

DIVISION 4. COMMUNITY DESIGN

CHAPTER 1. CIRCULATION

Section EV4.0101 Introduction

- (a) A critical element of the Specific Plan is the provision of an efficient and comprehensive circulation plan. In order for development to occur in an orderly and systematic manner, access into the study area must be improved and the circulation system within the study area must be adequate to accommodate traffic volumes generated by the project.
- (b) The intent of the plan, in terms of circulation, is to provide an effective circulation system, establish a streetscape design that will enhance the character of the East Valley, and maintain consistency with current and future transportation planning efforts at the state, regional and local levels.
- (c) While most transportation in and around the study area is by private automobile, special consideration has been given to public transit, pedestrian access, and recreational trails.
- (d) Figure 4-1 illustrates the backbone circulation system proposed for the East Valley Corridor. The circulation system is adopted as a portion of the General Plans of the County of San Bernardino, the City of Loma Linda, and the City of Redlands.

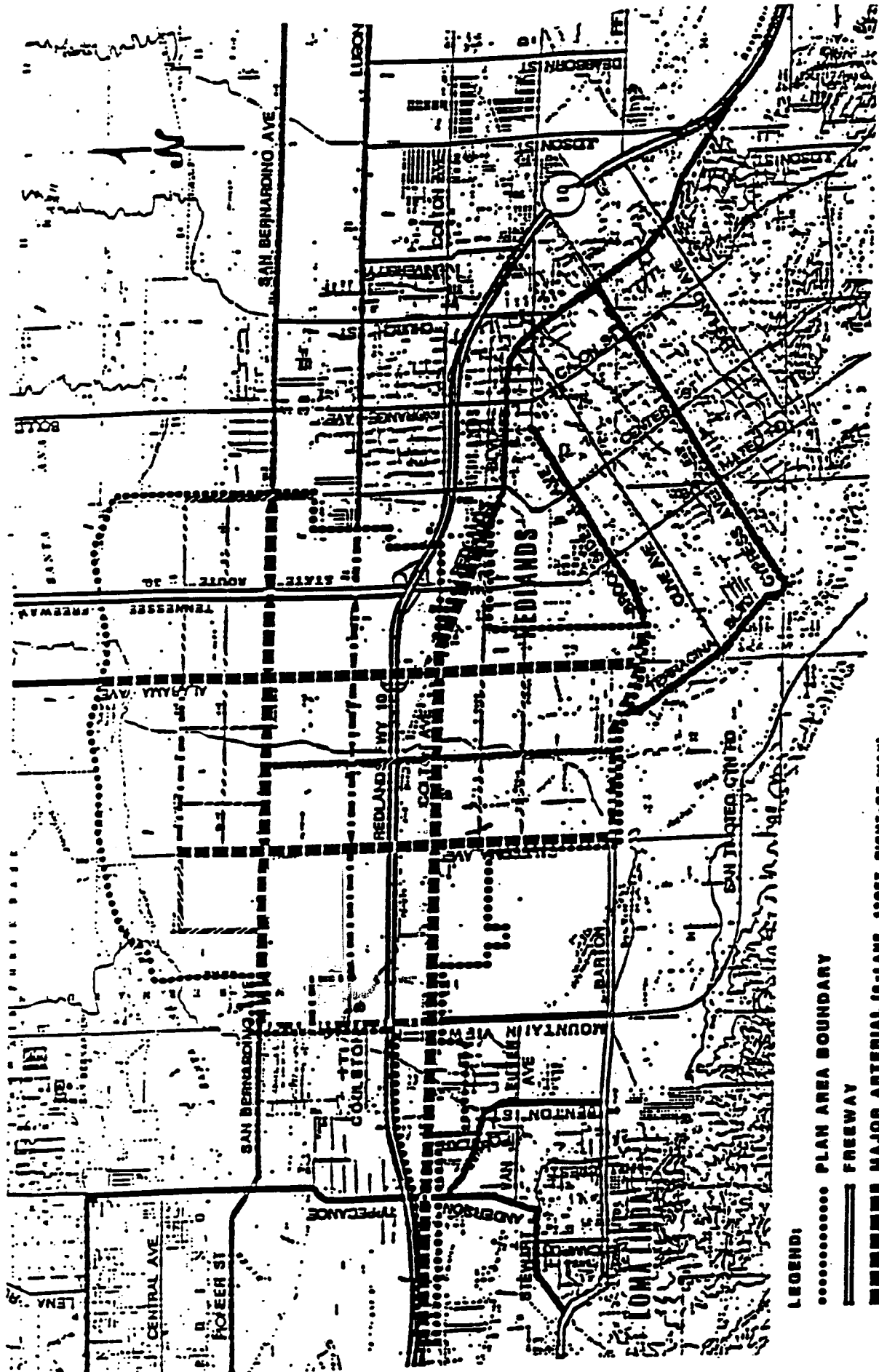


FIGURE 4-1
EAST VALLEY CORRIDOR SPECIFIC PLAN
CIRCULATION PLAN

- LEGEND:**
- PLAN AREA BOUNDARY
 - FREEWAY
 - ==== MAJOR ARTERIAL (6-LANE, 150FT. RIGHT-OF-WAY)
 - ==== MAJOR HIGHWAY (4-LANE, 100FT. RIGHT-OF-WAY)
 - SECONDARY HIGHWAY (4-LANE, 66FT. RIGHT-OF-WAY)
 - COLLECTOR (2-LANE, 66FT. RIGHT-OF-WAY)

Section EV4.0105 Circulation Plan

- (a) The major traffic routes through the study area are Interstate 10 (the San Bernardino Freeway) and State Route 30 (the Tennessee Freeway). The Specific Plan provides for a network of six lane major arterial and four lane major and secondary highways in conjunction with collector streets to be constructed or improved within the area. This proposed circulation system will provide additional regional access to the area as well as build a backbone system for the proposed development.
- (b) The following roadways shall be designated as major arterials:
- California Street from Palmetto Avenue to Barton Road
 - Alabama Street from the Santa Ana River to Barton Road
 - Redlands Boulevard from the western plan boundary to Park Avenue
 - San Bernardino Avenue from Mountain View Avenue to Texas Street
- (c) The following roadways shall be designated as major highways:
- Palmetto Avenue from California Street to Alabama
 - Lugonia Avenue from Mountain View Avenue to the eastern plan area Boundary, except the segment from California Street to the west side of the 210 Freeway overpass at Citrus Plaza.
 - Barton Road from California Street to Kansas Street
 - Mountain View Avenue from Redlands Boulevard to San Bernardino Avenue
 - Anderson Street from Redlands Boulevard to I-10
- (d) The following roadways shall be designated as secondary highways:
- Nevada Street from San Bernardino Avenue to Barton Road
 - Texas Street from Palmetto Avenue to southern plan area boundary
 - Palmetto Avenue from Lugonia Avenue to California Street
 - Lugonia Avenue between California Street to the west side of the 210 Freeway overpass at Citrus Plaza.
- (e) The following roadways shall be designated as collectors:
- Olive Avenue from California Street to Alabama Street
 - Pioneer Avenue from Alabama Street to Texas Street
 - Collector connecting Palmetto Avenue and San Bernardino Avenue, west of Nevada Street
 - Collector connecting Palmetto Avenue and San Bernardino Avenue, east of Nevada Street
 - Park Avenue from California Street to Redlands Boulevard
 - Citrus Avenue from California Street to Kansas Street
- (f) In instances where roadways are designated on the Circulation Plan where

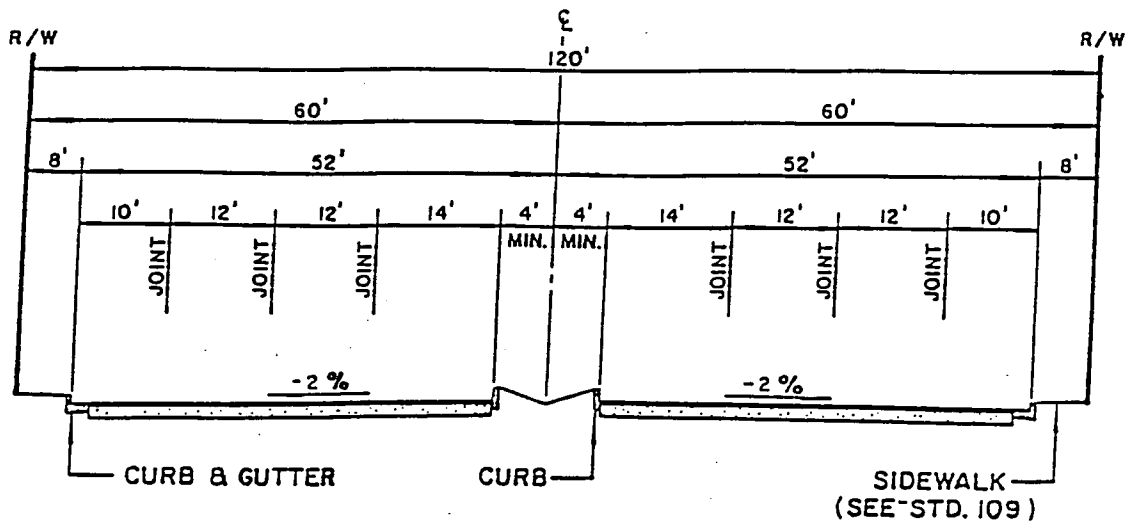
no road currently exists, the location and design standards, including the grade and alignment, will be determined by the reviewing authority at the time of submittal of design plans for the individual project.

Section EV4.0110 Road Standards

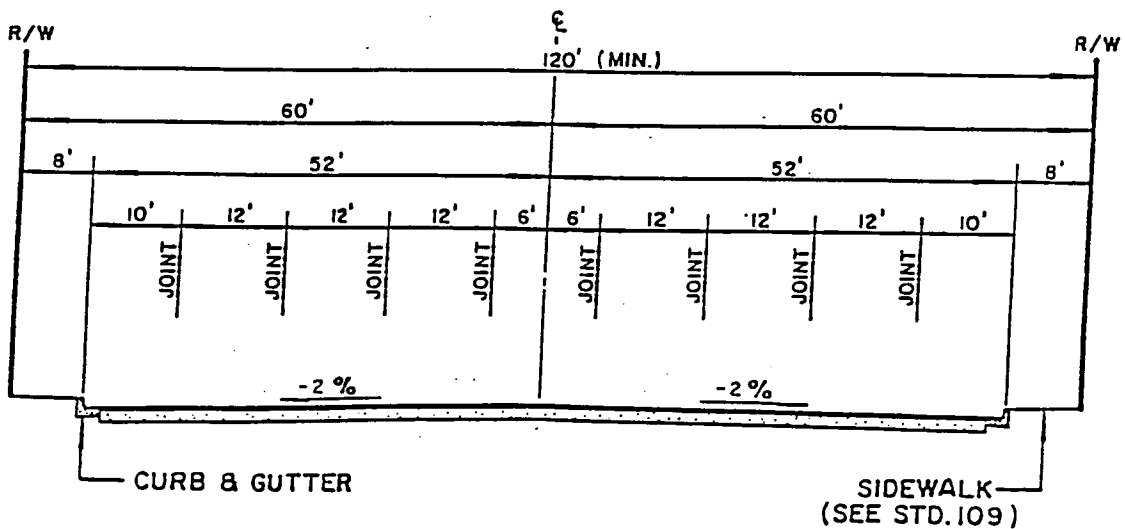
- (a) Standards and specifications for transportation facilities and all work within the road rights-of-way shall conform to the County's Standards and Specifications Manual unless specifically modified herein. Typical sections of roads within the planning area are shown in Figures 4-2 through 4-6.
- (b) Right-of-way shall be required as shown on the Specific Plan Circulation map except in the following instances:
 - (1) On California Street between Palmetto Avenue and Almond Avenue, the existing fan palm row shall be placed in a 22-foot landscaped median. To accommodate this median, the road right-of-way shall be 126 feet instead of 120 feet on this stretch.
 - (2) On Palmetto Avenue between California Street and the existing alignment of Nevada Street, the existing double row of fan palms will be placed in a 34-foot landscaped median. To accommodate this median, the road right-of-way shall be 106 feet instead of 104 feet on this stretch.
- (c) In order to accommodate medians and parkways landscaped with fan palm rows, sidewalks shall be placed outside of the right-of-way on the following streets. In these instances, the reviewing agency shall be granted a sidewalk easement for maintenance.

Redlands Boulevard
San Bernardino Avenue
Alabama Street
Palmetto Avenue between California Street and Nevada Street
- (d) Access control standards shall be as follows:
 - (1) No direct driveway access from individual residences shall be permitted onto major arterials, major highways or secondary highways.
 - (2) Intersections shall be placed a minimum of 400 feet centerline to centerline from freeway on and off ramps.

- (3) Offset intersections shall be a minimum of 300 feet centerline to centerline.
 - (4) Access shall be controlled on major arterials and major highways to minimize curb cuts and facilitate the flow of traffic. Any new development or subdivision of land adjacent to these roadways shall be required to dedicate vehicular access rights, except where access points are shown on an approved Site Plan. Shared access and parking, and use of side streets for access, shall be required whenever possible.
 - (5) All development proposals shall be designed so as to provide for a free flow of vehicles in and out of the site as well as for easy access to the various activity areas within each site.
 - (6) Placement of access points into each site shall minimize interference with the off-site circulation system.
 - (7) Where medians are located in the street fronting the site, driveways should be provided where median breaks occur.
 - (8) Adequate provisions shall be made for emergency vehicle access, with a minimum of two (2) points of ingress and egress provided to each site.
- (e) Intersection design shall conform to the following standards:
- (1) Intersections less than 80 degrees shall not be permitted without special approval from the reviewing agency. The 90-degree angle is preferable.
 - (2) If offset streets are to be continuous, they shall be curved to approach the intersection so as to effect a right-angle alignment.
 - (3) At intersections where additional traffic lanes are indicated by traffic analysis, provision shall be made for requiring additional right-of-way and curb width within 300 feet of the intersection.



TYPICAL SECTION
WITH RAISED MEDIAN



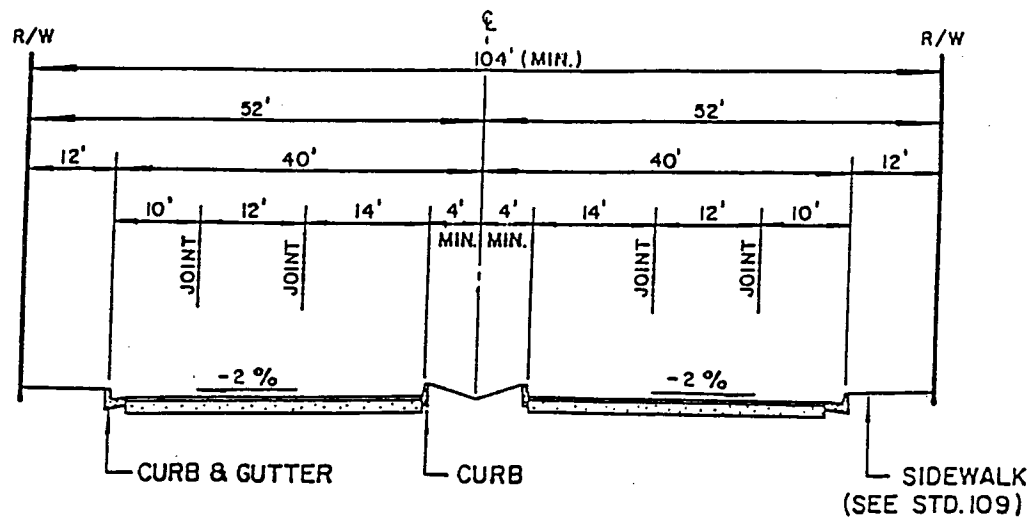
TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE

NOTES:

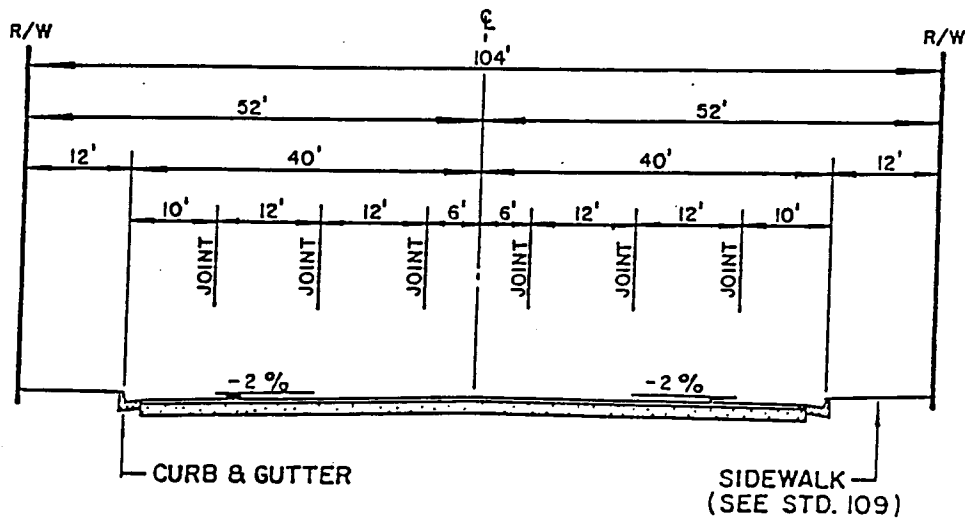
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

