescent	s/o	Clifton	SB	2000	5,267	5,489
Crescent	s/o	Charleville	Both	1999	3,676	3,862
Crescent	s/o	Gregory	Both	1999	2,383	2,504
Crescent	n/o	Parkway	SB	1999	4,110	4,318
Crescent	n/o	Parkway	NB	1999	4,633	4,867
Crescent	n/o	Sunset	NB	2000	2,155	2,246
			SB	2000	1,985	2,069
Dayton	w/o	Canon	EB	1999	5,522	5,801
Dayton	w/o	Foothill	Both	2002	2,459	2,521
Doheny	s/o	Clifton	NB	2000	8,630	8,994
					6,926	124,032
					5,230	93,660
Doheny	n/o	Clifton	SB	2000	9,585	9,989
					6,751	120,898
					5,464	97,850
Drury Ln	between	Loma & Hillcr	Both	2002	2,641	2,708
Drury Ln	between	Loma & Hillcr	Both	2002	1,507	1,545
Durant	w/o	Charleville	WB	1998	1,289	1,365
Elm	between	Olympic & Whitworth	Both	2002	675	692
Elm	s/o	Charleville	Both	1999	1,943	2,041
Foothill	n/o	Sunset	NB	2000	1,850	1,928
			SB	2000	1,625	1,694
Foothill	n/o	3rd St	Both	2005	2,853	2,853
Gale	s/o	Wilshire	Both	1995	4,686	5,081
Gale	n/o	Wilshire	Both	1995	7,265	7,878
Gregory	w/o	Peck Dr	Both	2002	3,161	3,241
Gregory	w/o	Canon	Both	1999	4,652	4,887
Gregory	w/o	Canon	EB	1999	2,264	2,379
Gregory	w/o	Arnas	Both	2000	9,080	9,463
Hamel	n/o	Wilshire	Both	1995	1,039	1,127
Hamilton	s/o	Wilshire	Both	1995	2,514	2,726
Hamilton	n/o	Wilshire	Both	1995	1,498	1,624
Hillcrest	s/o	Carmelita	Both	2002	1,156	1,185
Hillcrest	s/o	Sunset	Both	2002	2,314	2,373
La Cienega	n/o	Wilshire	SB	2002	24,269	24,883
La Cienega	s/o	Wilshire	NB	2002	24,448	25,067

Street	Location	Cross Street	Direction	Year	ADT Volumes	Factored to Year 2005
Lapeer	n/o	Witworth	Both	2002	4,278	4,386
Lapeer	n/o	Wilshire	SB	1995	2,155	2,337
Lapeer	n/o	Wilshire	NB	1995	2,533	2,747
Lapeer	between	Clufton & Dayton	Both	2002	2,869	2,942
Laurel Wy	w/o	Beverly	Both	2000	2,240	2,334
Lexington Rd	e/o	Crescent	Both	2002	1,901	1,949
Le Doux	s/o	Charleville	Both	2000	1,590	1,657
Linden	s/o	Wilshire	Both	1998	2,775	2,939
Linden	s/o	Gregory	Both	1991	1,560	1,744
				1999	1,514	1,591
				1999	975	1,024
Loma Linda	w/o	Coldwater	Both	2001	115	119
Loma Linda	n/o	Robert Ln	NB	2002	1,214	1,245
Loma Linda	n/o	Robert Ln	SB	2002	724	742
Loma Linda	n/o	Robert Ln	SB	2002	1,508	1,546
Lomitas	e/o	Beverly	Both	2000	1,888	1,968
Lomitas	w/o	Beverly	Both	2000	1,740	1,813
Maple	between	Day. & Bur.	Both	2002	646	662
Maple	n/o	Alden	Both	2004	4,204	4,239
Maple	between	Day & Clif	Both	2004	463	467
Maple	s/o	Charleville	Both	1999	1,480	1,555
Maple	n/o	Burton	NB	2000	2,748	2,864
Maple	s/o	3rd St	Both	2000	6,327	6,594
Maple	s/o	Wilshire	Both	1999	2,187	2,298
McCarthy	s/o	Wilshire	Both	1996	2,314	2,490
McCarthy	n/o	Charleville	Both	1996	2,347	2,525
Moreno	s/o	Durant	Both	2000	4,980	5,190
				2000	2,264	2,359
				2000	1,557	1,623
Moreno	s/o	SSM	Both	2003	3,551	3,611
Oakhurst	s/o	Gregory	Both	1999	2,397	2,518
Oakhurst	s/o	Charleville	Both	1999	1,860	1,954
Olympic	e/o	Doheny	EB	2002	26,588	27,261
			WB	2002	25,623	26,271
Parkway	w/o	Crescent	Both	1999	1,423	1,495
Palm		400 Block	Both	2001	1,113	1,151
Palm	n/o	Olympic	Both	2001	1,513	1,564
Palm	n/o	Clifton	Both	2001	1,567	1,620
Palm	s/o	Charleville	Both	1999	1,385	1,455
Palm	between	Charle/Gregory	Both	2002	1,281	1,313
Palm	s/o	Carmelita	Both	2002	5,238	5,371
Palm	between	Clifton & Dayton-200 Block	Both	2004	1,679	1,693
Palm	s/o	Sunset	Both	2003	2,421	2,462
				2003	1,553	1,579
				2003	984	1,001
Peck 200 S	between	Greg & Char	Both	2003	1,081	1,099
Reeves	s/o	Charleville	Both	1999	2,467	2,592
Rexford	between	Olympic & Whitw	Both	2002	4,716	4,835
Rexford	s/o	Wilshire	Both	1999	5,506	5,785
Rexford	s/o	Charleville	Both	1999	6,313	6,632
Rexford	s/o	Carmelita	Both	2002	8,037	8,240
Rexford	n/o	Elevado	Both	2000	6,650	6,930

Street	Location	Cross Street	Direction	Year	ADT Volumes	Factored to Year 2005
Rexford	n/o	Lexington	Both	2001	9,183	9,493
Robert Ln	between	Loma Vista & Hillcrest	Both	2002	235	241
Robertson	n/o	Whitworth	SB	2002	13,694	14,040
Robertson	n/o	Wilshire	NB	1996	14,827	15,952
Robertson	n/o	Wilshire	SB	1996	12,542	13,494
Robertson	n/o	Olympic	SB	1996	13,350	14,363
Rodeo	between	Sunset & Lomitas	NB	2002	2,775	2,845
Rodeo		800 N Block	SB	2002	3,043	3,120
Rodeo	between	Elevado & Lomitas	NB	2000	2,945	3,069
Rodeo		700 Block	SB	2000	3,363	3,505
Rodeo	s/o	Lomitas	SB	2000	3,416	3,560
			NB	2000	2,970	3,095
Rodeo	s/o	Carmelita	SB	2002	3,240	3,322
			NB	2002	2,882	2,955
Rodeo	s/o	Brighton	SB	2002	4,943	5,068
			NB	2002	3,745	3,840
Rodeo	n/o	Brighton	NB	1999	3,885	4,082
Roxbury	between	Charle & Gregory	N/A	N/A	N/A	N/A
Santa Monica N		Ramp to Civic Ctr	EB	2000	3,833	3,995
Santa Monica S	e/o	Moreno	WB	2000	12,944	13,490
			EB	2003	12,933	13,151
Santa Monica	w/o	Rodeo	EB	2000	17,428	18,163
Stanley	n/o	Gregory	Both	2002	2,171	2,226
Stanley	n/o	Wilshire	Both	1995	1,344	1,457
Sunset	between	Cres & Canon	EB	2002	19,245	19,732
Sunset	between	Cres & Canon	WB	2002	16,406	16,821
				2002	14,249	14,609
Sunset		BY THE HOTEL	WB	2002	17,344	17,783
Swall	s/o	Gregory	Both	2000	984	1,025
Swall	s/o	Charleville	Both	2001	1,460	1,509
Swall	s/o	Charleville	Both	2000	1,060	1,105
Tower Dr	s/o	Wilshire	Both	1995	1,620	1,757
Trenton	s/o	Whittier	Both	2000	1,200	1,251
Walden	s/o	Carmelita	Both	2000	830	865
Wetherly	between	Charle & Gregory	Both	2002	951	975
Wetherly	between	Clifton & Dayton	Both	2002	637	653
Whittier	n/o	Sunset	Both	1995	5,825	6,316
Willaman	n/o	Wilshire	Both	1995	2,497	2,708
Willaman	s/o	Charleville	Both	2000	3,861	4,024
Wilshire	e/o	Spalding	EB	2000	22,179	23,114
Wilshire	e/o	Spalding	WB	2000	22,319	23,260
Wilshire		Linden & S. SM	EB	2000	22,395	23,339
Wilshire		Linden-Spalding	WB	2000	22,076	23,007
Wilshire	w/o	Linden	EB	2001	23,283	24,068
Young	e/o	Moreno	Both	1998	865	916

A growth factor of .8433% per year was used to factor up the ADT volumes to 2005 where ever seemed necessary.