FIGURE 4-2

MAJOR ARTERIAL



TYPICAL SECTION
WITH RAISED MEDIAN



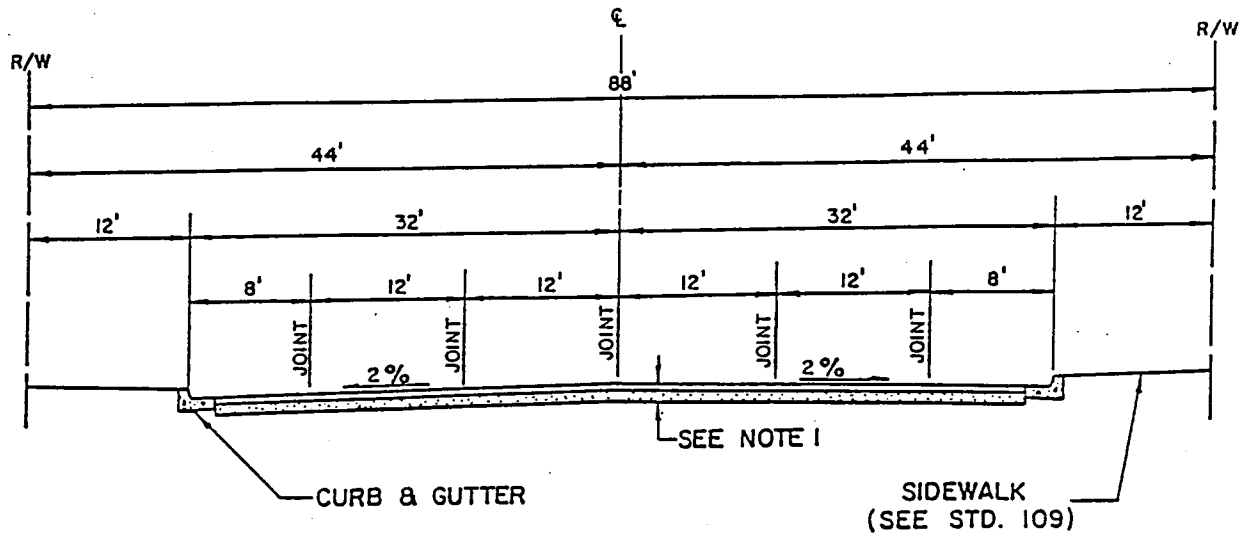
TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

FIGURE 4-3

MAJOR HIGHWAY



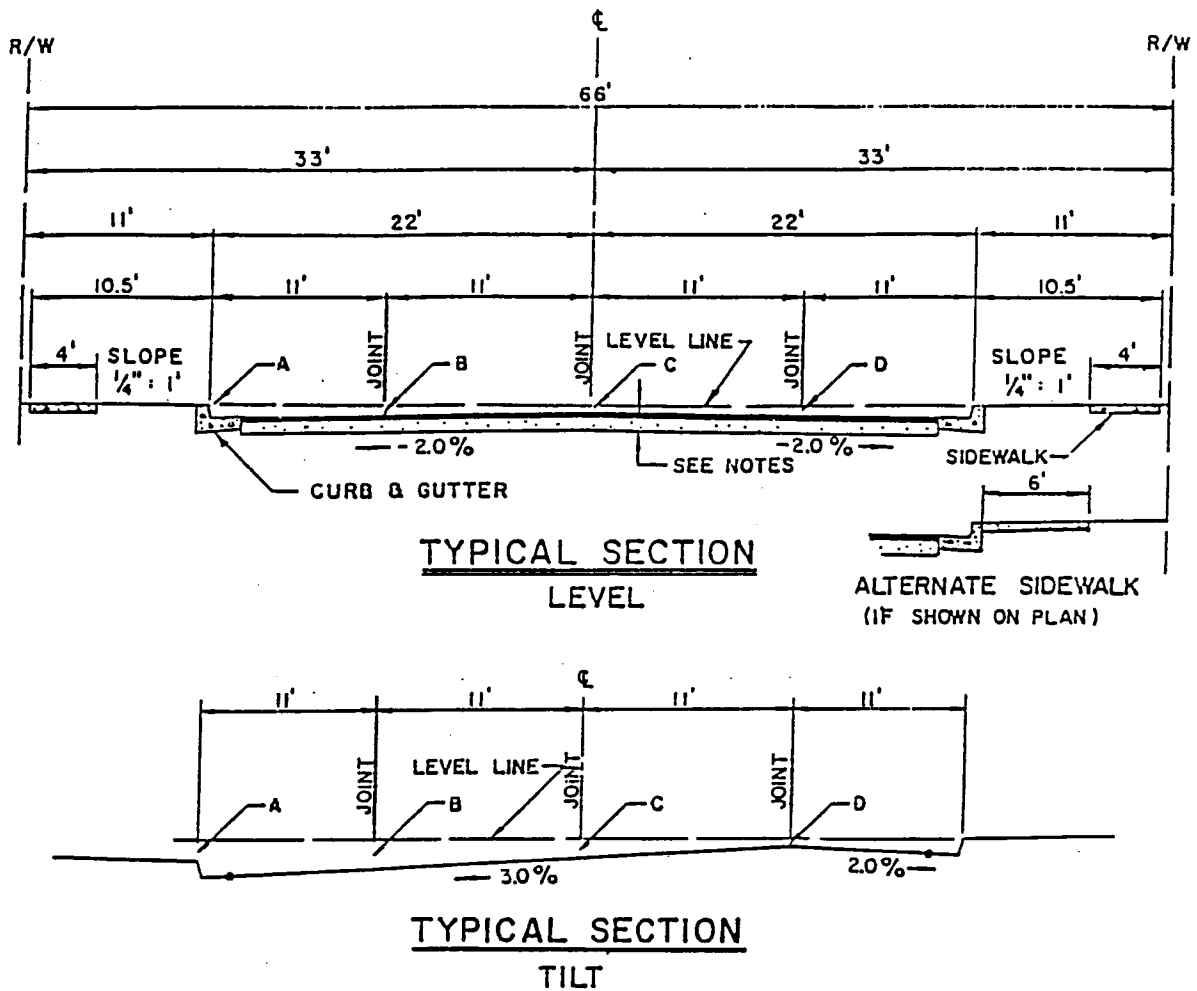
TYPICAL SECTION

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. 8' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

FIGURE 4-4

SECONDARY HIGHWAY

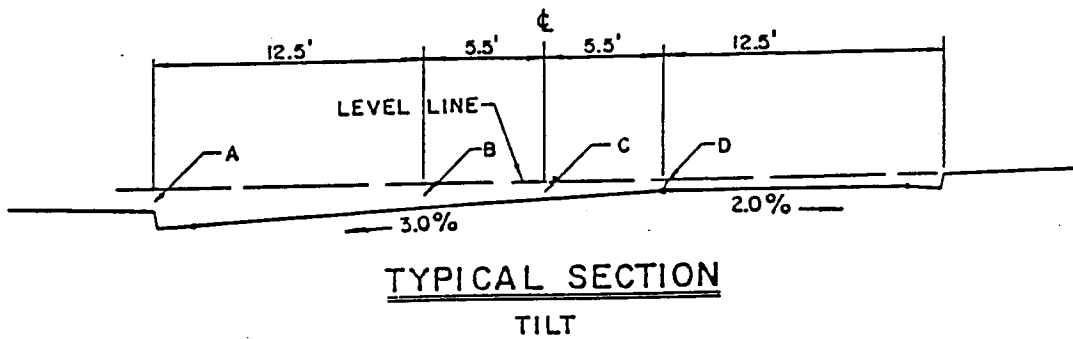
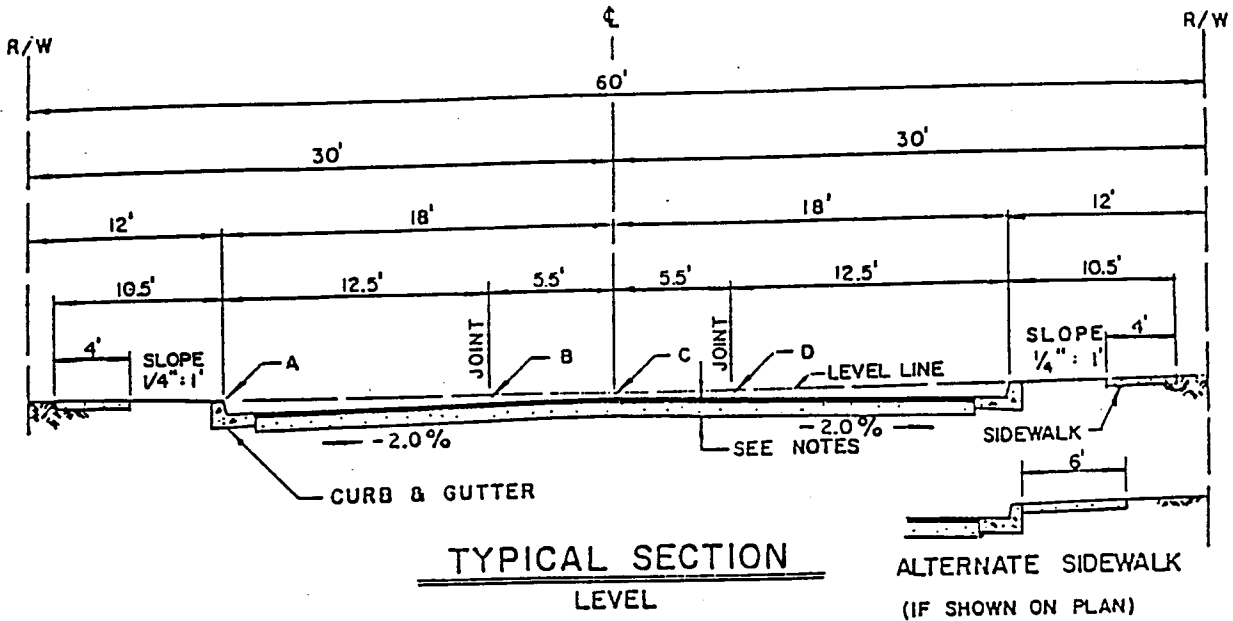


		A	B	C	D	
8" CURB	LEVEL	0.00'	0.36'	0.14'	0.36'	
	TILT	0.76'	1.02'	0.69'	0.36'	
6" CURB	LEVEL	0.00'	0.19'	(0.03)	0.19'	() INDICATES ABOVE LEVEL LINE
	TILT	0.76'	0.85'	0.52'	0.19'	

NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS.

FIGURE 4-5
COLLECTOR STREET



		A	B	C	D
8" CURB	LEVEL	0.00'	0.33'	0.22'	0.33'
	TILT	0.44'	0.66'	0.50'	0.33'
6" CURB	LEVEL	0.00	0.16'	0.05'	0.16'
	TILT	0.44'	0.49'	0.33'	0.16'

NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS
4. WHEN PREPARING SUBGRADE FOR PAVING, CENTERLINE CROWN ON THE "LEVEL SECTION" SHALL BE RELOCATED EITHER LEFT OR RIGHT 0.50' TO MATCH CROWN BREAK IN PAVING MACHINE.

FIGURE 4-6

LOCAL STREET

- (f) The following streets shall have landscaped center medians:
 - Palmetto Avenue
 - California Street, from Barton Road to Palmetto Avenue
 - Redlands Boulevard, from California Street to New York Street
 - Barton Road, from Terracina Boulevard to Kansas Street
- (g) No parking, except for emergency parking, shall be allowed on any street which has four or more lanes, (includes major arterials, major highways, and secondary highways).
- (h) Cul-de-sac standards shall be as follows:
 - (1) Cul-de-sacs shall have a minimum paved radius of 40 feet.
 - (2) Length of cul-de-sac shall not exceed 600 feet.
- (i) Private streets shall be constructed in accordance with approved Planned Development Standards.

Section EV4.0115 Special Landscaped Streets

(a) Introduction

The dominant design element for the East Valley Corridor will consist of unified streetscape themes to be established throughout the planning area, incorporating consistency of setbacks, street planting, berming, walls and sidewalks. In order to establish this consistency, major arterials within the planning area have been designated as Special Landscaped Streets, with specific design guidelines developed for each one.

A key element of the streetscape design, providing a dramatic and recognizable image for the area, will be a continuation of the existing grid pattern of Washingtonia Robusta palms (Mexican fan palms), both north and south of Interstate 10. Understory plantings of canopy type street trees, shrubs and groundcover will provide shade, color and a more human scale to the streetscape. The landscape design and plant palette for each major street is intended to be consistent throughout the planning area.

Properties which abut any of the streets listed below must landscape the area adjacent to the roadway as provided in Sections EV4.0115 (b) through (k). The only improvements which may encroach into this landscaped area are driveway entrances, sidewalks, planters, fences or walls not to exceed three and a half (3-1/2) feet in height. Parking areas adjacent to roadways are subject to the landscape requirements of Section EV4.02S0.

Specific design and or plant materials may be modified at the discretion of the approving agency when there is a conflict with the location of public utilities. Development applications requesting a deviation from specific design standards or plant materials shall clearly identify what conflict exists with public utilities, what specific standards apply, and how the conflict will be resolved. The approving agency may modify adopted design or plant material requirements when a demonstrated conflict with public utilities exists that cannot be resolved without deviating from adopted standards.

Special Landscaped Streets within the East Valley Corridor area include the following:

- Redlands Boulevard (see Section EV4.0115(b))
- San Bernardino Avenue (see Section EV4.0115(c))
- Alabama Street (see Section EV4.0115(d))
- California Street (see Section EV4.0115(e))
- Palmetto Avenue, between California and Alabama Streets (see Section EV4.0115(f))
- Lugonia Avenue (see Section EV4.0115(g))
- Barton Road (see Section EV4.0115(h))
- Mountain View Avenue (see Section EV4.0115(i))

(b) REDLANDS BOULEVARD

Redlands Boulevard, designated as a major arterial, extends the length of the planning area south of and parallel to Interstate 10. Land use designations adjacent to Redlands Boulevard include General Commercial, Commercial Industrial and some Residential. Much of the property adjacent to Redlands Boulevard is already developed with commercial and light industrial uses. Existing landscape treatments on this street include parkway planting with meandering sidewalks in Loma Linda, and street trees with a median established in portions of Redlands. The intent of the landscape guidelines on Redlands Boulevard is to recognize and upgrade existing development, and to extend and unify existing landscape elements.

Setbacks

Building setback line (from property line) 25 feet. Parking setback line (from property line) 15 feet.

Sidewalks

Meandering sidewalks, six (6') foot width, minimum of three (3) feet from back of curb, per Section EV4.0130 (a) and (c).

Groundcover Within Public Right-of Way

Turf

Groundplane

Berms or other screening required where parking areas are visible from right-of-way.

Street Trees

Pinus canariensis (Canary Island Pine)
Liquidamber styraciflua

Trees to be randomly spaced to provide varied streetscape with view windows, at the equivalent of one (1) tree per thirty (30) linear feet.

Median (In Redlands only)

Crape myrtle and Erythea armata (palms) with shrubs and groundcover plantings.

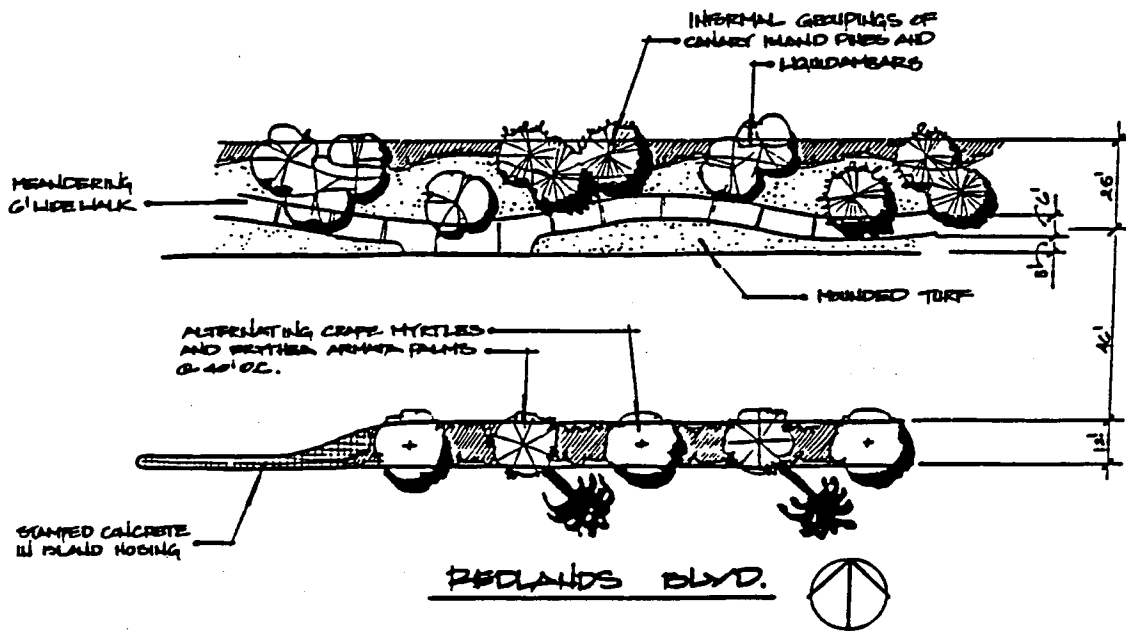
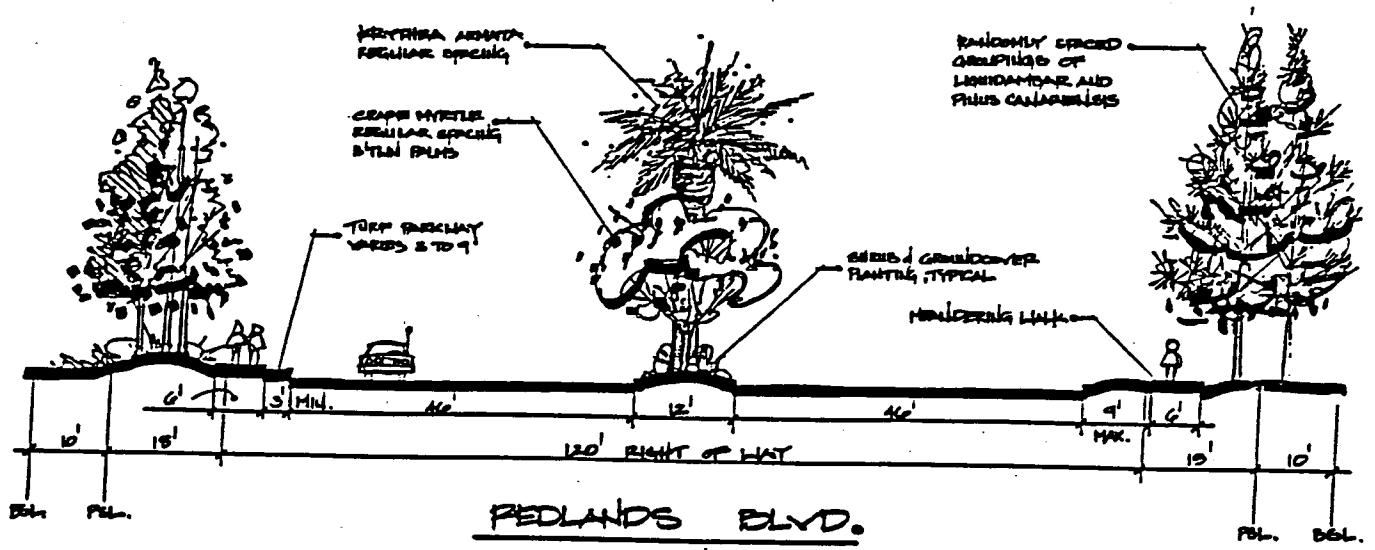


FIGURE 4-7

(c) SAN BERNARDINO AVENUE

San Bernardino Avenue is designated as a major arterial and is a major east-west thoroughfare connecting the cities of Redlands and San Bernardino. The predominant designated land use adjacent to this street is Special Development, with some Regional and General Commercial adjacent to the Tennessee freeway. Most of the area around San Bernardino Avenue is presently undeveloped, with orange groves and field crops the major uses in this area. The intent of the landscape guidelines for San Bernardino Avenue is to extend the palm row landscape element, enhance the identity of the East Valley Corridor on a major roadway, and create an aesthetic buffer between the street and planned commercial and industrial uses.

Setbacks

Building setback line (from property line) 30 feet. Parking setback line (from property line) 15 feet.

Sidewalk

Six (6') foot straight sidewalk, eight (8') feet from back of curb.

Groundplane

Berms or other screening required adjacent to parking areas.

Groundcover Within Public Right-of-Way

Turf

Street Trees

New planting of single row of *Washingtonia robusta* on each side of roadway between curb and sidewalk, planted forty (40') feet on center. Camphor trees (*Cinnamomum camphora*) planted in landscaped setback area on regular spacing, in triangular pattern with palm rows. Salvage and relocate existing mature palms as roadway is widened.

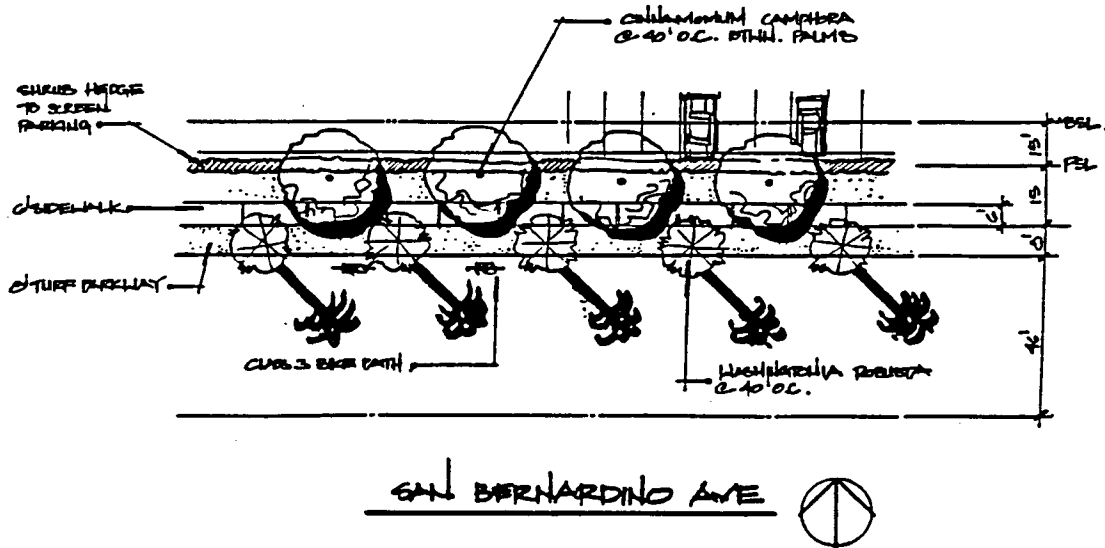
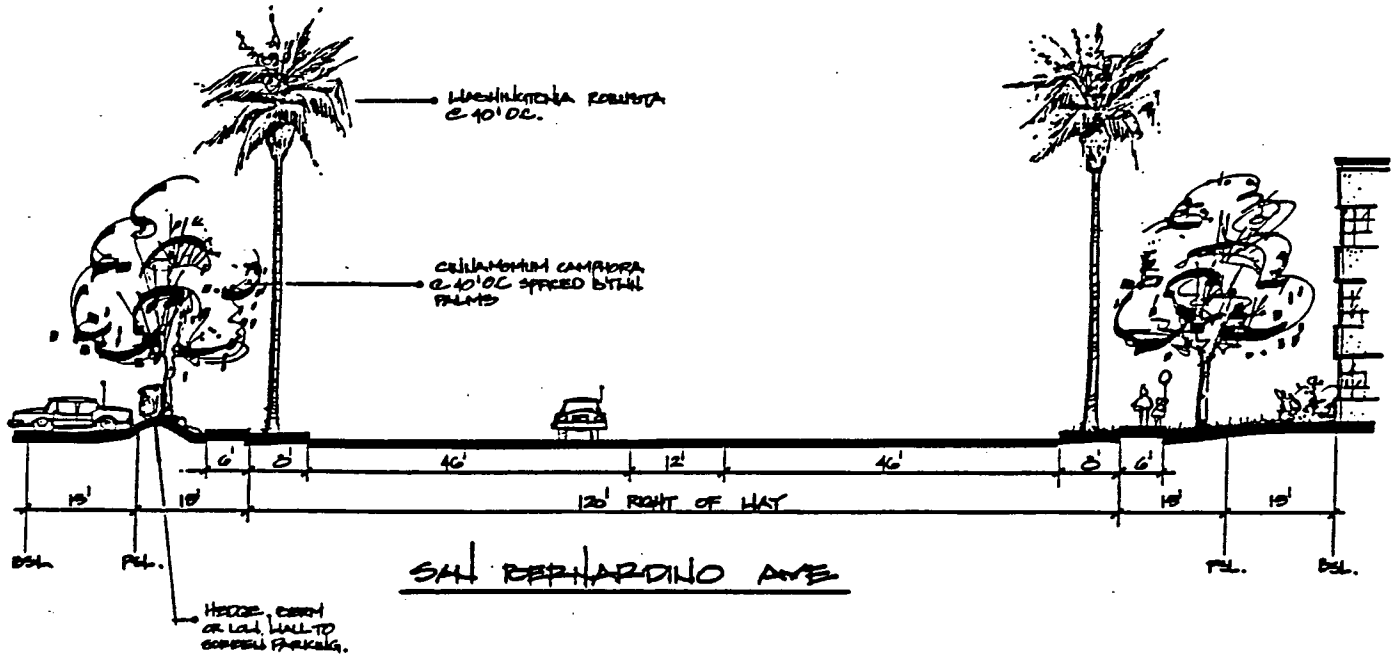


FIGURE 4-8

(d) ALABAMA STREET

Alabama Street, which parallels the Tennessee freeway to the west, is designated as a major arterial. Alabama connects Redlands to the community of Highland, and serves as the only arterial access into this portion of the planning area from the north. The existing crossing of Alabama over the Santa Ana River Wash is a causeway which is subject to inundation and washing out. The Circulation Plan calls for construction of a bridge at this location, to make this crossing all-weather.

Land use designations along Alabama include a wide mix of uses from north to south, including Commercial, Industrial, Planned Development, Multiple Residential, and Administrative/ Professional. The portion of Alabama south of Lugonia is already developed with a variety of commercial uses, while the northern portion is agricultural. The developed portion is partially landscaped with street trees (generally palm varieties) and turf.

Building setbacks already established in the developed portion are relatively narrow, while the opportunity to create a wider, more spacious landscaped area exists north of Interstate 10.

The intent of the landscape guidelines for Alabama Street is to create a unified appearance along the street throughout the planning area despite varying land uses, while recognizing existing development and building on established landscape treatment.

Setbacks

Building setback line (from property line) 30 feet. Parking setback line (from property line) 15 feet south of I-10, 30 feet north of I-10.

Sidewalks

Six (6') foot sidewalks behind palm planting area.

Groundplane

Berms or other screening required where parking areas are visible from right-of-way.

Groundcover Within Public Right-of-Way

Turf or groundcover.

Street Trees

Single row of *Washingtonia robusta*, planted forty (40') feet on center; understory of *Platanus acerifolia*, regularly spaced in triangular pattern with palms.

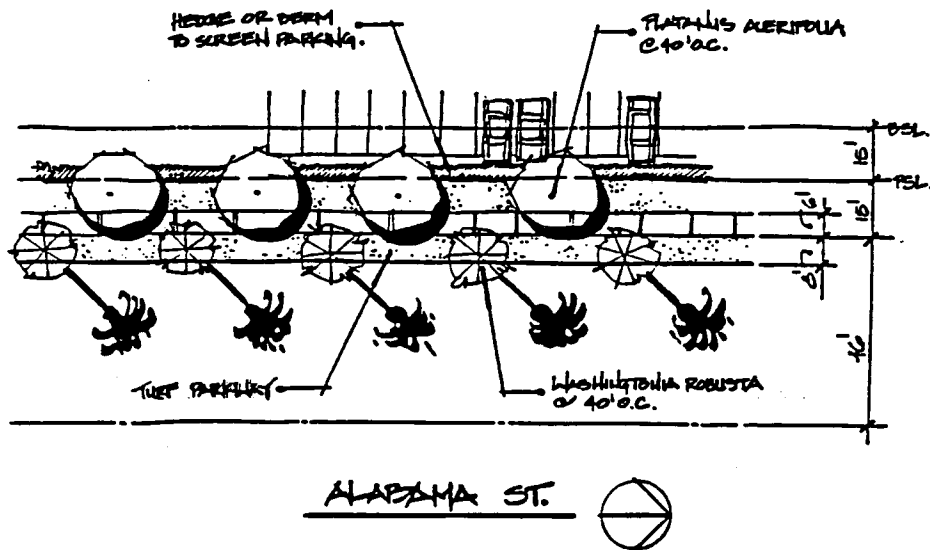
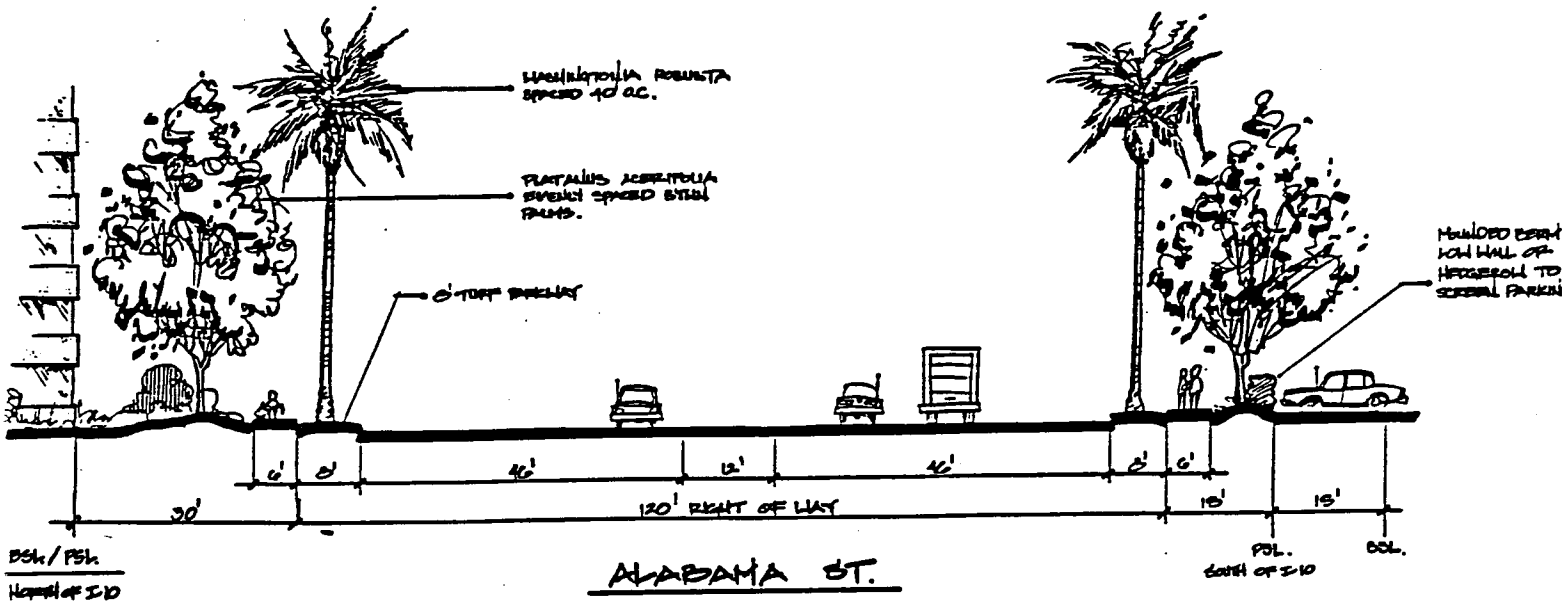


FIGURE 4-9

(e) CALIFORNIA STREET

California Street is designated as a major arterial and provides a major gateway into the planning area from Interstate 10, both to the north and the south. North of I-10, the predominant land use designation is Special Development and the area is undeveloped above Lugonia. South of I-10, land use designations adjacent to California Street include multiple family residential and commercial, and portions of the area are already developed. The landscape guidelines for California Street emphasize the importance of this roadway in establishing the identity of the East Valley Corridor, due to its high visibility from the freeway, anticipated traffic volume, planned link to a regional trail system, and central location. Because of these factors, a wide landscaped median and parkways are planned for the portion of California north of I-10, where no existing development will be affected. South of I-10, the median will be reduced in size and the trail system will be routed onto Citrus Avenue.

Setbacks

Building setback line (from property line) 30* feet. Parking setback line (from property line) 30* feet.

* Where trail system is not adjacent to roadway, setbacks may be a minimum of 25 feet but must average 30 feet.

Sidewalks

Six (6') foot sidewalks adjacent to curb.

Bike Trail

Class I bike path on east side of California Street between Palmetto Avenue and Redlands Boulevard (per Section EV4.0150).

Groundplane

Berms or other screening required adjacent to parking areas. Berms encouraged on parkways.

Groundcover Within Public Right-of-Way

Turf

Street Trees

New planting of single row of *Washingtonia robusta* on each side of roadway adjacent to curb, planted forty (40') feet on center. Camphor trees (*Cinnamomum camphora*) planted in landscaped setback area on regular spacing, in triangular pattern with palm rows.

Median

North of Interstate 10, phase median into roadway north of Lugonia Avenue. Between Almond Avenue and Palmetto Avenue, retain existing row of *Washingtonia robusta* in median. Use occasional understory groupings of crape myrtle. Use river rock in median noses.