**Appendix B3 Summary of Level of Service at  
Analyzed Intersections**



**APPENDIX B3  
EXISTING WEEKDAY MID-DAY PEAK HOUR INTERSECTION CONDITIONS**

ID No	N/S Street	E/W Street	Weekday MID-DAY Peak Hour	
			V/C	LOS
1	Benedict Canon Drive	Sunset Boulevard	1.150	F
2	Beverly Drive / Crescent Drive	Sunset Boulevard	1.212	F
3	Whittier Drive	Wilshire Boulevard	0.870	D
4	North Santa Monica Boulevard	Wilshire Boulevard	0.883	D
5	South Santa Monica Boulevard	Wilshire Boulevard	0.937	E
6	Beverly Drive	North Santa Monica Boulevard	0.885	D
7	Beverly Drive	South Santa Monica Boulevard	0.817	D
8	Canon Drive	North Santa Monica Boulevard	0.827	D
9	Canon Drive	South Santa Monica Boulevard	0.693	B
10	Rexford Drive	North Santa Monica Boulevard	0.933	E
11	Rexford Drive	South Santa Monica Boulevard	0.545	A
12	Palm Drive	Beverly Boulevard	0.745	C
13	Doheny Drive	North Santa Monica Boulevard/Melrose Avenue	0.791	C
14	Spalding Drive	Olympic Boulevard	0.817	D
15	Beverly Drive	Wilshire Boulevard	0.813	D
16	Beverwil Drive	Olympic Boulevard	0.730	C
17	Beverly Drive	Olympic Boulevard	0.657	B
18	N. Canon Drive	Wilshire Boulevard	0.656	B
19	Foothill Road	Burton Way	0.616	B
20	Rexford Drive	Wilshire Boulevard	0.668	B
21	Rexford Drive	Olympic Boulevard	0.624	B
22	Doheny Drive	Beverly Boulevard	0.907	E
23	Doheny Drive	Burton Way	0.794	C
24	Doheny Drive	Wilshire Boulevard	0.791	C
25	Doheny Drive	Olympic Boulevard	0.748	C
26	La Peer Drive	Burton Way	0.560	A
27	La Peer Drive	Wilshire Boulevard	0.472	A
28	Le Peer Drive	Olympic Boulevard	0.563	A
29	Robertson Boulevard	Burton Way	0.920	E
30	Robertson Boulevard	Wilshire Boulevard	0.824	D
31	Robertson Boulevard	Olympic Boulevard	0.780	C
32	Willaman Drive	Wilshire Boulevard	0.534	A
33	La Cienega Boulevard	Wilshire Boulevard	0.875	D
34	Gale Drive	Wilshire Boulevard	0.591	A
35	San Vicente Boulevard	Wilshire Boulevard	0.716	C
<b>Summary</b>				
<b>Level of Service</b>			<b>No. of Intersection</b>	
Intersections operating at LOS A-C			<b>20</b>	
Intersections operating at LOS D			<b>9</b>	
Intersections operating at LOS E			<b>4</b>	
Intersections operating at LOS F			<b>2</b>	



**Appendix B4 Municipal Parking Structures  
Capacity, Hours of Operation, and  
Rates**



**APPENDIX B4**  
**Municipal Parking Structures Capacity, Hours of Operation, and Rates**

Facility Location	Parking Hours	Parking Rates	Capacity	Total Spaces
Beverly North 345 N. Beverly Drive (Self-Park Structure)	Mon. - Sat. 8am - 11pm  Sun. 8:30am - 10pm	First 2 Hours Free then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$13.00 Monthly Rate - None	287 (158 U) H7 (129L)	287
Beverly South 216 S. Beverly Drive (Self-Park Structure)	Daily 6am - 12am	First 2 Hours Free then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Overnight Parking-\$2 Vehicles Entering After 6pm and Exiting Before 9am  \$3.50 Max-Vehicles Entering After 5pm and Exiting Before 10am  Daily Maximum - \$13.00 Monthly Rate - None	233 H8	233
Beverly - Canon 439 N. Beverly Drive 438 N. Canon Drive (Self-Park Structure / Limited Valet Service)	Mon. - Sat. 6am - 12 am Sun. - Sat. 8am - 12am	First 2 Hours Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Valet Service Fee - \$4.00  Daily Maximum - \$13.00 Monthly Rate - None	408 H8	408
BRIGHTON 9510 Brighton Way (Self-Park Structure)	Mon. - Sat. 8am - 9pm  Sun. noon - 8pm	First 2 Hours Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$13.00  Monthly Rate - \$115.00	249	249
CAMDEN 440 N. Camden Drive (Self-Park Structure)	Mon - Sat 7am - 11pm	First 2 Hours Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$13.00 Monthly Rate - \$100.00	364 H8	364
BEDFORD 461 N. Bedford Drive (Self-Park Structure)	Mon. - Wed. 6am - 10pm  Thurs. - Sat. 6am - 12am	First 1 Hour Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm Daily Maximum - \$13.00 Monthly Rate - \$82.60	471 (249U) H6 (222L) H3	471
REXFORD 450 N. Rexford Drive (Self Park Structure)	Open 24 Hours	First 2 Hours Free Then \$0.50 Per 1/2 Hour  No Charge Vehicles Entering After 5pm and Exiting Before 6am Daily Maximum - \$6.50 Monthly Rate - None	560	560
T EAST 241 N. Canon Drive (Attended Lot)	Mon. - Sat. 7:30am - 11pm  Sun. 10am - 7pm	First 2 Hours Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$13.00 Monthly Rate - None	62S/26D H3	88
T WEST 240 N. Beverly Drive (Attended Lot)	Mon. - Sat. 7:30am - Midnight  Sun. 8am - 10pm	First 2 Hours Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$13.00 Monthly Rate - None	67S/28D H3	95

Facility Location	Parking Hours	Parking Rates	Capacity	Total Spaces
LA CIENEGA 321 S. La Cienega Blvd (Self Park Structure)	Mon. - Fri. 6am - 11pm  Sat. - Sun. 6am - 11pm  (No Parking Attendant on Duty)	First 2 Hours Free Then \$0.50 Per 1/2 Hour  No Charge Vehicles Entering After 4pm to Closing or All Day Sat. & Sun.  Daily Maximum - \$6.50 Monthly Rate - \$55.00	319 H8  39 Academy of Motion Pictures	357
CRESCENT NORTH 333 N. Crescent Drive (Self Park Structure)	Mon. - Fri. 7:30am - 10pm  Sat. 7:30am - 8pm	First 1 Hour Free Then \$0.50 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$6.50  Early Bird - \$4.00 All Day - Vehicles entering before 10am  Monthly Rate - \$70.00	515 H8	515
CRESCENT SOUTH 221 N. Crescent Drive (Self Park Structure)	Daily 6am - 12am	First 1 Hour Free Then \$0.50 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$6.50  Early Bird - \$4.00 All Day - Vehicles entering before 10am  Monthly Rate - \$62.00	733 H14	733
DAYTON 9361 Dayton Way (Self Park Structure)	Mon. - Fri. 6am - 10pm  Sat. 6am - 8pm  Sun. 8am - 3pm	First 1 Hour Free Then \$1 Per 1/2 Hour  \$2 Flat Rate Vehicles Entering After 6pm  Daily Maximum - \$9.00 Monthly Rate - \$70.00	221 H7	221
SM-1 485 N. Beverly Drive Beverly-Rodeo Drive (Metered Structure)	Mon. - Sat. 8am - 6pm	3 Hour Parking Meters \$1 Per Hour (Quarters Only)  Daily Maximum - None Monthly Rate - None	72 H3	72
SM-2 485 N. Rodeo Drive Rodeo-Camden Drive (Metered Structure)	Mon. - Sat. 8am - 6pm	3 Hour Parking Meters \$1 Per Hour (Quarters Only)  Daily Maximum - None Monthly Rate - None	69 H3	69
SM-3 485 N. Camden Drive Camden-Bedford Drive (Metered Structure)	Mon. - Sat. 8am - 6pm	3 Hour Parking Meters \$1 Per Hour (Quarters Only)  Daily Maximum - None Monthly Rate - \$93.00	72 H3	72
SM-4 485 N. Bedford Drive Bedford-Roxbury Drive (Metered Structure)	Mon. - Sat. 8am - 6pm	3 Hour Parking Meters \$1 Per Hour (Quarters Only)  Daily Maximum - None Monthly Rate - \$93.00	71 H3	71
SM-5 485 N. Roxbury Drive Roxbury-Linden Drive (Metered Structure)	Mon. - Sat. 8am - 6pm	3 Hour Parking Meters \$1 Per Hour (Quarters Only)  Daily Maximum - None Monthly Rate - \$93.00	113 H5	113

Legend:

U - Upper  
L - Lower  
H - Handicap Parking (Included in total)

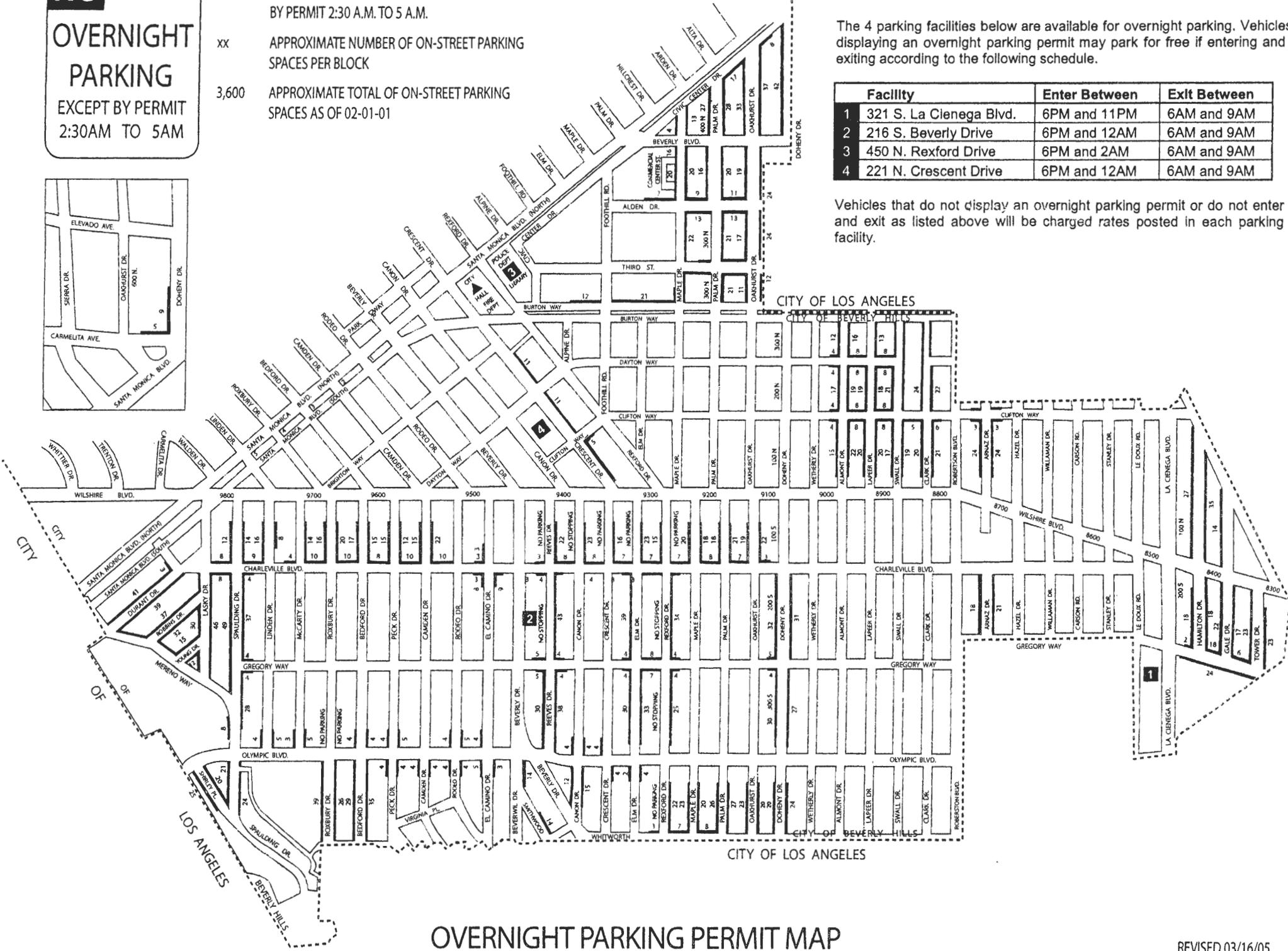
**FOR FURTHER INFORMATION CONCERNING THE CITY OF BEVERLY HILLS PARKING FACILITIES, PLEASE CONTACT THE CITY OF BEVERLY HILLS DEPARTMENT OF PUBLIC WORKS AT 310.285.2552. AFTER NORMAL WORKING HOURS, OR IN CASE OF EMERGENCY, CALL 310.281.2798**

## **Appendix B5 Parking Permit Maps**



**NO**  
**OVERNIGHT**  
**PARKING**  
 EXCEPT BY PERMIT  
 2:30AM TO 5AM

- SIGNS POSTED--NO OVERNIGHT PARKING EXCEPT BY PERMIT 2:30 A.M. TO 5 A.M.
- xx APPROXIMATE NUMBER OF ON-STREET PARKING SPACES PER BLOCK
- 3,600 APPROXIMATE TOTAL OF ON-STREET PARKING SPACES AS OF 02-01-01



The 4 parking facilities below are available for overnight parking. Vehicles displaying an overnight parking permit may park for free if entering and exiting according to the following schedule.

Facility	Enter Between	Exit Between
1 321 S. La Cienega Blvd.	6PM and 11PM	6AM and 9AM
2 216 S. Beverly Drive	6PM and 12AM	6AM and 9AM
3 450 N. Rexford Drive	6PM and 2AM	6AM and 9AM
4 221 N. Crescent Drive	6PM and 12AM	6AM and 9AM

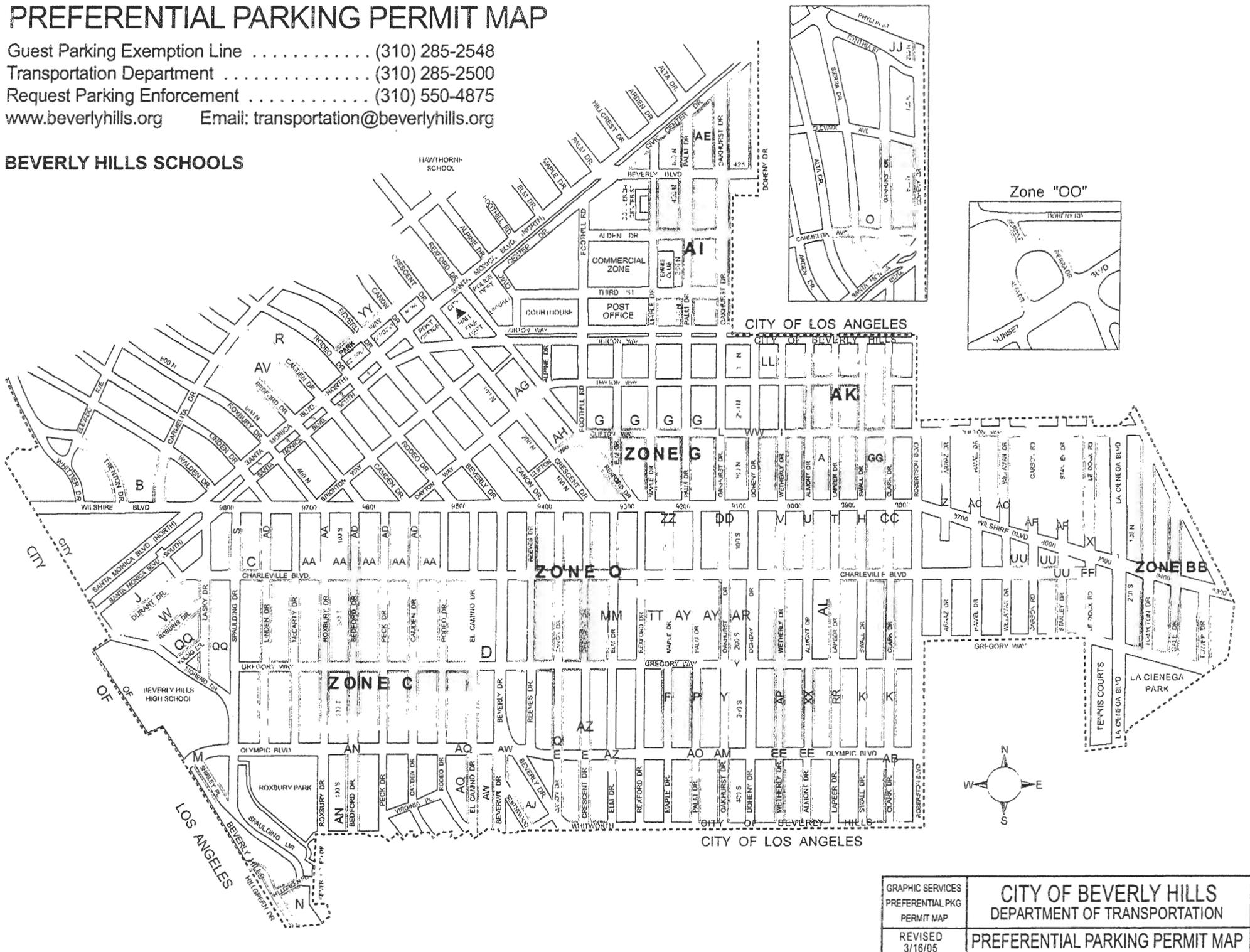
Vehicles that do not display an overnight parking permit or do not enter and exit as listed above will be charged rates posted in each parking facility.