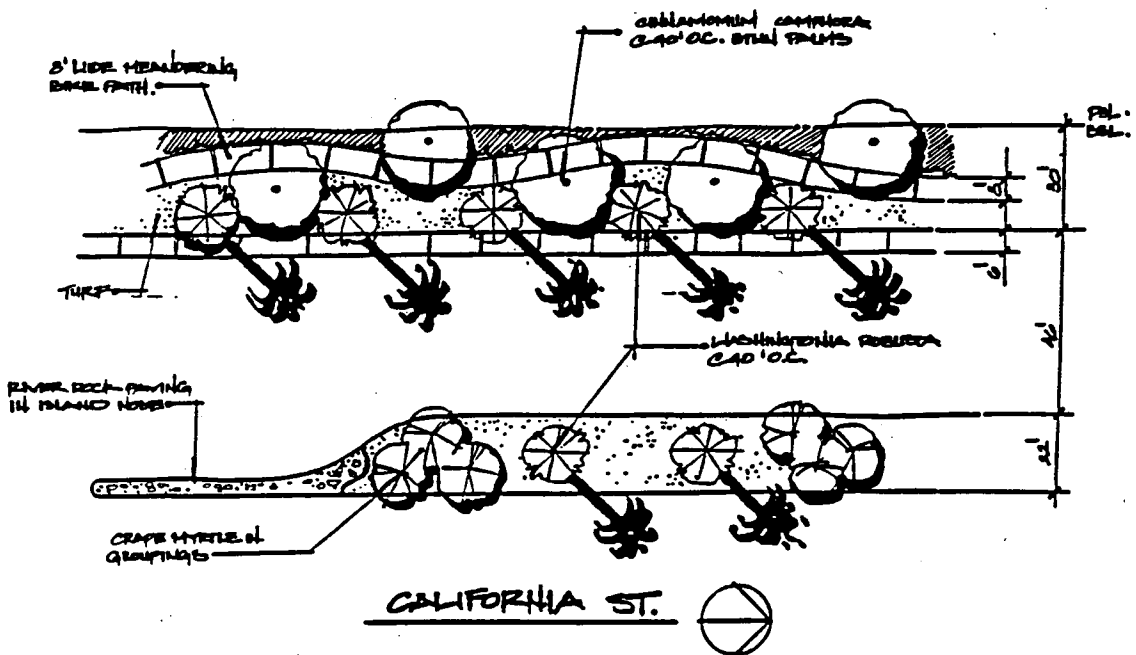
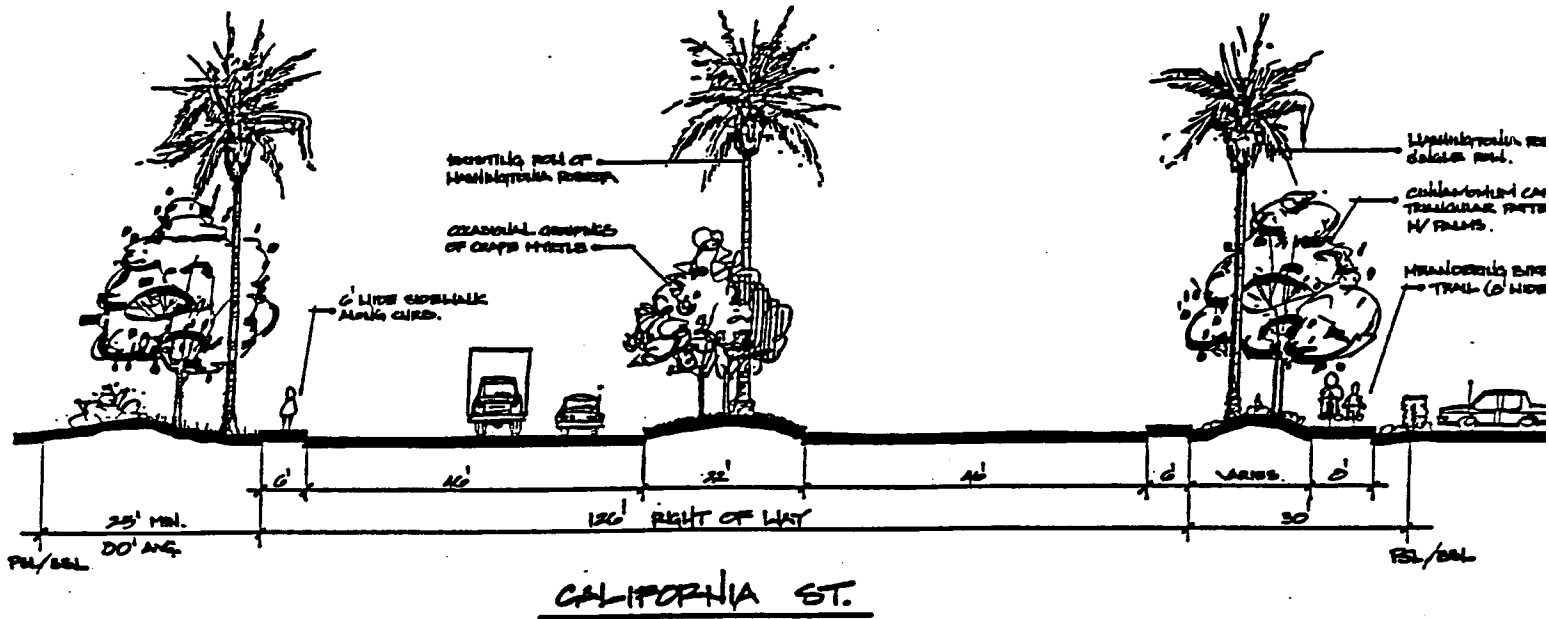


FIGURE 4-10

(f) PALMETTO AVENUE, between California and Alabama Streets

Palmetto Avenue is designated as a major highway between California Street and Alabama Street. It will serve to carry traffic between those two major arterials, and to provide access to the adjacent land designated for Regional Industrial and Special Development. Two existing rows of *Washingtonia robusta*, planted approximately 22 feet apart, extend along Palmetto between California Street and Nevada Street. It is the intent of the landscape guidelines to maintain consistency with the design concepts for California Street, and to preserve and extend the existing palm rows on Palmetto Avenue.

Setbacks

Building Setback line (from property line) 30* feet. Parking setback line (from property line) 30* feet. *Where trail system is not adjacent to roadway, setbacks may be a minimum of 25 feet but must average 30 feet.

Sidewalks

Six (6') foot sidewalks adjacent to curb.

Bike Trail

Class I bike path on north side of Palmetto Avenue (per section EV4.0150).

Groundplane

Berms or other screening required adjacent to parking areas.

Groundcover within Public Right-of-Way

Turf

Street Trees

Camphor trees (*Cinnamomum camphora*) planted thirty (30') feet on center.

Median

Between California Street and (existing) Nevada Street, place double palm row in 34-foot median. Between Nevada Street and Alabama Street, plant new row of Washingtonia Robusta palm trees thirty (30') feet on center in triangular pattern with camphor trees on parkways. Use occasional understory groupings of crape myrtle. Use river rock in median noses.

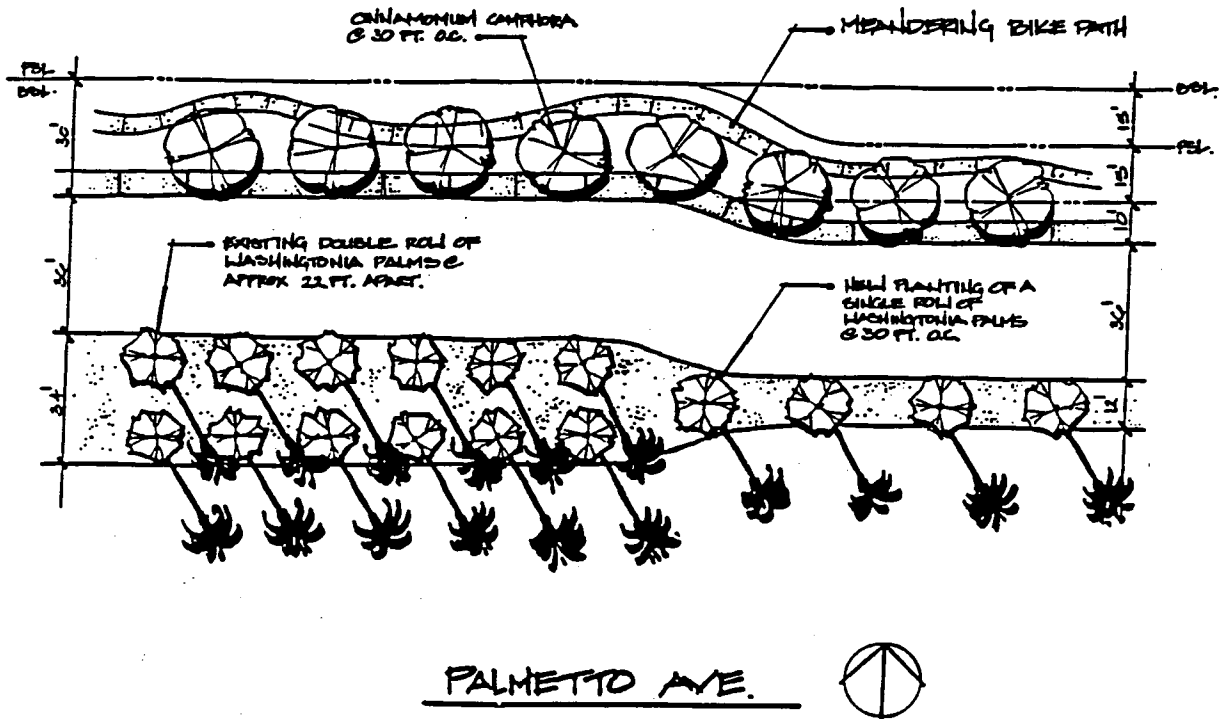
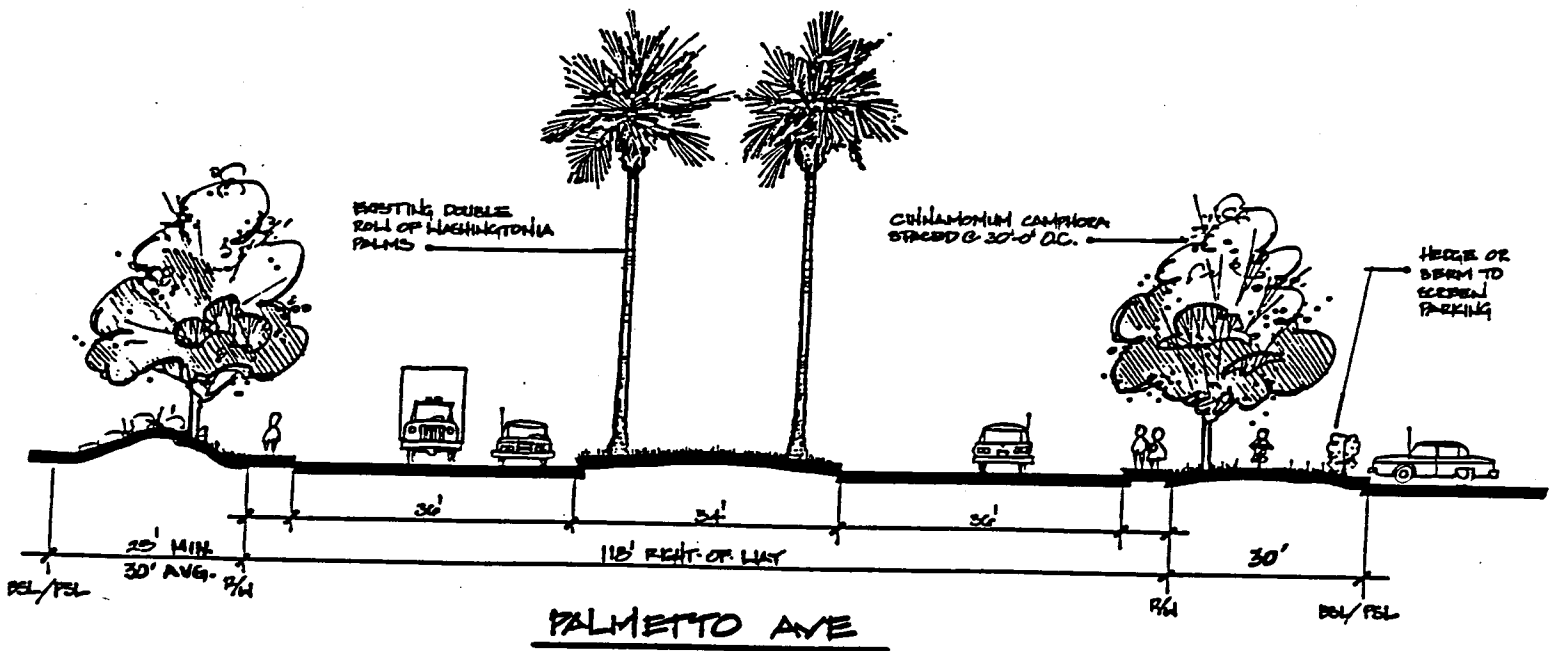


FIGURE 4-11

(g) LUGONIA AVENUE

Lugonia Avenue is designated as a major highway and secondary highway (modified) and parallels Interstate 10 to the north. The secondary highway (modified) section pertains to that portion of Lugonia Avenue from California Street on the west to the 210 Freeway on the east. Land use designations adjacent to Lugonia include General Commercial, Special Development and Regional Commercial. An existing landscape element developed on Lugonia is the citrus grove adjacent to Edwards Mansion, a primary focal point on this street. The intent of the landscape guidelines on Lugonia Avenue is to create a spacious, uncluttered "greenbelt" appearance conducive to business park development.

Setbacks

Building setback line (from property line) 30 feet. Parking setback line (from property line) 15 feet.

Sidewalks

Meandering sidewalk, six (6') foot width, minimum of three (3') feet from back of curb, per Section EV4.0130 (a) and (c).

Groundplane

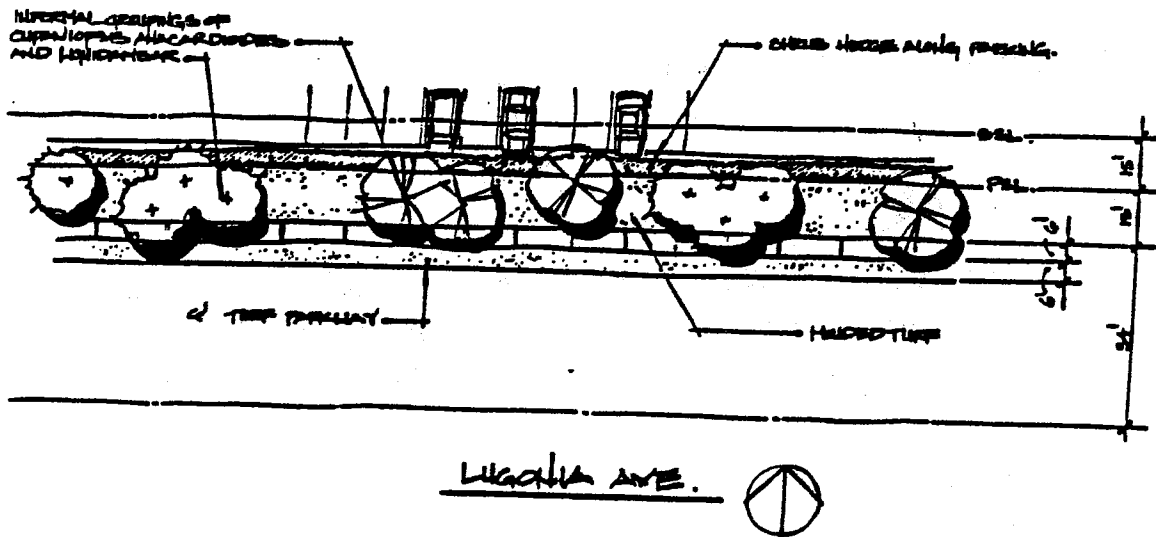
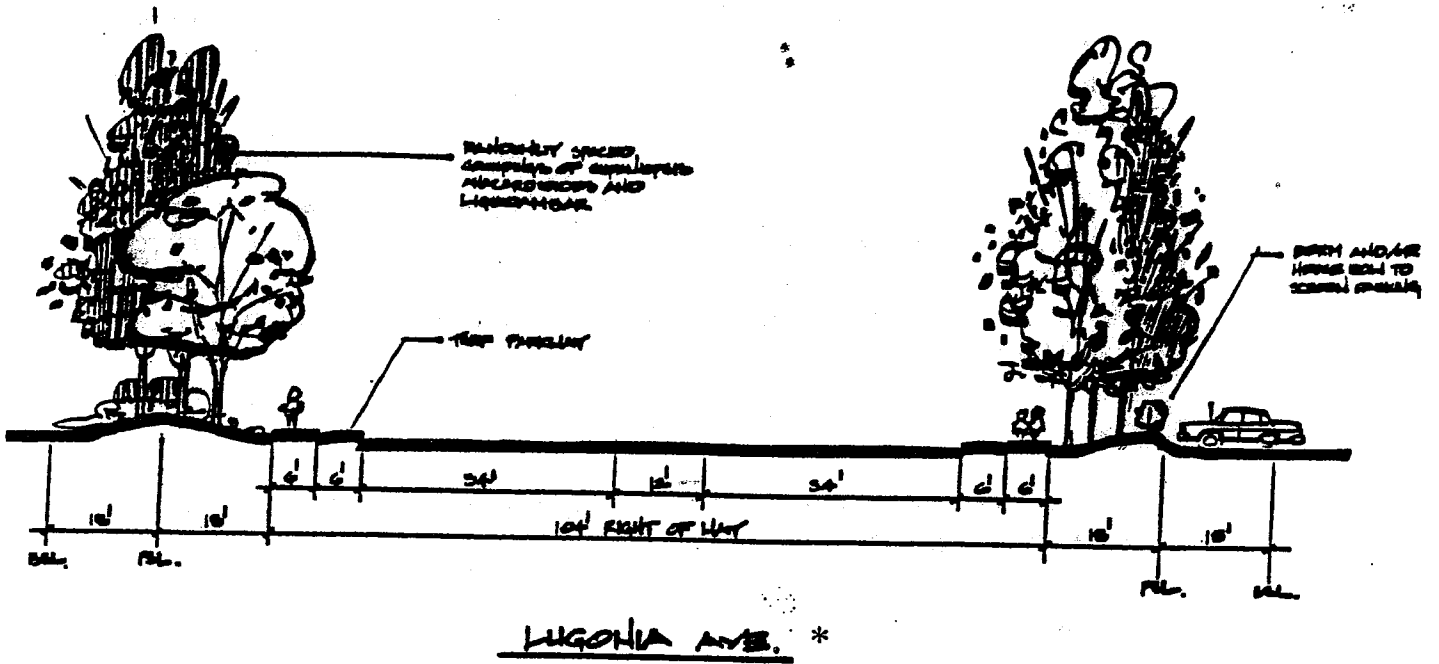
Berms or other screening required where parking areas are visible from right-of-way.

Groundcover Within Public Right-of-Way

Turf

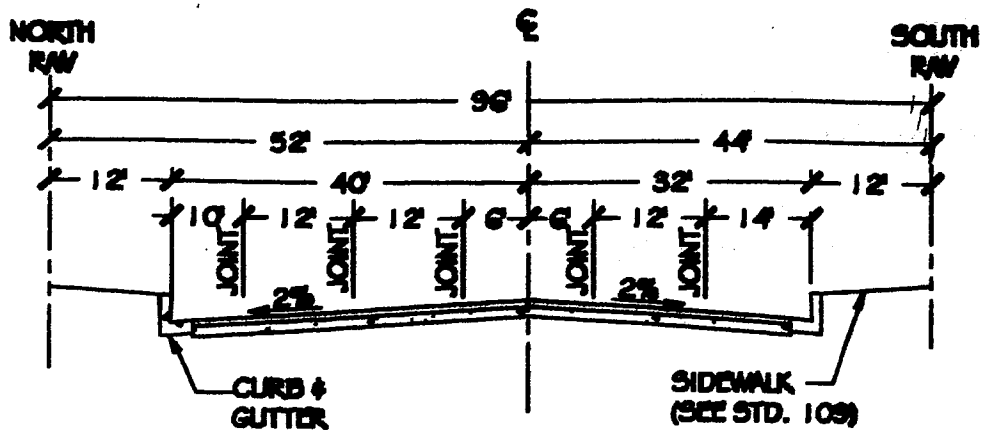
Street Trees

Carrotwood (*Cupaniopsis anacardioides*) and Liquidambar styraciflua planted with random spacing or in grove effect, to provide varied streetscape with view windows, at the equivalent of one tree per thirty (30') linear feet of frontage.