**OVERNIGHT PARKING PERMIT MAP**

# PREFERENTIAL PARKING PERMIT MAP

Guest Parking Exemption Line ..... (310) 285-2548  
 Transportation Department ..... (310) 285-2500  
 Request Parking Enforcement ..... (310) 550-4875  
 www.beverlyhills.org Email: transportation@beverlyhills.org

## BEVERLY HILLS SCHOOLS



GRAPHIC SERVICES PREFERENTIAL PKG PERMIT MAP	<b>CITY OF BEVERLY HILLS</b> DEPARTMENT OF TRANSPORTATION
REVISED 3/16/05	<b>PREFERENTIAL PARKING PERMIT MAP</b>

## **Appendix C    Plant and Animal Information**



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## Appendix C Plant and Animal Information

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### C.1 HABITAT TYPES

#### ■ Ornamental

This plant community of predominantly nonnative grasses exists in moderately disturbed areas along roadways and in residential areas. It can also be found in patches of native scrub and oak woodland throughout the site. Species common to these areas include red brome (*Bromus rubens*), mustard (*Brassica geniculata*), poa (*Poa annua*), London rocket (*Sisymbrium irio*), and storksbill (*Erodium cicutarium*).

#### ■ Chaparral

##### **Chamise Chaparral**

Chamise chaparral is a 1- to 3-meter-tall, often nearly impenetrable vegetation community that is dominated by chamise (*Adenostoma fasciculatum*) with other shrub species scattered throughout. Other species that occur in this community include elements of the coastal sage scrub community, such as black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), deerweed (*Lotus scoparius*), and thicket yerbasanta (*Eriodictyon crassifolium*). Buck brush (*Ceanothus cuneatus*), our lord's candle (*Yucca whipplei*), and scrub oak (*Quercus dumosa*) are also found within this community. These associated species are sparsely distributed and contribute little to the overall canopy of the community. Additionally, due to the density of cover, this community generally has very little herbaceous understory. This vegetation community is typically associated with dry, rocky (often steep) slopes with little soil. Chamise chaparral frequently occurs adjacent to oak woodlands, although the underlying soils are much rockier. This community has adapted to repeated fires from which it recovers by stump sprouting.

##### **Mixed Chaparral**

Mixed chaparral is a structurally homogenous brushland type dominated by shrubs with thick, stiff evergreen leaves. These shrubs form a dense, often nearly impenetrable vegetation community with a canopy ranging from 1 to 4 meters tall. Mixed chaparral in the project site is dominated by a combination of *Ceanothus* species (*Ceanothus* spp.), chamise, black sage, California sagebrush, and California buckwheat. Associated species include toyon (*Heteromeles arbutifolia*), chaparral currant (*Ribes malvaceum*), coyote brush (*Baccharis pilularis*), big-berry manzanita (*Arctostaphylos glauca*) and other manzanitas (*Arctostaphylos* spp.), mountain mahogany (*Cercocarpus betuloides* var. *betuloides*), blue

elderberry (*Sambucus mexicana*), thicket leaf yerbasanta, deerweed, and scrub oak. Occasional live oaks (*Quercus agrifolia*) are scattered throughout this habitat type. The herbaceous understory consists of annual grasses (*Bromus diandrus*, *Bromus madritensis*, *Bromus tectorum*, *Avena fatua*, *Hordeum jubatum*), bunchgrasses (*Festuca* sp.) and herbs, such as black mustard (*Brassica nigra*), and composites. Infrequent occurrences of prickly-pear (*Opuntia* sp.) are found scattered throughout this habitat type.

### **Scrub Oak Chaparral**

This community is found throughout the western Sierra foothills and North Coast ranges from Tehama County south through the southern California mountains to Baja California. This community is somewhat more mesic than many chaparrals and often occurs at slightly higher elevations (to 5,000 feet). The more favorable sites recover from fire more quickly than other chaparrals, and substantial leaf litter accumulates. The vegetation is characterized by a dense, evergreen chaparral up to 20 feet tall dominated by scrub oaks *Quercus berberidifolia* with considerable birch-leaf mountain mahogany (*Cercocarpus betuloides*).

## C.2 SENSITIVE BIOLOGICAL RESOURCES

<b>Table C-1 Sensitive Biological Resources: Animals</b>		
<i>Common Name (Scientific Name)</i>	<i>Federal/State Status</i>	<i>Global/State Rank</i>
<b>Amphibians</b>		
Arroyo toad ( <i>Bufo californicus</i> )	Endangered/None	G2G3/S2S3
<b>Reptiles</b>		
Coast (San Diego) horned lizard ( <i>Phrynosoma coronatum [blainvillei]</i> )	None/None	G4T3T4
San Diego mountain kingsnake ( <i>Lampropeltis zonata pulchra</i> )	None/None	G4G5T1T2/S1S2
Southwestern pond turtle ( <i>Emys [=Clemmys] marmorata pallida</i> )	None/None	G3G4T2T3/S2
Coastal western whiptail ( <i>Aspidoscelis tigris stejnegeri</i> )	None/None	G1/S1
<b>Birds</b>		
Belding's savannah sparrow ( <i>Passerculus sandwichensis beldingi</i> )	None/Endangered	G5T3/S3
California black rail ( <i>Laterallus jamaicensis coturniculus</i> )	None/None	G4T3T4/S2S3
California least tern ( <i>Sterna antillarum browni</i> )	Endangered/ Endangered	G4T2T3Q/S2S3
Burrowing owl ( <i>Athene cunicularia</i> )	None/None	G4/S2
Coastal California gnatcatcher ( <i>Polioptila californica californica</i> )	Threatened/None	G3/S2
Least Bell's vireo ( <i>Vireo bellii pusillus</i> )	Endangered/ Endangered	G5T2/S2
Southwestern willow flycatcher ( <i>Empidonax traillii extimus</i> )	Endangered/ Endangered	G5T1T2/S1
Tricolored blackbird ( <i>Agelaius tricolor</i> )	None/None	G2G3/S2
Western snowy plover ( <i>Charadrius alexandrinus nivosus</i> )	Threatened/None	G4T3/S2
<b>Mammals</b>		
American badger ( <i>Taxidea taxus</i> )	None/None	G5/S4
Dorothy's El Segundo Dune weevil ( <i>Trigonoscuta dorothea</i> )	None/None	G1T1/S1
Pacific pocket mouse ( <i>Perognathus longimembris pacificus</i> )	Endangered/None	G5T1/S1
South coast marsh vole ( <i>Microtus californicus stephensi</i> )	None/None	G5T1T2/S1S2
Western yellow bat ( <i>Lasiurus xanthinus</i> )	None/None	

<b>Table C-1 Sensitive Biological Resources: Animals</b>		
<b>Common Name (Scientific Name)</b>	<b>Federal/State Status</b>	<b>Global/State Rank</b>
Southern grasshopper mouse ( <i>Onychomys torridus</i> <i>□amona</i> )	None/None	G5T3? <sup>a</sup> /S3? <sup>a</sup>
<b>Fishes</b>		
Southern steelhead – Southern California esu ( <i>Oncorhynchus mykiss irideus</i> )	Endangered/None	G5T2/S2
<b>Insects</b>		
El Segundo blue butterfly ( <i>Euphilotes battoides allyni</i> )	Endangered/None	G5T1/S1
Henne's eucosman moth ( <i>Eucosma hennei</i> )	None/None	G1/S1
Lange's El Segundo Dune weevil ( <i>Onychobaris langei</i> )	None/None	G1/S1
Santa Monica shieldback katydid	None/None	G1G2/S12
Globose dune beetle ( <i>Coelus globosus</i> )	None/None	G1/S1
Monarch butterfly ( <i>Danaus plexippus</i> )	None/None	G5/S3
Sandy beach tiger beetle ( <i>Cicindela hirticollis gravida</i> )	None/None	G5T4/S1
Tiger beetle ( <i>Cicindela senilis frosti</i> )	None/None	G4T1/S1
Wandering (=saltmarsh) skipper ( <i>Panoquina errans</i> )	None/None	G4G5/S1
Belkin's dune tabanid fly ( <i>Brennania belkini</i> )	None/None	G1G2/S1S2
<b>Snails</b>		
Mimic tryonia (=California brackishwater snail) ( <i>Tryonia imitator</i> )	None/None	G2G3/S2S3
SOURCE: California Department of Fish and Game Natural Diversity Data Base 2005, January		
<sup>a</sup> This designation indicates Natural Diversity Database's uncertainty over the global and state rank of the biological resources.		