* For Lugonia Avenue from California Street to the 210 Freeway see exhibit 4-12-a

FIGURE 4-12



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE
NTS**

Notes:

1. Structural section of roadway shall be determined from soils test and shall be indicated on construction plans.
2. Drainage facilities shall be provided to de-water raised median areas.
3. 10-foot shoulder areas may be designated as emergency parking only.
4. This secondary highway designation applies only to the south side of the street.
5. The north side of the roadway within the City shall remain designated as a major highway

**SECONDARY HIGHWAY
(MODIFIED)**

Figure 4-12-a

(h) BARTON ROAD

Barton Road is designated as a major highway and borders the planning area on the south. Land use designations adjacent to Barton Road include Neighborhood Commercial, Administrative/Professional, and Multiple Residential. The primary focal points are the Asistencia Mission and Barton House. Existing landscape themes established on this street include bermed turfgrass with deciduous trees, a landscaped median east of Terracina and scattered *Washingtonia filifera* (California fan palms). The intent of the landscape guidelines for Barton Road is to maintain existing planting themes, to establish the planning area identity to traffic entering the area, and to enhance rather than detract from historic structures.

Setbacks

Building setback line (from property line) 25 feet. Parking setback line (from property line) 25 feet.

Sidewalks

Six (6') foot sidewalk adjacent to curb.

Bike Trail

Class II bike lane adjacent to curb (per Section EV4.0150).

Groundcover Within Public Right-of-Way

Turf

Groundplane

Berms or other screening required where parking areas are visible from right-of-way.

Street Trees

Washingtonia filifera on triangulated spacing, each row 80' on center; understory planting of *Platanus acerifolia* and *Bauhinia variegata*, randomly spaced, averaging one (1) tree per 30 linear feet of frontage.

Median

Bermed turfgrass with rock cobble in noses; *Platanus acerifolia* on regular spacing, 30 feet on center; understory planting of crape myrtle for accent.

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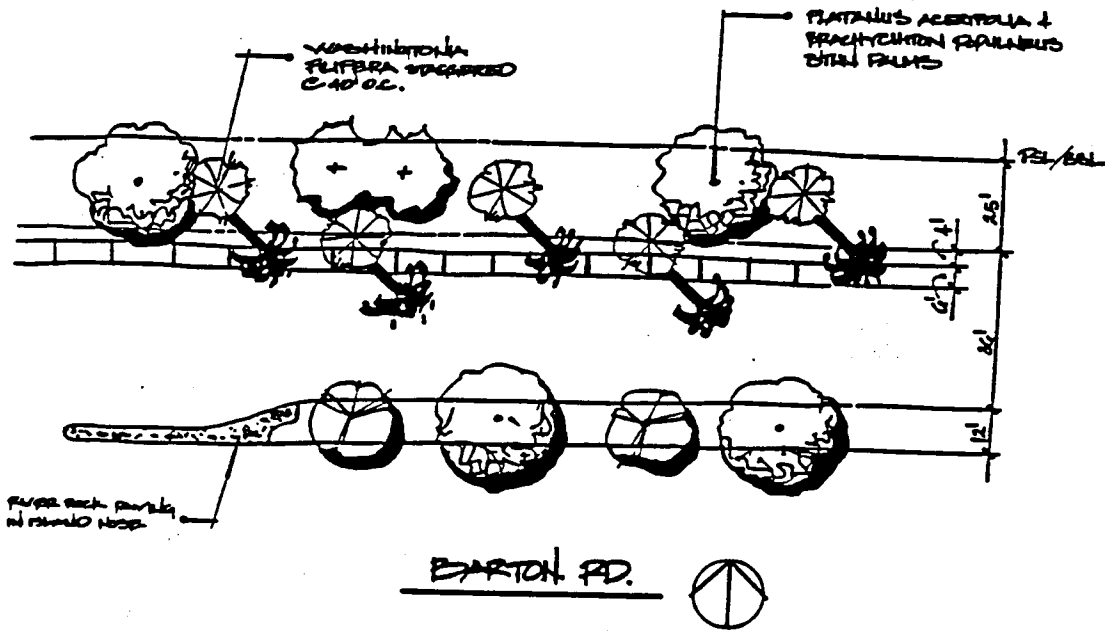
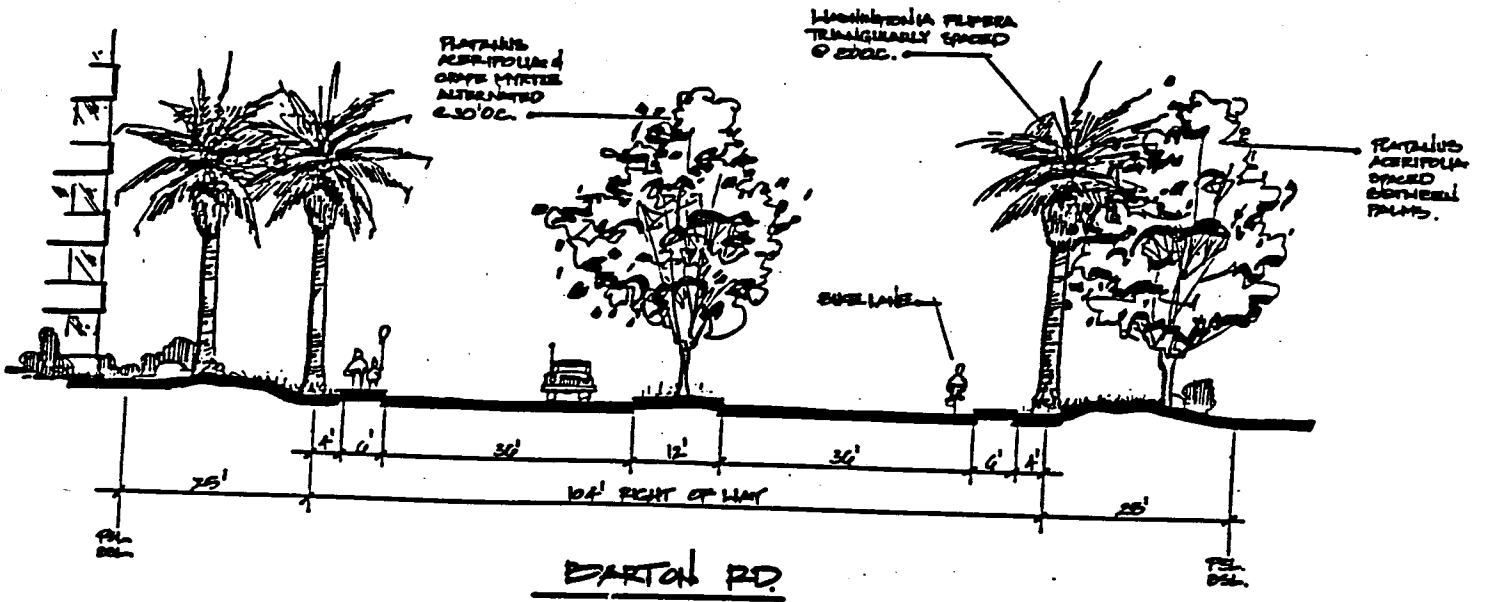


FIGURE 4-13

(i) MOUNTAIN VIEW AVENUE

Mountain View Avenue forms a portion of the western boundary of the plan area, and is designated as a major highway. There is a freeway interchange at Mountain View and I-10. Land use designations adjacent to Mountain View include Planned Development, General Commercial, Commercial/Industrial, and Single Family Residential. South of Interstate 10 there is existing single family residential development and commercial development adjacent to Redlands Boulevard. The northern portion is undeveloped within the planning area; to the west, there is single family residential development. There are established landscape design guidelines along Mountain View within Loma Linda.

The objectives of the landscape guidelines for Mountain View Avenue are to establish an attractive entrance to the planning area at the interchange and a distinctive border treatment to the north, to screen the Edison plant east of Mountain View, and to maintain continuity with Loma Linda's streetscape design.

Setbacks

Building setback line (from property line) 25 feet. Parking setback line (from property line) 25 feet.

Sidewalks

Six (6') foot sidewalks, separated from back of curb.

Groundplane

Berms or other screening required where parking is visible from right-of-way.

Groundcover Within Public Right-of-Way

Turfgrass, and Gazania "Sunrise Yellow".

Street Trees

Liquidambar "Palo Alto", Melaleuca quinquenervia (Cajeput Tree), and Pinus pinea (Italian Star Pine) planted in random spacing or clusters at the equivalent to one tree per thirty (30') linear feet.

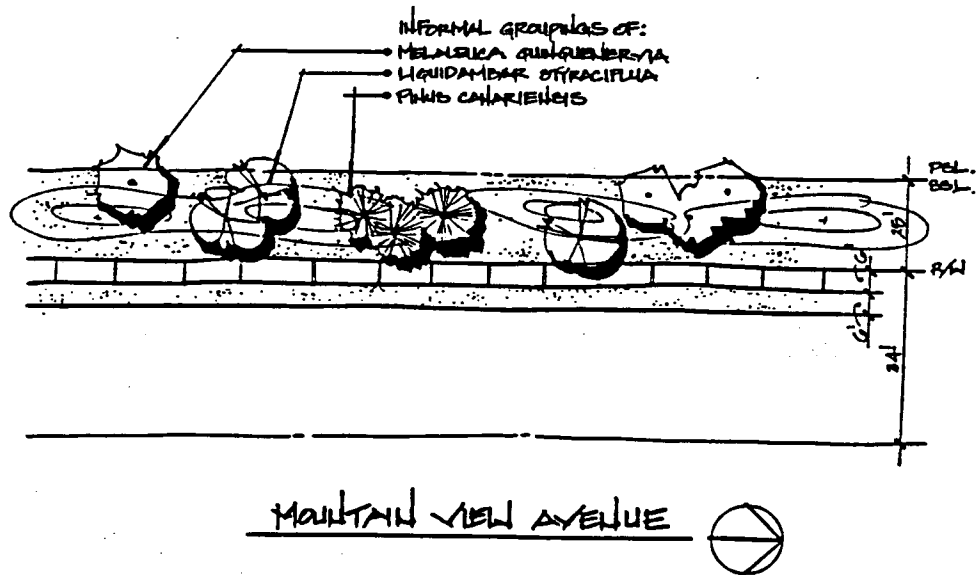
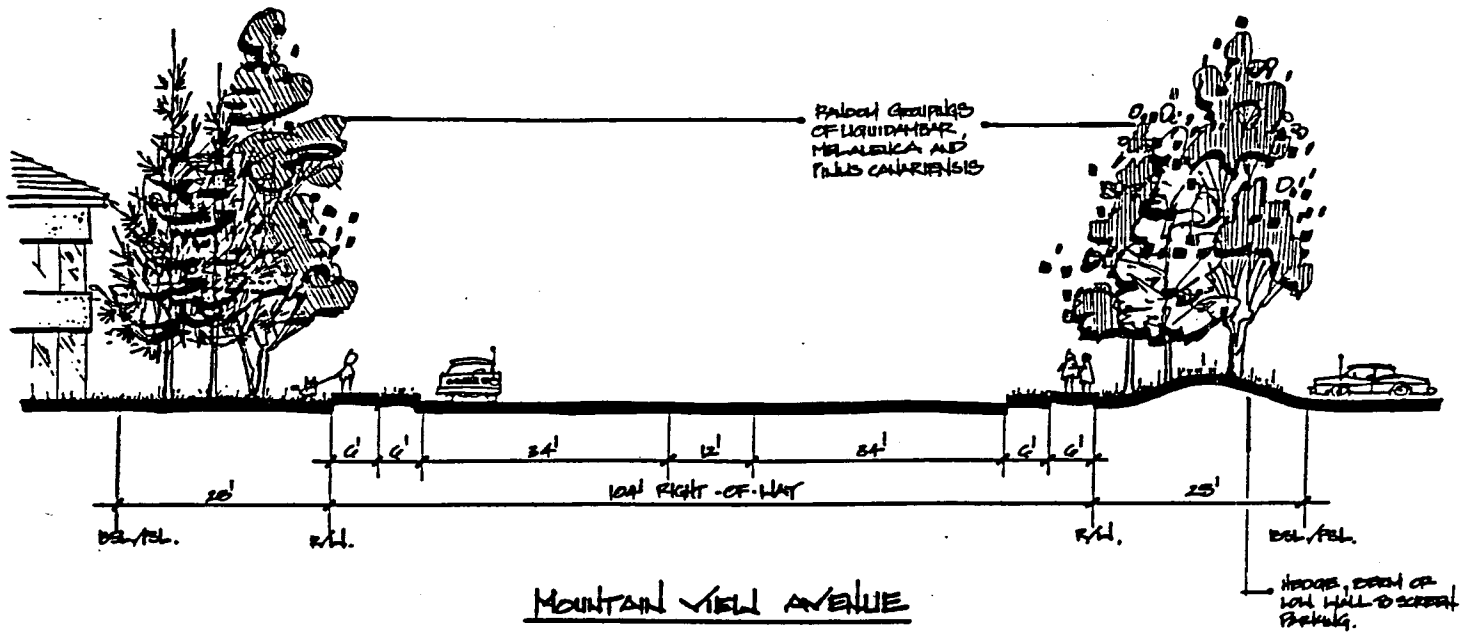


FIGURE 4-14

Section EV4.0120 Special Landscape Requirements for Other Streets

- (a) In addition to existing palm rows along Special Landscaped Streets as outlined in Section EV4.0115, the following streets within the planning area have rows of *Washingtonia robusta* and *Washingtonia filifera* located adjacent to the roadway:

Olive Avenue
Almond Avenue
Citrus Avenue
Nevada Street

- (b) These trees shall be preserved or relocated in accordance with the guidelines contained in Section EV4.0265 of the Specific Plan. Relocated trees shall be used to enhance or extend palm rows designated on Special Landscaped Streets or to enhance Special Landscaped Intersections.

Section EV4.0125 Setbacks at Intersections

- (a) As part of the streetscape design component of the Specific Plan, intersections shall be designed to provide a unified character throughout the planning area. Intersections shall be classified as follows:

- (1) Primary intersections:

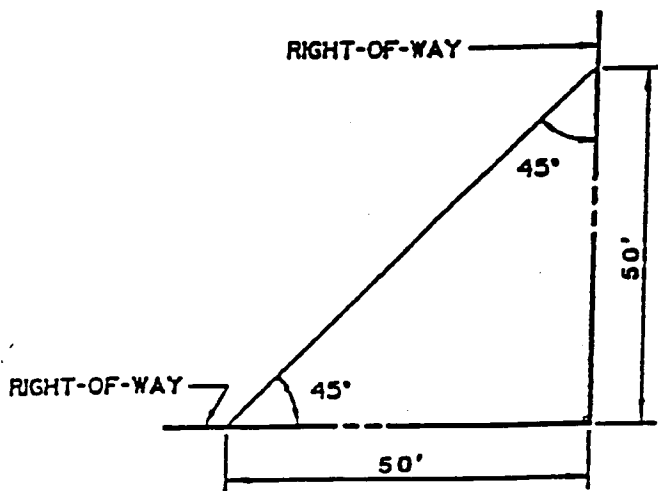
Alabama Street and Palmetto Avenue
Alabama Street and Lugonia Avenue
California Street and Lugonia Avenue

- (2) Secondary intersections:

San Bernardino Avenue and Mountain View Avenue
(southeast corner)
San Bernardino Avenue and Nevada Street
San Bernardino Avenue at Tennessee Freeway (State Route 30)
Mountain View Avenue at Interstate 10 (northeast corner)
Redlands Boulevard and Anderson Street
Redlands Boulevard and California Street
Redlands Boulevard and Alabama Street
Barton Road and California Street (northeast corner)
Barton Road and Alabama Street (northwest and northeast corners)

- (b) Building setbacks from intersections shall be defined by a line in a horizontal plane, taken at a forty-five (45) degree angle, connecting the property lines. On primary intersections, this line shall be drawn 50 feet from the intersection of the property lines or prolongation of such lines; on secondary intersections, 35 feet.

PRIMARY INTERSECTION



SECONDARY INTERSECTION

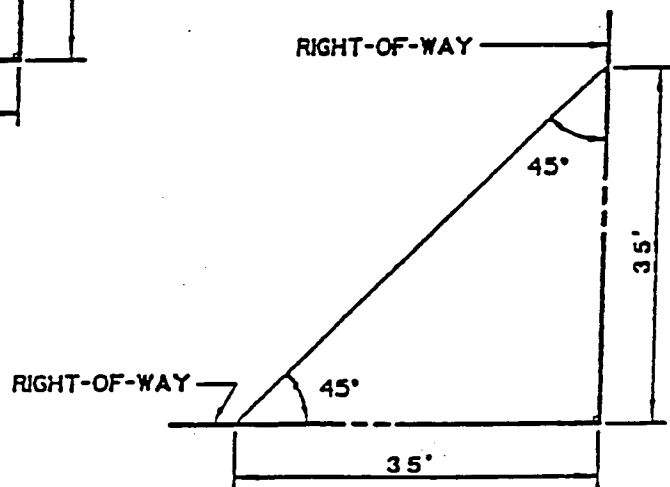


FIGURE 4-15
SETBACKS AT
SPECIAL LANDSCAPED INTERSECTIONS

- (c) A clear sight area shall be established at all intersections of public or private streets within the planning area. This area shall be defined by a line in a horizontal plane, taken at a forty-five (45) degree angle, connecting two points twenty-five (25) feet from the intersection of property lines or the prolongation of such lines. The maximum height of visual barriers, including but not limited to signs, vegetation, fences and walls, shall not exceed thirty-six (36) inches above the top of the curb or forty-four (44) inches above the surface of the street.