The CNPS is a resource conservation organization that has developed an inventory of California's special status plant species. This inventory is the summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory is comprised of four lists. CNPS presumes that List 1A plant species are extinct in California because they have not been seen in the wild for many years. CNPS considers List 1B plants as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California but more common in the rest of its range. Plant species for which CNPS needs additional information are included on List 3. List 4 plant species are those of limited distribution in California whose susceptibility to threat appears low at this time.

<b>Table C-2 Sensitive Biological Resources: Plants and Habitats</b>			
<i>Common Name (scientific name)</i>	<i>Federal/State Status</i>	<i>Global/State Rank</i>	<i>CNPS</i>
<b>Plants</b>			
Ballona cinquefoil ( <i>Potentilla multijuga</i> )	None/None	GX/SX	1A
Blochman's dudleya ( <i>Dudleya blochmaniae</i> ssp. <i>Blochmaniae</i> )	None/None	G2T2/S2.1	1B
Brand's phacelia ( <i>Phacelia stellaris</i> )	None/None	G1G2/S1.1	1B
Braunton's milk-vetch ( <i>Astragalus brauntonii</i> )	Endangered/ None	G2/S2.1	1B
California Orcutt grass ( <i>Orcuttia californica</i> )	Endangered/ Endangered	G2/S2.1	1B
Coulter's goldfields ( <i>Lasthenia glabrata</i> ssp. <i>Coulteri</i> )	None/None	G4T3/S2.1	1B
Davidson's bush mallow ( <i>Malacothamnus davidsonii</i> )	None/None	G1/S1.1	1B
Davidson's saltscale ( <i>Atriplex serenana</i> var. <i>davidsonii</i> )	None/None	G5T2 <sup>2a</sup> /S2 <sup>2a</sup>	1B
Greata's aster ( <i>Aster greatae</i> )	None/None	G2/S2.3	1B
Los Angeles sunflower ( <i>Helianthus nuttallii</i> ssp. <i>Parishii</i> )	None/None	G5TH/SH	1A
Nevin's barberry ( <i>Berberis nevinii</i> )	Endangered/ Endangered	G2/S2.2	1B
Orcutt's pincushion ( <i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> )	None/None	G5T3/S2.1	1B
Parish's brittlescale ( <i>Atriplex parishii</i> )	None/None	G1G2/S1.1	1B
Plummer's mariposa lily ( <i>Calochortus plummerae</i> )	None/None	G3/S3.2	1b
Salt Spring checkerbloom ( <i>Sidalcea neomexicana</i> )	None/None	G4 <sup>2a</sup> /S2S3	2
San Fernando Valley spineflower ( <i>Chorizanthe parryi</i> var. <i>Fernandina</i> )	Candidate/ Endangered	G2T1/S1.1	1B
Santa Barbara morning-glory ( <i>Calystegia sepium</i> ssp. <i>Binghamiae</i> )	None/None	G5TH/SH	1A
Santa Monica Mountains dudleya ( <i>Dudleya cymosa</i> ssp. <i>Ovatifolia</i> )	Threatened/ None	G5T2/S2.2	1B
Santa Susana tarplant ( <i>Deinandra minthornii</i> )	None/Rare	G2/S2.2	1B
Ventura Marsh milk-vetch ( <i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> )	Endangered/ Endangered	G2T1/S1.1	1B
Beach spectaclepod ( <i>Dithyrea maritime</i> )	None/ Threatened	G2/S2.1	1B
Coastal dunes milk-vetch ( <i>Astragalus tener</i> var. <i>titi</i> )	Endangered/ Endangered	G1T1/S1.1	1B
Many-stemmed dudleya ( <i>Dudleya multicaulis</i> )	None/None	G2/S2.1	1B
Mesa horkelia ( <i>Horkelia cuneata</i> ssp. <i>Puberula</i> )	None/None	G4T2/S2.1	1B
Mud nama ( <i>Nama stenocarpum</i> )	None/None	G4G5/S1S2	2
Prostrate navarretia ( <i>Navarretia prostrate</i> )	None/None	G2 <sup>2a</sup> /S2.1 <sup>2a</sup>	1B

**Table C-2 Sensitive Biological Resources: Plants and Habitats**

Common Name (scientific name)	Federal/State Status	Global/State Rank	CNPS
Salt marsh bird's-beak ( <i>Cordylanthus maritimus</i> ssp. <i>Maritimus</i> )	Endangered/ Endangered	G4?T2 <sup>a</sup> /S2.1	1B
Slender-horned spineflower ( <i>Dodecahema leptoceras</i> )	Endangered/ Endangered	G1/S1.1	1B
Southern tarplant ( <i>Centromadia parryi</i> ssp. <i>Australis</i> )	None/None	G4?T2 <sup>a</sup> /S2.1	1B
Spreading navarretia ( <i>Navarretia fossalis</i> )	Threatened/ None	G2/S2.1	1B

**Habitats**

California Walnut Woodland	None/None	G2/S2.1	
Riversidean Alluvial Fan Sage Scrub	None/None	G1/S1.1	
Southern Coast Live Oak Riparian Forest	None/None	G4/S4	
Southern Coastal Salt Marsh	None/None	G2/S2.1	
Southern Cottonwood Willow Riparian Forest	None/None	G3/S3.2	
Southern Dune Scrub	None/None	G1/S1.1	
Southern Sycamore Alder Riparian Woodland	None/None	G4/S4	

SOURCE: California Department of Fish and Game Natural Diversity Data Base 2005, January

<sup>a</sup> This designation indicates Natural Diversity Database's uncertainty over the global and State rank of the biological resources.

**KEY TO SPECIAL STATUS DESIGNATIONS**

Within the **CDFG's Natural Diversity Data Base**, rankings are provided for priority of preservation for terrestrial plant communities that are considered sensitive. Rankings are divided into four categories:

Less than six element occurrences (EOs), or less than 1,000 individuals, or less than 2,000 acres:

**S1.1** Very threatened (the majority of occurrences are threatened, or the majority of individuals are in occurrences which are threatened)

**S1.2** Threatened (the element has some but not the majority of occurrences threatened and/or has occurrences that will soon be threatened)

**S1.3** No threats known (no obvious or predictable threats exist)

Six to twenty EOs, or 1,000 to 3,000 individuals, or 2,000 to 10,000 acres:

**S2.1** Very threatened

**S2.2** Threatened

**S2.3** No threats known

Twenty-one to 100 EOs, or 3,000 to 10,000 individuals, or 10,000 to 50,000 acres:

**S3.1** Very threatened

**S3.2** Threatened

**S3.3** No threats known

Greater than 100EOs, or greater than 10,000 individuals, or greater than 50,000 acres:

**S4** Apparently secure; clearly lower than an S3 but reasons exist to be concerned, for example, there is some threat or narrow habitat (such as the Sierra Nevada)

**S5** Demonstrably secure to ineradicable

**SH** All California sites are historical

**Table C-2 Sensitive Biological Resources: Plants and Habitats**

<i>Common Name (scientific name)</i>	<i>Federal/State Status</i>	<i>Global/State Rank</i>	<i>CNPS</i>
<p><b>California Native Plant Society:</b> The California Native Plant Society (CNPS) is a nonprofit organization that collects and publishes information about California plant species that are of concern because of declines in population or other problems. The CNPS Inventory of Rare and Endangered Vascular Plants of California is considered to be a reliable source of information about sensitive plants in California. Their status categories are identified below:</p>			
<p>1A This includes plant species that are presumed to be extinct in California. These species have not been collected within California for many years.</p>			
<p>1B This includes plants that are considered by CNPS to be rare, threatened, or endangered in California and elsewhere in their range.</p>			
<p>2 This includes plants that are considered by CNPS to be rare, threatened, or endangered in California, but are more common elsewhere.</p>			
<p>3 This includes plants about which more information is needed. These plants have been recommended for inclusion in a sensitive category by CNPS, but adequate information on their distribution and abundance is not available to determine their correct status.</p>			
<p>4 This includes plant species of limited distribution in the State, which CNPS feels should be carefully monitored. List 4 is considered to be a “watch list” for plants, and taxa included could be moved to List 1B or 2 if they become less common.</p>			

### C.3 SENSITIVE BIOLOGICAL RESOURCES DESCRIPTIONS

**Arroyo Toad (*Bufo californicus*).** Arroyo toad is a federally-designated threatened species. The arroyo toad is a small (5 to 8 centimeters (cm) (2 to 3 inches)), light greenish gray or tan toad with warty skin and dark spots. Its underside is buff colored and often without spots. A light-colored stripe crosses the head and eyelids, and a light area usually occurs on each sacral hump and in the middle of the back. The arroyo toad is restricted to rivers that have shallow, gravelly pools adjacent to sandy terraces.

**Beach spectaclepod (*Dithyrea maritime*).** This species is a state-designated rare plant and is typically located in sand dune areas.

**Belding's Savannah Sparrow (*Passerculus sandwichensis ssp. Beldingi*).** Belding's savannah sparrow is a state endangered species that occurs in coastal areas of southern California and Baja California where it is a year-round resident of coastal salt marshes and associated mudflats and salt flats. Dense stands of pickleweed in the upper region of salt marshes that flood only during extremely high spring tides are its preferred nesting habitat. Belding's savannah sparrow forages on insects in the marsh and intertidal zone as well as in nearby mudflats and salt flats.

**Braunton's Milk-Vetch (*Astragalus brauntonii*).** This species is a federally-designated endangered plant. This species generally occurs below 2100 feet (640 m) in elevation, on south-, west-, and east-facing slopes, in open areas within chaparral. It is often found growing in disturbed areas such as burn areas, along fire roads or fuel breaks, and in areas that have been cleared by some means and where competition is low.

**California Gnatcatcher (*Polioptila californica californica*).** The California gnatcatcher is listed as threatened by the USFWS and, as an obligate resident of southern California coastal sage scrub communities near arid hillsides, mesas, and washes.

**California Least Tern (*Sterna antillarum browni*).** The California least tern is a state and federal endangered species. They are migratory, arriving in California in the spring of each year. They inhabit bays and lagoons and forms breeding colonies in the adjacent open sandy beaches, dunes, alkali flats, land fills, or disturbed sites. Intense coastal development and increased human activity on beaches have seriously effected populations.

**California Orcutt Grass (*Orcuttia californica*).** California Orcutt grass is a state and federally-listed endangered species. It is a member of the grass family (*Poaceae*) that is a bright green, sticky, aromatic annual with flowers borne in dense spikes. This species was once commonly found in the volcanic terrace and valley vernal pool systems of southern California in Los Angeles, Riverside and San Diego counties. Only three populations of orcutt grass remain in Ventura and Los Angeles counties, none of which are in the City vicinity. This species was last collected near Lakewood, sometime prior to 1977 and is listed as extirpated by the CNDDDB (2004.)

**Coastal Dunes Milk-Vetch (*Astragalus tener var. titi*).** This is a state and federally-designated endangered plant. It is a low, dwarf annual plant with slender stems, leaves divided into wedge-like or oval leaflets, terminal clusters of purple flowers, and straight or curved pods. This plant grows in moist depressions on clay soils in coastal terrace grasslands and in coastal strand vegetation on sand dunes.

**El Segundo Blue Butterfly (*Euphilotes battoides allyni*).** This species is a federally endangered butterfly that is primarily restricted to remnant coastal dune habitat within Southern California. This species was last documented at the El Segundo Dunes, just west of Los Angeles International Airport.

**Least Bell's Vireo (*Vireo bellii pusillus*).** The least Bell's vireo is a state and federal endangered species that occurs in moist thickets and riparian areas that are predominantly composed of willow and mule fat.

**Marcescent (Santa Monica Mountains) Dudleya (*Dudeya cyosa* spp. *marcescens*).** The Santa Monica Mountains dudleya is a federally threatened species. It is a succulent perennial that grows on rocky volcanic cliffs and canyon walls in the Santa Monica Mountains from Hidden Valley to Malibu Creek State Park. It is known from seven occurrences, and the total number of known individuals is estimated to be less than 1,000.

**Nevin's Barberry (*Berberis nevinii*).** This species is an evergreen shrub that is federally and state-listed as endangered. This species occurs in chaparral, coastal and riparian scrub communities, and cismontane woodland, in gravelly soils. It is associated with steep slopes and low-grade sandy washes within Los Angeles County in the San Fernando Valley as well as in the Arroyo Seco, San Timeteo Canyon and Redlands areas. This species flowers from March to April and can be found at elevations from 950 to 5,200 feet.

**Pacific Pocket Mouse (*Perognathus longimembris pacificus*).** The Pacific pocket mouse is a federally-listed endangered species and a California Species of Concern. Historically, the Pacific pocket mouse range once extended from Los Angeles County south to the Mexican border. Currently pocket mice are only found within 4 kilometers of the coast on fine grained sandy substrates in coastal sage scrub, coastal strand, and river alluvium.

**Salt Marsh Bird's-Beak (*Cordylanthus maritimus* spp. *maritimus*).** Salt marsh bird's-beak is a state and federally endangered species that grows in the higher reaches of coastal salt marshes to intertidal and brackish areas influenced by freshwater input. Some plants occur in non-tidal areas or in areas of perched water tables; there may be different ecotypes. The plants are hemiparasitic, sometimes obtaining moisture and nutrients from the roots of their host plants, which are usually perennials.

**San Fernando Valley Spineflower (*Chorizanthe parryi var. fernandin*).** This species is a member of the buckwheat family and grows in sandy or gravelly soils along dry

washes. The San Fernando Valley Spineflower typically blooms with tiny white flowers from April to June. It is threatened by loss of habitat and competition with exotic invasive plants. It formerly occurred in San Bernardino, Riverside, Orange, Ventura, and Los Angeles Counties, but now known only to occur in a few locations.

**Santa Susana Tarplant (*Deinandra minthornii*).** This species has a state-designation of rare, and is typically located in coastal sage scrub dominated by *Malacothamnus fasciculatus* and annual grasslands. The last known occurrence of this species was in 1995, north of Chatsworth Reservoir.

**Slender-horned spineflower (*Dodecabama leptoceras*).** It is an annual herb that is federally and state-listed as endangered. It occurs in coastal scrub (alluvial fans), chaparral, and cismontane woodlands on sandy soils from the San Fernando Valley to the San Bernardino Valley. It also occurs in the Elsinore area. This species flowers from April to June and can typically be found at elevations from 650 to 2,500 feet.

**Southern Steelhead (*Onorhynchus mykiss irideus*).** This species is federally-listed as endangered. The last known occurrence of this species was along Topanga Creek in 1990.

**Southwestern Willow Flycatcher (*Empidonax traillii extimus*).** This species is a federal/state endangered species. It nests in moist thickets of dense, structurally diverse riparian habitat within southern California.

**Spreading Navarretia (*Navarretia fossalis*).** This is a federally threatened species that is associated with vernal pools and depressions and ditches in areas that once supported vernal pools. Soils supporting this species are usually saline-alkaline in nature and reliably pond water for long durations.

**Western Snowy Plover (*Charadrius alexandrinus nivosus*).** The western snowy plover is a federally threatened species that nests on sandy beaches and dunes by creating a shallow depression as a /nest, using driftwood, rocks, or bushes as cover; nests may also be entirely out in the open.

**Ventura Marsh Milk Vetch (*Asraglus pycnostachyus* var. *lanosisimus*).** The Ventura marsh milk vetch is a state and federal endangered species that historically occurred in back dune habitat, coastal meadows and near coastal salt marshes from Ventura County to Orange County. Today, only one population of Ventura marsh milk-vetch is known to exist near the City of Oxnard, Ventura County, California, all within a 2,854 square feet area (less than 0.6 of an acre). The population occurs on disturbed coastal backdunes on fill material at a closed oil-waste dump site.