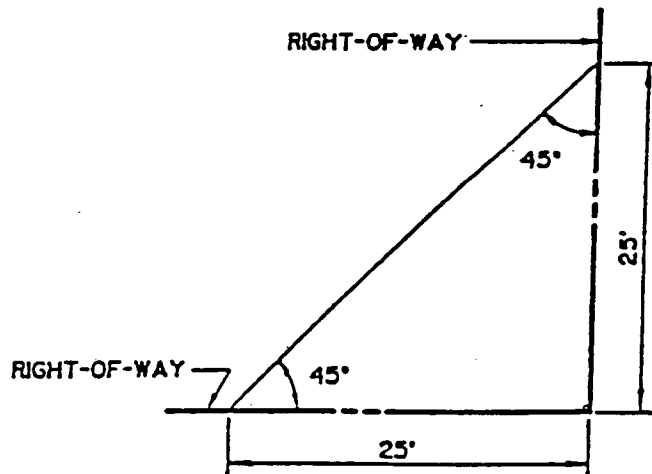


FIGURE 4- 16

SETBACK FOR CLEAR SIGHT TRIANGLE

Section EV4.0130 Planting and Design Concepts for Special Landscaped Intersections

- (a) The design of enhanced corner treatments at key intersections will vary between primary and secondary classifications, but will be developed to retain a similar character which will further establish a sense of continuity throughout the planning area. The design of these corner treatments shall include a combination of masonry walls, ballards, enriched paving, and plant materials which will coordinate with the proposed streetscape planting, yet create a specific focal element.
- (b) The dominant plant materials or Special Landscaped Intersection shall be Washingtonia Robusta Palms along with a flowering accent tree to provide human scale and color; shrub or groundcover planting and/or flowering groundcover.
- (c) Conceptual drawings of how Primary and Secondary Intersections might be constructed are shown on Figures 4-17 and 4-18 respectively. The actual configuration of each designated intersection may differ slightly to provide for integration into the adjacent site design; provided, however, that the primary plant and building materials and design concepts as contained in this Section are adhered to in the intersection design.

PRIMARY INTERSECTION

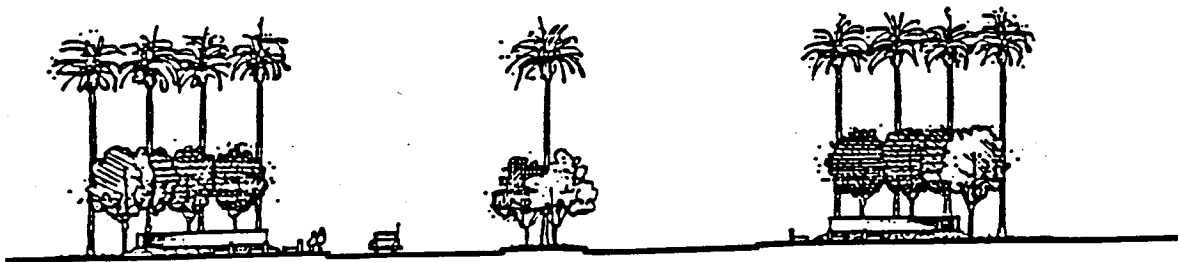
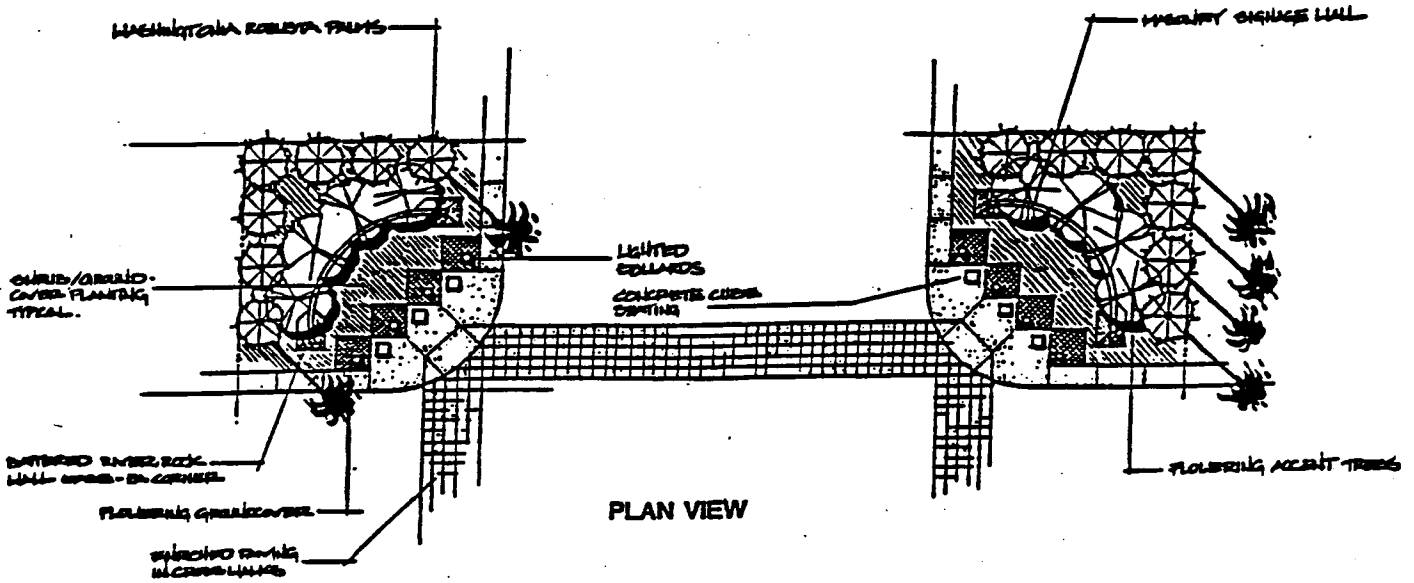
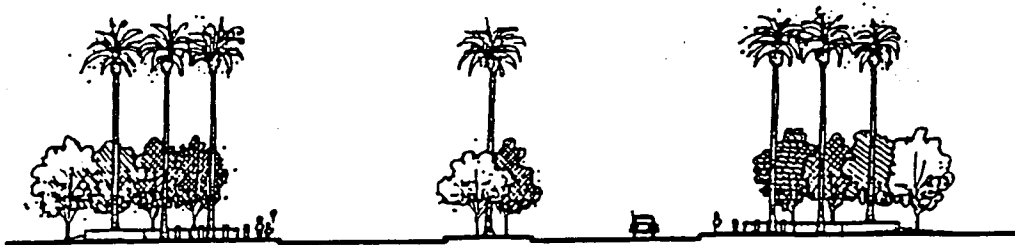
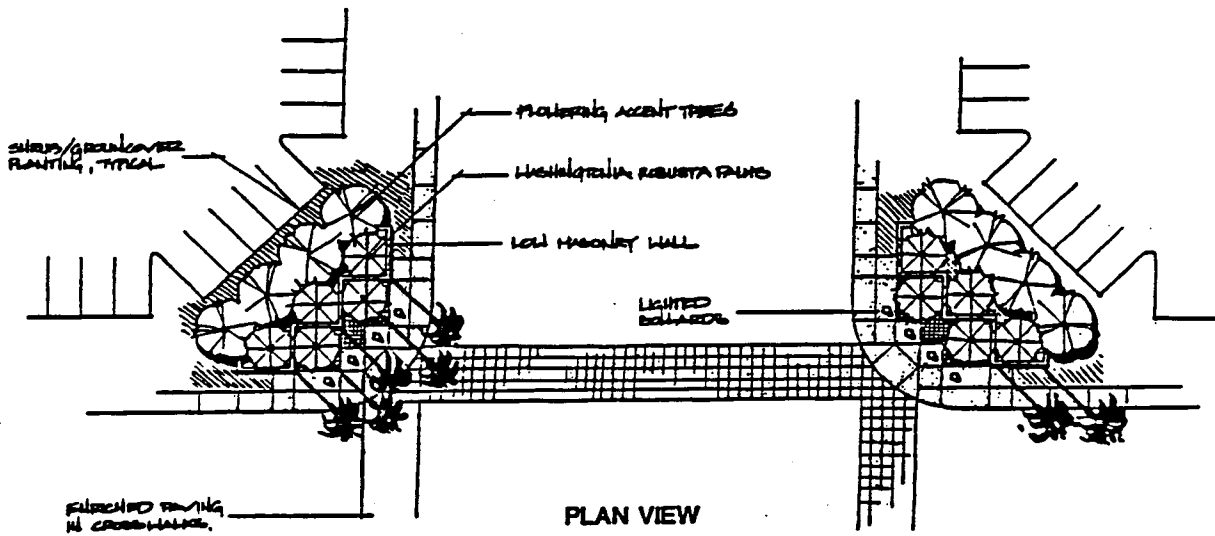


FIGURE 4-17

SECONDARY INTERSECTION



SECTION/ ELEVATION
FIGURE 4-18

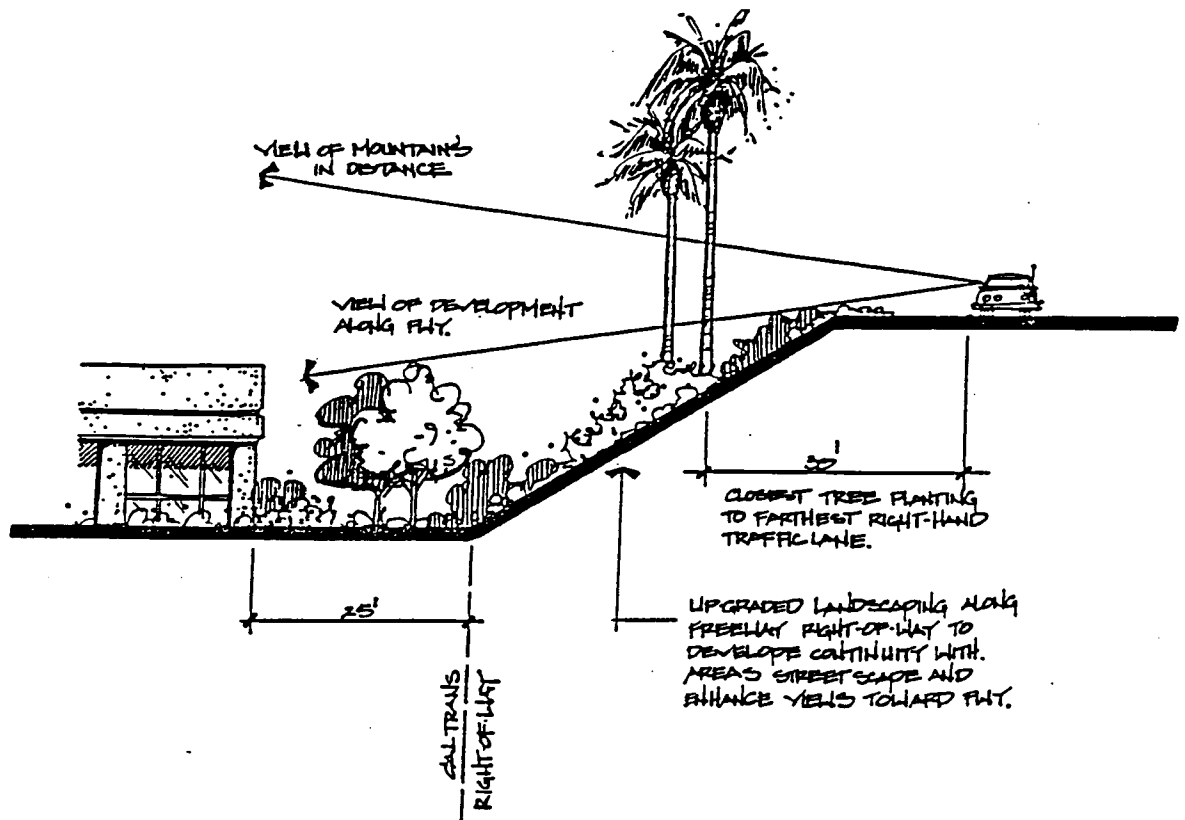
Section EV4.0135 Maintenance of Special Landscaping

- (a) Installation and maintenance of palm rows and public right-of-way along Special Landscaped Streets, and installation and maintenance of Special Landscaped Intersections shall be the responsibility of a Landscape Maintenance District to be formed for that purpose by the governing agencies.
- (b) Landscape easements may be required by the governing agency over privately-owned property adjacent to special landscaped streets and intersections where the agency determines that installation and/or maintenance of landscape improvements on that property will be undertaken by the Landscape Maintenance District.

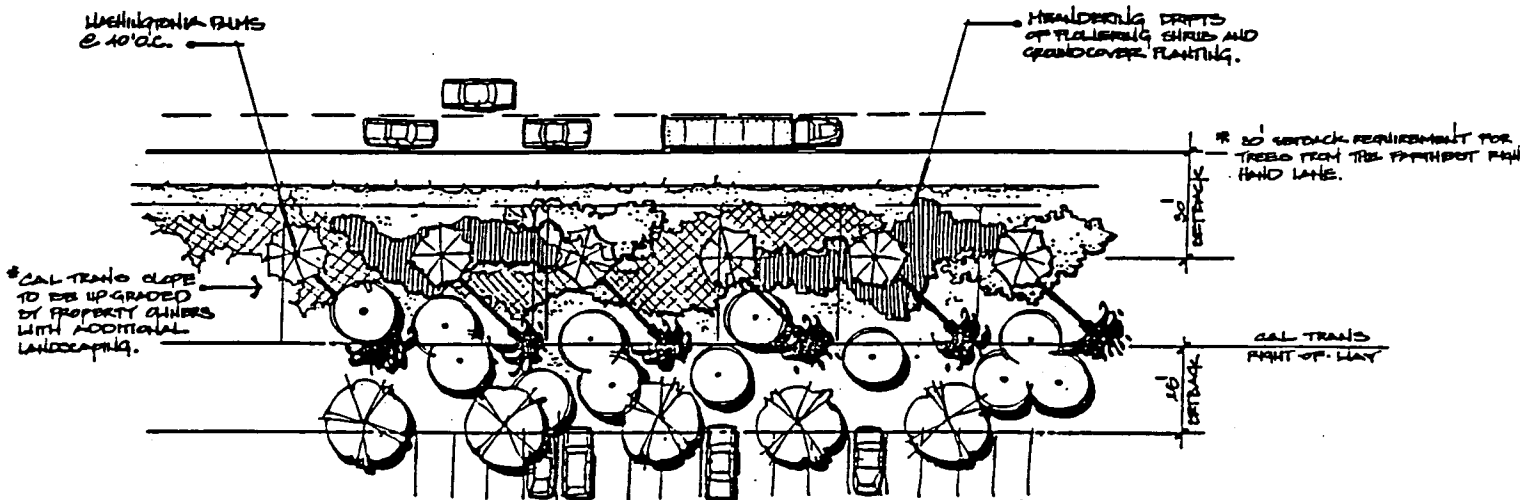
Section EV4.0140 Landscape Concepts for Freeways

- (a) Planting guidelines along the freeways shall be consistent with other landscape guidelines established for the Specific Plan area in order to enhance the continuity of landscape design and improve freeway views from both on and off the roadway.
- (b) Required setbacks adjacent to freeways shall be established as follows:
 - (1) A minimum 25 feet of landscaped area shall be established adjacent to all freeway rights-of-way.
 - (2) Within the Special Development District, this landscaped area may be reduced to 15 feet in width if approved by the reviewing agency under the following conditions:
 - (A) The freeway is elevated, with steep slopes adjacent to the right-of-way.
 - (B) An additional 10 feet of landscaping shall be provided on-site so as to be visible from the freeway.
 - (C) A 25 foot building setback shall be maintained; parking may be permitted if enhanced with canopy-type trees.
 - (3) All buildings shall be setback an average of fifty (50) feet from all Caltrans property lines, unless the reviewing authority finds that such a setback would severely constrain the reasonable use of a parcel due to its configuration or location.

- (c) The plant palette for freeway landscaping shall include the following:
- (1) Trees
 - Washingtonia Robusta, 10 foot trunk @ 40 feet on center.
 - (2) Shrubs (all 1 gallon minimum @ 8 feet on center)
 - Dodonaea Viscosa
 - Leptospermum Scoparium
 - Nerium Oleander
 - Photinia Fraseri
 - Tecomaria Capensis
 - Raphiolepis Indica
 - Pyracantha Species
 - (3) Groundcover
 - Hedera Helix
 - Lantana Species
- (d) Within the Caltrans right-of-way, upgraded landscaping installed by property owners shall be coordinated with Caltrans. A 30 foot setback shall be maintained between the edge of the travel lane and any tree planting. The property owner shall bond for maintenance of the plant materials as required by Caltrans.
- (e) Conceptual renderings of freeway planting guidelines are shown in Figure 4-19.



FREWAY EDGE SECTION



FREWAY RIGHT-OF-WAY
PLAN VIEW

FIGURE 4-19

Section EV4.0145 Pedestrian Circulation and Open Space

- (a) Sidewalks shall be required on all public streets within the planning area. Sidewalks shall be constructed of concrete, with a minimum clear width of five (5) feet. Any sidewalk constructed adjacent to curb shall be a minimum of six (6) feet wide. Any sidewalk constructed within two and one half (2 1/2) feet of back of curb shall join to back of curb. Sidewalk shall be three (3) feet away from curb face except at curb returns and bus stops.
- (b) Additional sidewalks may be required during the design review stage of development processing. The following design standards shall apply in the determination of sidewalk locations:
 - (1) The sidewalk system shall provide for a safe, continuous pedestrian circulation and access system to all parts of the development. Pedestrian access shall be provided from public streets and parking lots to building entries, and walkways provided on-site shall connect with those off-site.
 - (2) The sidewalk system shall connect to pedestrian trails through the open-space areas.
- (c) The following standards shall apply to meandering sidewalks:
 - (1) Radii for curved sidewalk shall be between 200 and 600 feet.
 - (2) All radii shall be staggered.
 - (3) Maximum sidewalk grade shall not exceed 8.33% regardless of street grade.
- (d) Curb cuts for handicapped access shall be provided on all roadways as required by State law.
- (e) Bus turnouts and bus shelters may be required during the design-review stage of development processing. These facilities shall be designed to maximize security features and shall be located in proximity to both traffic signals and pedestrian crosswalks, so as to provide for ease of ingress for buses and ease of access for pedestrians. Bus stops shall be a minimum of fifty (50) feet in length.
- (f) Building configuration and placement shall provide for pedestrian courtyards, plazas, or open spaces between and/or adjacent to buildings.

- (g) The design of pedestrian plazas or courtyards shall provide shaded seating areas with attractive landscaping and should include water features, public art, kiosks, and covered walkways.
- (h) Benches, light standards, trash receptacles, and other street furniture shall be provided in an attractive and comfortable setting and shall be designed to enhance the appearance and function of a site and open space areas.

Section EV4.0150 Trails System

- (a) There is an opportunity in the East Valley Corridor to establish a trail system which will link up with regional trail systems to provide for both an energy efficient alternative to the automobile, and for recreational use within the planning area.
- (b) Figure 4-20 illustrates the trail system proposed for the planning area. The proposed facilities include:
 - (1) Commuter bikeways which are parallel to major roads and provide the most direct route for the work trip.
 - (2) Recreational pedestrian paths and bikeways which may or may not be adjacent to a roadway, are generally located in open space or landscaped areas and serve to provide the local pedestrian and bicycle circulation network.
- (c) There shall be two classes of bikeways in the East Valley Corridor:
 - (1) Class I Bikeway (Bike Paths) - are facilities with exclusive rights-of-way, separated from other vehicular rights-of-way, with cross flows by motorists minimized, serving the exclusive use of bicycles and pedestrians.
 - (2) Class II Bikeway (Bike Paths) - are bicycle lanes for preferential use by bicycles established within the paved area of highways and designated by specific lines of demarcation between the areas reserved for bicycles and lanes to be occupied by motor vehicles.
- (d) The following standards shall apply to Class I Bikeways:
 - (1) Bicycle paths shall be two-way routes.
 - (2) The minimum paved width for a two-way bike path shall be 8 feet. A minimum 2-foot wide graded area shall be provided adjacent to the pavement. (See Figure 3-10)

- (3) A minimum 2-foot horizontal clearance to obstructions shall be provided adjacent to the pavement.
 - (4) The vertical clearance to obstructions across the clear width of the path shall be a minimum of 8 feet.
 - (5) Bike paths closer than 5 feet from the edge of a highway shall include a physical divider such as fencing, berms, trees or shrubbery to prevent bicyclists from encroaching onto the highway.
- (e) The following standards shall apply to Class II Bikeways:
- (1) Bike lanes shall be one-way facilities.
 - (2) Where required, bike lanes shall occupy the emergency parking lane along major arterials, major highways and secondary highways, with widths of 8 to 10 feet. Painted demarcation lines shall define the bicycle lane, with appropriate freestanding and pavement signs. (See street cross-sections under transportation standards.)
- (f) Bikeways shall be constructed in accordance with the California Highway Design Manual, Bikeway Planning and Design.
- (g) Drainage inlet grates, manhole covers, driveways, etc., on bikeways should be designed and installed in a manner that provides an adequate surface for bicyclists.
- (h) Uniform signs, markings, and traffic control devices are mandatory and shall conform to the requirements of State law.
- (i) Pedestrian and bicycle pathways which are not associated with roadways shall be located to take advantage of attractive natural drainage areas whenever possible; landscaping and lighting shall be provided to create an attractive environment in the area of pedestrian and bike pathways to encourage their use.

EAST VALLEY CORRIDOR SPECIFIC PLAN TRAIL SYSTEM

- PROPOSED TRAILS
- LINK TO EXISTING OR PROPOSED TRAILS

Trail Relocated along east side of Mountain View Avenue

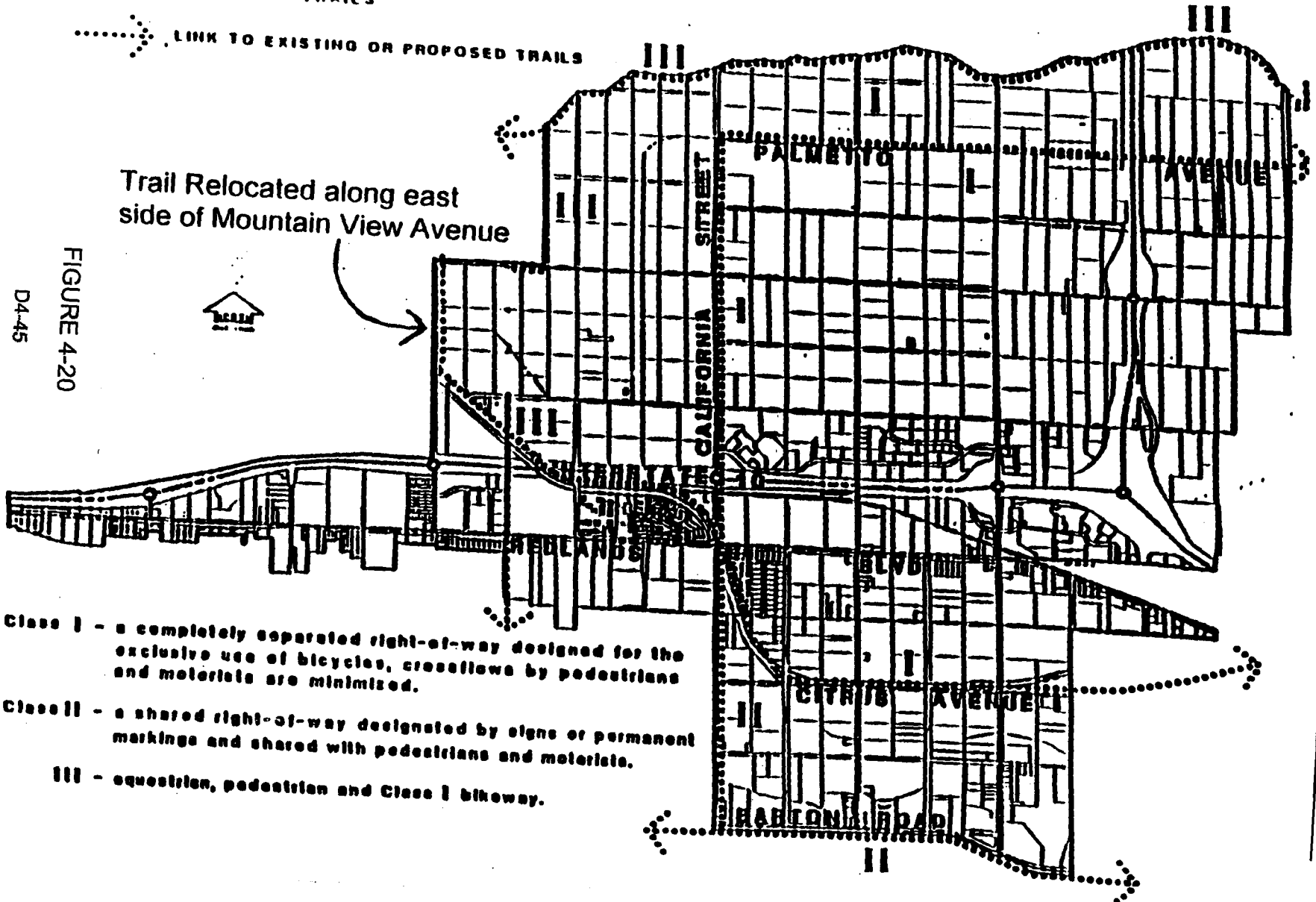


FIGURE 4-20
D4-45

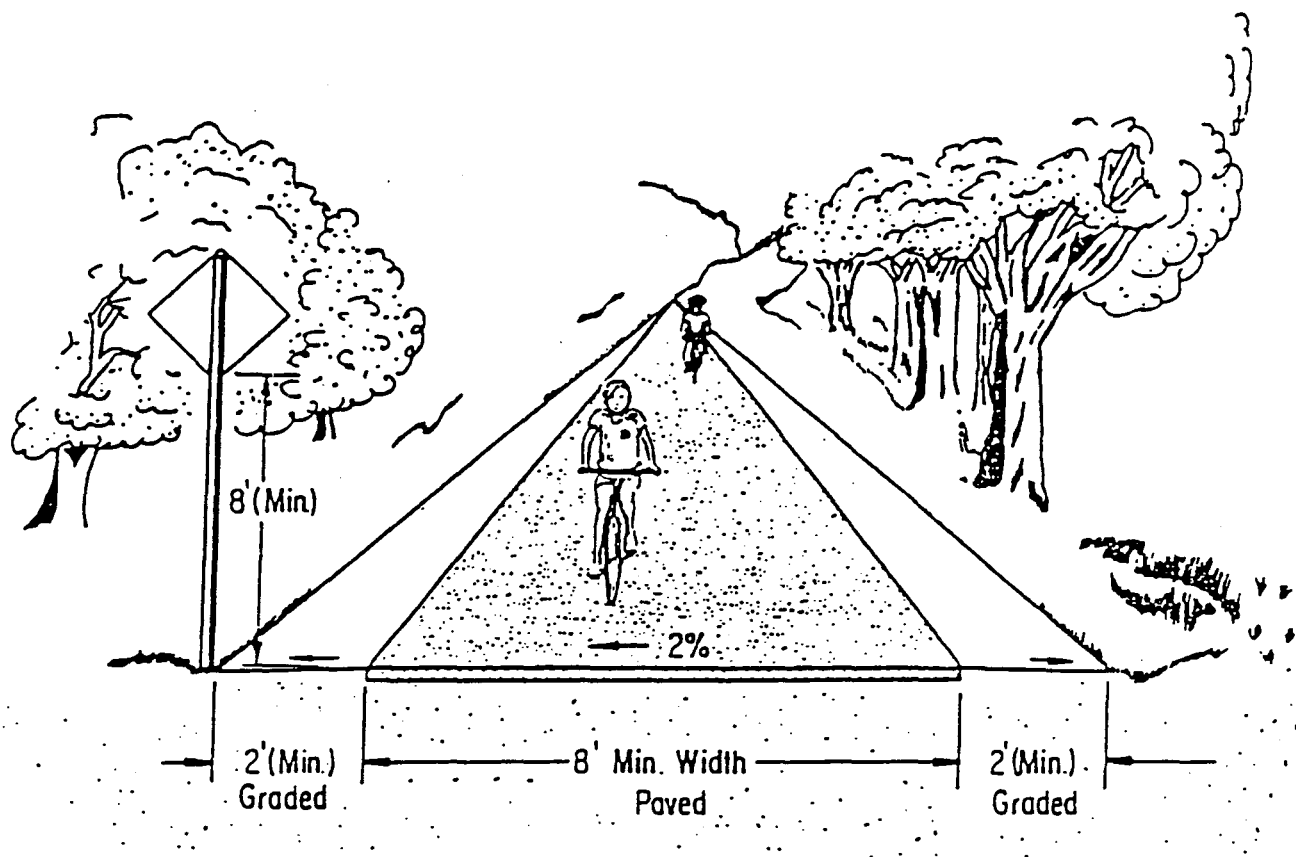
- Class I** - a completely separated right-of-way designed for the exclusive use of bicycles, crossflows by pedestrians and motorists are minimized.
- Class II** - a shared right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.
- III** - equestrian, pedestrian and Class I bikeway.

- (j) All bike and pedestrian pathways shall have adequate lighting and signing to provide for the safety of the users.
- (k) At-grade trail crossings shall be provided for at signalized intersections wherever possible.
- (l) Bike storage facilities shall be provided in commercial and mixed use areas.

Section EV4.0155 Parks and Open Space

The specific demand on location of parks and open space can not be determined until the land uses established within the Special Development District have been determined. Implementation of park and open space provision, construction and maintenance shall be determined by the County of San Bernardino, the City of Redlands and the City of Loma Linda through implementation of ordinances and procedures adopted by each agency.

TWO-WAY BIKE PATH ON SEPARATED RIGHT-OF-WAY



TYPICAL CROSS SECTION BIKE PATH ALONG HIGHWAY

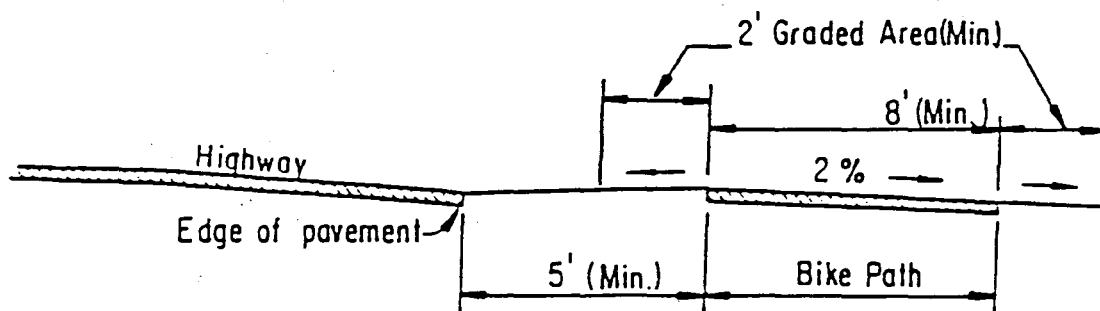


FIGURE 4-21

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CHAPTER 2. SITE DESIGN STANDARDS AND GUIDELINES

Section EV4.0201 Parking Requirements

Adequate parking shall be provided on-site for each use within the East Valley Corridor in accordance with the following requirements:

USE	PARKING REQUIREMENT
a. Residential	
Single Family	2 garage spaces
Multiple Family (A minimum of 1 space per unit to be covered)	Studio - 1 space/unit One-bedroom - 1.5 spaces/unit Each additional bedroom - 0.5 add spaces/unit Guest parking - 0.25 spaces/bedroom or sleeping quarters (*Guest parking to be designated and dispersed through development)
b. Commercial Uses	
Automobile and machinery sales	1 space/2,000 square feet of open area devoted to display or sales; provided that where such area exceeds 10,000 square feet, 1 space shall be required per each 5, 000 square feet in excess of 10,000 square feet; and 2 spaces/auto service bay
Hotels/motels	1.1 spaces/sleeping unit
Neighborhood center	1 space/200 square feet of gross floor area
Restaurants, drive-through	1 space/3 seats; or 1 space/50 square feet of serving area, whichever is larger; and 1 space for each 2 employees; minimum of 10 spaces; and with an additional 6 stacking spaces provided for drive through service operation
Restaurants, sit-down (with or without liquor and/or entertainment)	1 space/3 seats; or 1 space/50 square feet of serving area, whichever is larger; and 1 space for each 2 employees; minimum of 10 spaces
Retail furniture/appliance	1 space/400 square feet of gross floor area; and 1 space/each 2 employees
Retail trade (includes department stores)	1 space/250 square feet of gross floor area
Shopping centers 100,000 square feet and greater	1 space/250 square feet of gross floor area
Wholesale trade	1 space/2 employees and 1 space for each company vehicle; or 1 space/1,000 square feet of gross floor area, whichever is greater
c. Business Services	
Automated warehousing	1 space/1,000 square feet of gross floor area or 1 space/each employee on the largest shift, whichever is larger (Requirement may be reduced if applicant submits letter justifying reduction of spaces; however, adequate area for expansion of parking shall be provided in case of conversion of use.)

Automobile repair	5 spaces/service bay; minimum of 6 spaces
Banks, financial institutions	1 space/200 square feet of gross floor area; minimum of 4 spaces; and a minimum of 6 stacking spaces for drive-through service operations
Bus terminals	1 space/100 square feet of gross floor area
Car wash, automated	1 space/employee on the largest shift
Car Wash, self-serve	2 drying spaces per washing stall
Contractor's yard	1 space/2 employees and 1 space for each company vehicle
Office (real estate, insurance, advertising, legal, etc.)	1 space/250 square feet of gross floor area; minimum of 4 spaces
Health club, gymnasium	1 space/250 square feet of gross floor area
Rail terminals	1 space/100 square feet of gross floor area
Repair services	1 space/400 square feet of gross floor area
Service station/mini-mart	1 space/250 square feet of gross floor area
Warehousing	1 space/500 square feet of gross floor area up to 20,000 square feet; 1 space per 1,000 square feet over 20,000 square feet
d. Professional Services	Parking Requirement
Convalescent hospitals/nursing homes	1 space/3 beds; plus 1 space/each employee on the largest shift
Hospitals	1 space/patient bed plus 1 space for every employee and staff member on largest shift
Medical, dental offices	1 space/200 square feet of gross floor area; minimum of 5 spaces per office
Veterinary hospital	6 spaces minimum up to 1,000 square feet of gross floor area, plus 1 space/each 250 square feet in excess of 1,000 square feet
e. Educational Services	
Child care	1 space/employee and 1 space/5 children; minimum of 4 spaces
Elementary school	5 spaces plus 1 space for each classroom
High school	1 space/5 students plus 1 space/staff member and employee
College/University	1 space/3 enrolled daytime students and 1 space/staff member and faculty personnel
Trade/vocational/business	1 space/3 students plus 1 space/staff member and faculty personnel
f. Entertainment	
Amusement enterprises	1 space/4 persons using facilities
Billiard parlor	2 spaces/billiard table

Bowling alleys	5 spaces/each bowling lane and 2 spaces/billiard table
Dance hall	1 space/20 square feet of dance floor area and 1 space/3 fixed seats or 1 space per 20 square feet of seating where there are no fixed seats
Golf course	10 spaces for each hole, and 1 space/250 square feet of gross floor area for other commercial uses
Organized camp	1.5 spaces/staff member or employee
Parks, pool, etc.	To be determined based upon an evaluation of the park and its activities through the conditional use permit process
Skating rinks	1 space/3 fixed seats and for every 20 square feet of seating area where there are no fixed seats and 1 space for each 250 square feet of skating area (24 linear inches of bench shall be considered a fixed seat)
Theater/auditorium	For theaters with 6 or fewer screens and all other public assembly uses - 1 space/5 fixed seats. Where structures other than fixed seats are provided 18 inches of linear seating equals 1 seat. For theaters with more than 6 screens - 1 space/6 fixed seats. For all public assembly uses, no additional parking shall be required for non-seating area. Where no fixed seats are provided for every 40 square feet of gross floor area which spectators will be seated.
g. Miscellaneous	
Chapels/mortuaries	1 space/5 fixed seats of all area used for assembly or 1 space/40 square feet of assembly area; Also, 1 space per vehicle used in connection to the use
Church	1 space/3 fixed seats or 1 space/40 square feet of floor space designated for assembly purposes
Government building (little public use)	1 space/250 square feet of gross floor space or 1 space per employee
Government building (public use)	1 space/250 square feet of gross floor area
Manufacturing	1 space/500 square feet of gross floor area or 1 space/employee on the largest shift, whichever is greater
Private clubs/lodges	1 space for each 50 square feet for floor area designated for assembly purposes"

Section EV4.0205 Parking Standards

- (a) The required parking spaces shall be located on the same site with the main use or building. Property within the ultimate right-of-way of a street or highway shall not be used to provide required parking or loading facilities.
- (b) On-site parking shall be restricted to those areas which are paved and designated for vehicle parking.
- (c) When the occupancy or use of any premises is changed to a different use, parking to meet the requirements of Section EV4.0201 shall be provided for the new use or occupancy.