## **Appendix D    Noise Data**



File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: Beverly Hills High School  
 Note2: Noise sources: students congregating; traffic; tennis practice  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 14:02:41  
 Elapsed Time: 00:15:01.0  
 Leq: 60.6 dBA  
 SEL: 90.1 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.11 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 14:02:41  
 Elapsed Time: 00:15:01.0  
 Leq: 60.6 dBA  
 SEL: 90.1 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.11 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 50.9 dBA 16-May-2005 14:15:34  
 Max: 78.7 dBA 16-May-2005 14:13:58  
 Peak-1: 97.4 dBF 16-May-2005 14:13:10  
 Peak-2: 96.1 dBA 16-May-2005 14:13:57

Min: 50.9 dBA 16-May-2005 14:15:34  
 Max: 78.7 dBA 16-May-2005 14:13:58  
 Peak-1: 97.4 dBF 16-May-2005 14:13:10  
 Peak-2: 96.1 dBA 16-May-2005 14:13:57

L 1.67 69.9 dBA L 50.00 56.6 dBA  
 L 8.33 62.6 dBA L 66.67 55.5 dBA  
 L 33.33 57.8 dBA L 90.00 53.5 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 2

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

Number Interval Records: 2  
 Number History Records: 21

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 94% Source: INT

File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: Beverly Hilton Hotel  
 Note2: Noise sources: fountain in front of hotel; vehicles driving by  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 14:46:08  
 Elapsed Time: 00:15:00.0  
 Leq: 61.8 dBA  
 SEL: 91.4 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.14 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 14:46:08  
 Elapsed Time: 00:15:00.0  
 Leq: 61.8 dBA  
 SEL: 91.4 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.14 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 60.2 dBA 16-May-2005 14:55:25  
 Max: 71.3 dBA 16-May-2005 14:50:55  
 Peak-1: 94.3 dBF 16-May-2005 15:00:35  
 Peak-2: 89.6 dBA 16-May-2005 14:54:37

Min: 60.2 dBA 16-May-2005 14:55:25  
 Max: 71.3 dBA 16-May-2005 14:50:55  
 Peak-1: 94.3 dBF 16-May-2005 15:00:35  
 Peak-2: 89.6 dBA 16-May-2005 14:54:37

L 1.67 65.1 dBA L 50.00 61.2 dBA  
 L 8.33 63.0 dBA L 66.67 61.0 dBA  
 L 33.33 61.6 dBA L 90.00 60.7 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 0

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

Number Interval Records: 1  
 Number History Records: 18

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 94% Source: INT

File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: Beverly Hills Fire Department (Rexford Drive)  
 Note2: Noise sources: traffic; fire truck entering garage; gate lowering  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 15:21:51  
 Elapsed Time: 00:15:00.0  
 Leq: 64.5 dBA  
 SEL: 94.0 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.27 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 15:21:51  
 Elapsed Time: 00:15:00.0  
 Leq: 64.5 dBA  
 SEL: 94.0 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.27 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 51.5 dBA 16-May-2005 15:34:46  
 Max: 78.4 dBA 16-May-2005 15:22:54  
 Peak-1: 102.2 dBF 16-May-2005 15:23:01  
 Peak-2: 95.3 dBA 16-May-2005 15:22:53

Min: 51.5 dBA 16-May-2005 15:34:46  
 Max: 78.4 dBA 16-May-2005 15:22:54  
 Peak-1: 102.2 dBF 16-May-2005 15:23:01  
 Peak-2: 95.3 dBA 16-May-2005 15:22:53

L 1.67 74.1 dBA L 50.00 60.6 dBA  
 L 8.33 67.8 dBA L 66.67 59.1 dBA  
 L 33.33 62.1 dBA L 90.00 56.2 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 0

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

Number Interval Records: 1  
 Number History Records: 18

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 94% Source: INT

File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: La Ciengega Park  
 Note2: Noise sources: kids playing softball; ambient traffic noise  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 15:58:04  
 Elapsed Time: 00:15:00.0  
 Leq: 63.3 dBA  
 SEL: 92.9 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.21 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 15:58:04  
 Elapsed Time: 00:15:00.0  
 Leq: 63.3 dBA  
 SEL: 92.9 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.21 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 55.8 dBA 16-May-2005 16:10:50  
 Max: 74.6 dBA 16-May-2005 16:09:05  
 Peak-1: 98.9 dBF 16-May-2005 15:59:19  
 Peak-2: 90.8 dBA 16-May-2005 16:05:37

Min: 55.8 dBA 16-May-2005 16:10:50  
 Max: 74.6 dBA 16-May-2005 16:09:05  
 Peak-1: 98.9 dBF 16-May-2005 15:59:19  
 Peak-2: 90.8 dBA 16-May-2005 16:05:37

L 1.67 70.8 dBA L 50.00 61.4 dBA  
 L 8.33 66.2 dBA L 66.67 60.4 dBA  
 L 33.33 62.6 dBA L 90.00 58.7 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 0

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

Number Interval Records: 1  
 Number History Records: 18

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 93% Source: INT

File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: MFR along Olympic Boulevard  
 Note2: Noise sources: traffic on Olympic Boulevard  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 16:34:44  
 Elapsed Time: 00:15:00.0  
 Leq: 70.2 dBA  
 SEL: 99.7 dBA  
 Dose: 0.00 %  
 Proj. Dose: 1.03 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 16:34:44  
 Elapsed Time: 00:15:00.0  
 Leq: 70.2 dBA  
 SEL: 99.7 dBA  
 Dose: 0.00 %  
 Proj. Dose: 1.03 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 54.7 dBA 16-May-2005 16:35:20  
 Max: 82.8 dBA 16-May-2005 16:47:28  
 Peak-1: 111.6 dBF 16-May-2005 16:40:27  
 Peak-2: 103.1 dBA 16-May-2005 16:47:08

Min: 54.7 dBA 16-May-2005 16:35:20  
 Max: 82.8 dBA 16-May-2005 16:47:28  
 Peak-1: 111.6 dBF 16-May-2005 16:40:27  
 Peak-2: 103.1 dBA 16-May-2005 16:47:08

L 1.67 75.9 dBA L 50.00 69.2 dBA  
 L 8.33 73.2 dBA L 66.67 67.3 dBA  
 L 33.33 70.5 dBA L 90.00 61.9 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 0

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

Number Interval Records: 1  
 Number History Records: 18

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 94% Source: INT

File Translated: P:\Projects - All Users\10600-00+\10600-01 Beverly Hills General Plan Update\TBR\TBR Sections\Noise Data\  
 Model/Serial Number: 814 / A0174  
 Firmware/Software Revs: 1.026 / 1.07  
 Name: EIP Associates  
 Descr1: 12301 Wilshire Blvd. Suite 430  
 Descr2: Los Angeles, CA 90025  
 Setup/Setup Descr: 15minute.slm / 15 Minute  
 Location: Beverly Hills  
 Note1: SFR on Elevado Avenue  
 Note2: Noise sources: traffic on Elevado Avenue  
 Octave Filters: None

## Overall Measurement

Start Time: 16-May-2005 17:09:12  
 Elapsed Time: 00:15:00.0  
 Leq: 62.1 dBA  
 SEL: 91.7 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.16 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

## Current Measurement

Start Time: 16-May-2005 17:09:12  
 Elapsed Time: 00:15:00.0  
 Leq: 62.1 dBA  
 SEL: 91.7 dBA  
 Dose: 0.00 %  
 Proj. Dose: 0.16 %  
 Threshold: 0 dB  
 Criterion: 90 dB  
 Exchange Rate: 3 dB

Min: 47.8 dBA 16-May-2005 17:22:22  
 Max: 72.1 dBA 16-May-2005 17:21:31  
 Peak-1: 101.8 dBF 16-May-2005 17:18:43  
 Peak-2: 88.0 dBA 16-May-2005 17:16:51

Min: 47.8 dBA 16-May-2005 17:22:22  
 Max: 72.1 dBA 16-May-2005 17:21:31  
 Peak-1: 101.8 dBF 16-May-2005 17:18:43  
 Peak-2: 88.0 dBA 16-May-2005 17:16:51

L 1.67 68.8 dBA L 50.00 60.0 dBA  
 L 8.33 66.4 dBA L 66.67 56.8 dBA  
 L 33.33 62.4 dBA L 90.00 51.3 dBA

Detector: Slow

Weighting: A

SPL Exceedance Level 1: 115.00 Exceeded: 0 times  
 SPL Exceedance level 2: 120 Exceeded: 0 times  
 Peak-1 Exceedance Level: 140 Exceeded: 0 times  
 Peak-2 Exceedance Level: 140 Exceeded: 0 times  
 Hysteresis: 2  
 Overloaded: 0 time(s)  
 Paused: 0 times for 00:00:00.0

Calibrated: 11-Aug-2004 12:42:52  
 Checked: 16-May-2005 13:58:32  
 Calibrator LD 0504  
 Cal Records Count: 0

Offset: 9.0 dB  
 Level: 113.90 dB  
 Level: 114.0 dB

Interval Records: Enabled  
 History Records: Disabled

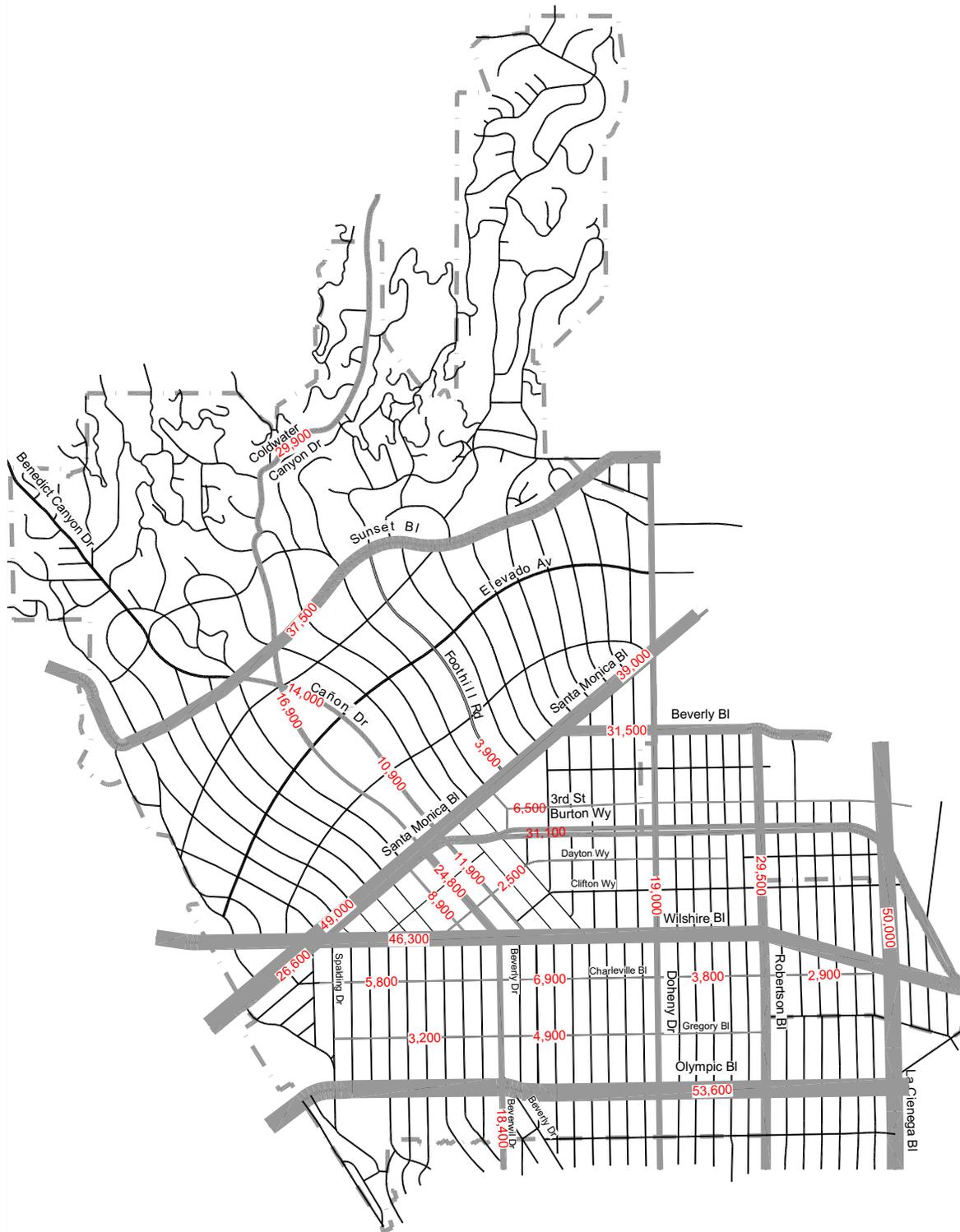
Number Interval Records: 1  
 Number History Records: 18

814 Memory: 524288 bytes  
 Free Memory: 460549 bytes 87.84% free

Battery Level: 94% Source: INT

**LEGEND:**

-  Volume of 25000 Vehicles Daily
-  City of Beverly Hills Limits



**FIGURE 2**  
**AVERAGE DAILY TRAFFIC VOLUMES ON CITY STREETS**

## TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 10600-01  
Project Name: Beverly Hills TBR

### Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.  
Source of Traffic Volumes: X  
Community Noise Descriptor: L<sub>dn</sub>: \_\_\_\_\_ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		Distance from Centerline of Roadway				
						Medium Trucks	Heavy Trucks	CNEL at 100 Feet	Distance to Contour			
								70 CNEL	65 CNEL	60 CNEL	55 CNEL	55 CNEL
Coldwater Canyon Dr., north of Sunset Blvd.	2	0	29,900	25	0	1.8%	0.7%	62.3	-	54	171	542
Beverly Drive, b/t Sunset Blvd. & Santa Monica Blvd.	4	0	16,900	25	0	1.8%	0.7%	59.9	-	-	98	311
Beverly Drive, b/t Santa Monica Blvd. & Wilshire Blvd.	4	10	24,800	35	0	1.8%	0.7%	64.3	-	84	266	842
Beverwil Drive, south of Olympic Blvd.	4	0	18,400	25	0	1.8%	0.7%	60.3	-	-	107	338
Sunset Boulevard	4	30	37,500	35	0	1.8%	0.7%	66.2	-	131	415	1,312
Canon Dr., b/t Sunset Blvd. & Elevado Ave.	2	0	14,000	25	0	1.8%	0.7%	59.0	-	-	80	254
Canon Dr., b/t Elevado Ave. & Santa Monica Blvd.	2	0	10,900	25	0	1.8%	0.7%	58.0	-	-	62	197
Canon Dr., b/t Santa Monica Blvd. & Wilshire Blvd.	4	0	11,900	35	0	1.8%	0.7%	61.0	-	-	126	400
Foothill Rd., b/t Sunset Blvd. & Santa Monica Blvd.	2	0	3,900	25	0	1.8%	0.7%	53.5	-	-	-	71
Santa Monica Blvd., south of Wilshire Blvd.	5	0	26,600	35	0	1.8%	0.7%	64.6	-	91	286	905
Santa Monica Blvd., b/t Wilshire Blvd. & Beverly Blvd.	4	12	49,000	35	0	1.8%	0.7%	67.2	53	167	527	1,668
Santa Monica Blvd., north of Beverly Blvd.	4	12	39,000	35	0	1.8%	0.7%	66.2	-	133	420	1,327
Beverly Blvd., east of Santa Monica Blvd.	4	12	31,500	35	0	1.8%	0.7%	65.3	-	107	339	1,072
Wilshire Blvd.	6	12	46,300	35	0	1.8%	0.7%	67.1	-	164	518	1,640
West 3rd Street	2	0	6,500	30	0	1.8%	0.7%	57.3	-	-	53	169
Burton Way	4	48	31,100	30	0	1.8%	0.7%	64.5	-	89	281	888
Dayton Way	2	0	2,500	25	0	1.8%	0.7%	51.6	-	-	-	45
Doheny Drive	4	0	19,000	35	0	1.8%	0.7%	63.0	-	64	202	638
Robertson Blvd.	4	0	29,500	35	0	1.8%	0.7%	65.0	-	99	313	991
La Cienega Blvd.	6	10	50,000	35	0	1.8%	0.7%	67.5	-	176	558	1,763
Charleville Blvd., b/t Santa Monica Blvd. & Beverly Dr.	2	0	5,800	30	0	1.8%	0.7%	56.8	-	-	48	150
Charleville Blvd., b/t Beverly Dr. & Doheny Dr.	2	0	6,900	30	0	1.8%	0.7%	57.5	-	-	57	179
Charleville Blvd., b/t Doheny Dr. & Robertson Blvd.	2	0	3,800	30	0	1.8%	0.7%	54.9	-	-	-	99
Charleville Blvd., b/t Robertson Blvd. & La Cienega Blvd.	2	0	2,900	30	0	1.8%	0.7%	53.8	-	-	-	75
Gregory Blvd., b/t Spalding Dr. & Beverly Dr.	2	0	3,200	30	0	1.8%	0.7%	54.2	-	-	-	83
Gregory Blvd., east of Beverly Dr.	2	0	4,900	30	0	1.8%	0.7%	56.0	-	-	40	127
Olympic Blvd.	6	10	53,600	35	0	1.8%	0.7%	67.8	-	189	598	1,890

<sup>1</sup> Distance is from the centerline of the roadway segment to the receptor location.  
"-" = contour is located within the roadway right-of-way.