- (d) When the occupancy or use of any premise is altered, enlarged, expanded or intensified, additional parking to meet the requirements of Section EV4.0201 shall be provided for the additional area and/or use.
- (e) Where two or more uses are located in a single building or a single premise, required parking shall be provided for each specific use.
- (f) No required parking space or loading area shall be discontinued, reduced or altered in any manner below the requirements established in this Division unless alternative parking is provided.
- (g) Shared parking may be approved by the governing agency, provided that time of operation of the involved businesses are not the same, under the following conditions:
 - (1) Up to 50% of the parking facilities required by this Section for a use considered to be primarily a daytime use may be provided by a use considered to be primarily a night time use; up to 50% of the parking facilities required by this Section for a use considered to be primarily night time use may be provided by a use considered to be primarily a daytime use, provided that such reciprocal parking area shall be subject to conditions as set forth in paragraph (3) below.
 - (2) The following uses are typical daytime uses: Banks, business and professional offices, retail stores, personal service shops, clothing or shoe repair or service shops, and similar uses. The following uses are typical of night time and/or Sunday uses: auditoriums, fraternal lodges, churches, and theaters.
 - (3) Conditions required for joint use:
 - (A) A building or use for which application is being made for authority to utilize the existing off-street parking facilities provided by another building or use, shall be located within one hundred fifty feet of such parking facilities.
 - (B) The applicant shall show that there is no substantial conflict in the principal operating hours for the buildings or uses for which the joint use of off-street parking facilities is proposed.
 - (C) Parties concerned in the joint use of off-street parking facilities shall evidence agreement for such joint use by a proper legal instrument approved by the City Attorney as to form and content.
- (h) Each off-street parking space shall have dimensions not less than nine (9) feet in width and nineteen (19) feet in length, except parallel parking stalls which shall be a minimum of eight (8) feet in width and twenty-four (24) feet in length. No part of the area of a required parking space shall be used for

driveways, aisles, walkways, or other required improvements. Stall depths may be reduced up to one (1) foot where the parking space is adjacent to a six (6) foot or wider sidewalk or adjacent to a landscaped planter with an interior diameter of five feet or more.

- (i) Handicapped parking shall be provided in accordance with the requirements of State law.
- (j) Individual parking stalls shall be legibly marked off on the pavement. Arrows painted on paving shall dictate direction of traffic flow. The parking area shall be designed so that a car entering the parking area shall not be required to enter a street to move from one location to any other location within the parking area or premises.
- (k) Entryways to parking areas shall be well-defined and recognizable with adequate lighting and signage provided to facilitate traffic flow.
- (l) Parking and maneuvering areas shall be so arranged that any vehicle entering the public right-of-way can do so traveling in a forward direction.
- (m) Minimum aisle widths for two-way traffic: For two-way traffic, aisle width and maneuvering areas shall be a minimum of twenty-six (26) feet in width.
- (n) Minimum aisle widths for one way traffic:

<u>Parking Angle</u>	<u>Aisle Width</u>
0	13 feet
45	14 feet
60	17 feet
90	26 feet

- (o) The required off-street parking and loading areas and access drives shall be surfaced per specifications of the governing jurisdictions.
- (p) Head in parking which would necessitate full frontage access to the street or highway shall not be permitted.
- (q) Parking areas shall be designed to facilitate sweeping and reduce trash buildup; parking bumpers shall be prohibited.
- (r) Visitor parking areas shall be provided near visitor entrances. Where appropriate, visitor drop-off zones shall be provided near visitor entrances.
- (s) Pedestrian walkways shall be provided to connect parking areas to destination points. Walkways shall be paved, lighted, and have adequate

signage to direct pedestrian traffic.

- (t) Parking structures shall be permitted within the plan area; exterior design shall be architecturally compatible with main building. Parking structure should merge with or extend from main building rather than be an isolated structure. Autos should be screened to a height of 3'6" to 4' on each level, and the space remaining above the screening element, up to the ceiling of the next floor, shall remain open and unobstructed. Facades should be multi-textured or have other architectural relief.
- (u) The provision of compact parking is permitted in accordance with the criteria and specifications of the Redlands Municipal Code.

Section EV4.0210 Loading Areas

- (a) All hospitals, institutions, hotels, commercial and industrial uses shall provide loading spaces not less than ten (10) feet in width, twenty (20) feet in length and fourteen (14) feet in height as follows:

Square Feet of Building Space (Gross Floor Area)	Loading Spaces Required
3,000 - 15,000	1
15,001 - 45,000	2
45,001 - 75,000	Commercial Buildings 3
75,001 - 105,000	4
105,001 - and over	5
3,500 - 40,000	1
40,001 - 80,000	2
80,001 - 120,000	Industrial Buildings 3
120,001 - 160,000	4
160,001 - and over	5
3,000 - 20,000	1
20,001 - 50,000	2
50,001 - 80,000	Hospitals & Institutions 3
80,001 - 110,000	4
110,001 - and over	5
3,000 - 50,000	1
50,001 - 100,000	Hotels and Office Buildings 2
100,001 - and over	3

- (b) All loading facilities and maneuvering areas shall be located on-site with the use.
- (c) Sites shall be designed so that parking areas are separate from loading areas.

- (d) Adequate space shall be provided for stacking of vehicles waiting to load or unload, out of the public right-of-way and parking areas.
- (e) Backing of trucks from public right-of-way onto site for loading shall be allowed only at the ends of cul-de-sac streets.
- (f) No loading facilities shall be located at the front of the structure; loading facilities shall be permitted only in the rear and interior side yard areas.
- (g) Aisle width to loading docks shall be a minimum of fifty (50) feet width exclusive of truck parking area.
- (h) Loading facilities shall be adequately screened from the public view by use of walling, landscaping or building design.
- (i) Minimum aisle width adjacent to loading areas shall be sixteen (16) feet one way and twenty-six (26) feet for two way.
- (j) On structures within view of freeways, loading areas should be oriented away from public view from the freeway and from oncoming traffic along freeways. For example, structures located on the south side of Interstate 10 should have loading areas located on the east side of the building.
- (k) Loading area shall be designed as an integral part of the building's architecture.
- (l) Concrete pads shall be required at all loading bays.

Section EV4.0215 Site Lighting

- (a) Lighting shall be required on all new development for the purpose of providing illumination to ensure public safety and security. Lighting fixtures shall be functional, coordinated and visually attractive. Lighting shall be required at the following locations:
 - (1) Pedestrian walkways and plazas.
 - (2) Building entries, driveway entries and parking
 - (3) Hazardous locations, such as changes of grade and stairways, shall be well-lit with lower-level supplemental lighting or additional overhead units.
- (b) Lights shall be placed so as not to cause glare or excessive light spillage on neighboring sites.
- (c) All parking lot and driveway lighting shall provide uniform illumination at a minimum level of 0.5 foot candle.

- (d) All light fixtures are to be concealed source fixtures except for pedestrian-oriented accent lights.
- (e) Security lighting fixtures are not to project above the fences or roof line of the building and are to be shielded. The shields shall be painted to match the surface to which they are attached. Security lighting fixtures are not to be substituted for parking lot or walkway lighting fixtures and are restricted to lighting only loading and storage locations, or other similar service areas.
- (f) Exterior wall-mounted floodlights are expressly prohibited except for security lighting in areas as noted above.
- (g) All illuminated signs are to be internally illuminated.
- (h) Lighting of building faces is permitted.
- (i) The design of all lighting fixtures and their structural support shall be architecturally compatible with the surrounding buildings.
- (j) Walkway lighting fixtures shall have an overall height not to exceed twelve (12) feet.
- (k) Parking lot fixtures shall have an overall height not to exceed thirty (30) feet with the exception of property north of Palmetto Avenue and west of California Street, which parking lot fixtures located within these boundaries may have an overall height not to exceed forty (40) feet and shall meet the following: (1) the photometric level shall not exceed "zero" at the property line and, (2) no lighting shall be directed northerly toward the Santa Ana Wash.
- (l) When walkway lighting is provided primarily by low fixtures, there shall be sufficient peripheral lighting to illuminate the immediate surroundings to ensure public safety. Shatter-proof coverings are recommended on low-level fixtures.

Section EV4.0220 Site Utilities

- (a) Utility easements shall be required as needed through the development review process.
- (b) All existing and new utilities of 12KV or less within the project and along adjacent major arterials shall be installed underground. Where possible, all overhead lines greater than 12KV shall be placed along the rear property line, away from arterial highways.
- (c) All ground-mounted utility appurtenances, including but not limited to telephone pedestals, utility meters, irrigation system back-flow preventors, and transformers, shall be located behind the building setback line where possible, and shall be adequately screened through the use or combination of concrete or masonry walls, berming, and landscape materials.

- (d) All new development shall be required to install all necessary equipment for use of non-potable water as a condition of occupancy of on-site structures in accordance with the City's master-planned non-potable water system. "Necessary equipment" shall be as determined by the City of Redlands, and may include pipes, pumps, storage, and other facilities, including "backbone" or "distribution" lines.

Section EV4.0225 Compatibility Standards

- (a) Where a Special Development area abuts a residential district, an orderly transition of uses and building types should be established as follows:
 - (1) There should not be a drastic and abrupt building scale change; the transition from residential to more intensive building types should be gradual, in order to prevent massive structures from dominating and intruding upon neighborhoods. Smaller buildings should be located near the residential area, with the largest buildings farther away.
 - (2) Land uses should transition gradually from residential to more intensive uses. In placing uses within these transitional areas, consideration should be given to traffic generation, truck traffic, hours of operation, noise, light and glare, and other characteristics which might impact adjacent residential neighborhoods.
 - (3) Special consideration will be given to the Planned Development Envelope immediately west of the existing length of Karon Street between Lugonia Avenue and San Bernardino Avenue in providing for uses and building types compatible with the existing single family residential development to the east. Planned development in this area may include all uses permitted within the SD district except for those uses within the Commercial Industrial District and may also include single family residential uses to ensure maximum compatibility with a minimum disruption to the existing residential neighborhood.
- (b) Every use of land or building shall operate in conformity with the following performance standards:
 - (1) Vibrations: Every use shall be so operated that maximum ground vibration generated is not perceptible without instruments at any point in the boundary of the district in which the use is located.
 - (2) Noise: Every use shall be so operated that the maximum volume of sound or noise generated does not exceed sixty-five (65) decibels from 7:00 a.m. to 10:00 p.m. and forty-five (45) decibels from 10:00 p.m. to 7:00 a.m. in areas which abut residential land uses. Measurement of maximum sound or noise volume can be taken at any point on the lot line of the lot on which the use is located.
 - (3) Odor: Every use shall be so operated that no offensive or

objectionable odor is perceptible at any point on the boundary of the district in which the use is located.

- (4) Smoke: Every use shall be so operated that no smoke from any source shall be emitted of a greater density described in No. 2 on the Ringelmann Chart as published by the United States Bureau of Mines.
 - (5) Toxic Gases: Every use shall be so operated that there is no emission of toxic, noxious or corrosive fumes of gases.
 - (6) Emissions: Every use shall be so operated that there is no emission of dirt, dust, fly ash, and other forms of particulate matter.
 - (7) Radiation: Every use shall be so operated that there is no dangerous amount of radioactive emissions.
 - (8) Glare and Heat: Any operation producing intense glare or heat shall be conducted in a manner as to effectively screen the glare from view at any point on the lot line of the lot in which the use is located and to dissipate the heat so that it is not perceptible without instruments at any point on the lot line of the lot on which the use is located.
 - (9) Hazardous Materials: Every use shall be consistent with the provisions of the San Bernardino County Hazardous Waste Management Plan.
- (c) Where Neighborhood Commercial or Administrative/ Professional districts or uses abut residential districts or residential portions of Planned Developments, setbacks and buffering shall be established as follows:
- (1) Adjacent to residential parcel:
 - (A) No building proposed for neighborhood commercial or professional office use shall be constructed less than forty (40) feet from any adjoining property recommended for residential land use in the Specific Plan or Planned Development.
 - (B) A continuous visual screen of a minimum width of ten (10) feet shall be maintained adjacent to all interior property lines which abut residential lots. Screening may be provided by means of fences, decorative masonry walls, berms, changes in elevation, and/or plant materials. Where such screening has been provided on the residential side of the property line, this requirement may be reduced or waived by the reviewing agency.
 - (2) Adjacent to residential street:

Buildings shall be at least forty (40) feet from the ultimate right-of-way line along any street abutting a residential area, with the exception that structures of less than twenty (20) feet in height may encroach into the required setback area no more than fifteen (15) feet and may cover no more than fifty (50) percent of the required setback area.

- (d) Where General Commercial or Industrial uses or districts abut residential districts or residential portions of Planned Developments, setbacks and buffering shall be established as follows:

- (1) Adjacent to residential parcel:

No building proposed for commercial/industrial use shall be constructed less than forty (40) feet from any adjoining property recommended for residential land use in the Specific Plan or Planned Development.

- (2) Adjacent to residential street:

Buildings shall be at least forty (40) feet from the ultimate right-of-way line along any street abutting a residential area, with the exception that structures of less than twenty (20) feet in height may encroach into the required setback area no more than fifteen (15) feet and may cover no more than fifty (50) percent of the required setback area.

- (3) No building shall be constructed to a height greater than its distance from any adjoining property recommended for residential land use on the Specific Plan or Planned Development, unless the reviewing agency finds that approval of a waiver of this requirement will not adversely affect adjacent property. In no case shall industrial or commercial structures be so tall as to block natural sunlight from adjacent residential yards.

- (4) A landscaped area not less than thirty-five (35) feet in width shall be provided between a commercial or industrial structure and a residential district. Within this landscaped area a continuous visual screen of a minimum width of ten (10) feet shall be maintained adjacent to all interior property lines which abut residential lots. Screening may be provided by means of fences, decorative masonry walls, berms, changes in elevation, and/or plant materials. Where such screening has been provided on the residential side of the property line, this requirement may be reduced or waived by the reviewing agency.

- (e) Where Science Research Park uses abut residential districts, setbacks and buffering shall be established as follows:

- (1) Adjacent to residential parcel:

No building proposed for business/industrial use shall be constructed less than fifty (50) feet from any adjoining property recommended for residential land use.

(2) Adjacent to residential street:

Buildings shall be at least fifty (50) feet from the ultimate right-of-way line along any abutting a residential area.

(3) No building or structure shall exceed twenty-five (25) feet in height, as measured from top of curb, located within one hundred (100) feet of a residentially designated area, or thirty-five (35) feet in height if located more than one hundred and fifty (150) feet but less than three hundred (300) feet from a residentially designated area.

(4) A landscaped area not less than thirty-five (35) feet in width shall be provided between any structure and a residential district. Within this landscaped area a continuous visual screen of a minimum width of ten (10) feet shall be maintained adjacent to all interior property lines which abut residential lots. Screening may be provided by means of fences, decorative masonry walls, berms, changes in elevation, and/or plant materials. Where such screening has been provided on the residential side of the property line, this requirement may be reduced or waived by the reviewing agency.

(f) Outdoor storage areas, loading areas or refuse collection facilities shall be located no less than sixty (60) feet from any adjoining property zoned or used for residential land uses. Any materials stored adjacent to residential areas shall be totally screened by the wall or landscape screen provided.

(g) Additional landscaping, block walls, or increased setbacks may be required through the development review process to ensure land use compatibility.

(h) An acoustical analysis shall be required for new single or multiple family residential development proposed adjacent to freeways, highways, arterials, rail lines, and under flight paths. The analysis shall indicate the existing and proposed CNEL's (Community Noise Equivalency Levels) on the site, and the method(s) by which the noise is to be controlled or reduced to no more than 65 dB within the exterior living space, and 45 dB within the interior living space of the project.

Section EV4.0230 Refuse Areas

(a) All waste materials shall be stored in an enclosed area and shall be accessible to service vehicles. Wastes which might cause fumes or dust, or which constitute a fire hazard, or which may be edible by, or otherwise be attractive to, rodents or insects shall be stored only in closed containers in required enclosures.

- (b) A six (6) foot high masonry wall shall be constructed around all refuse collection areas. Trash enclosures shall have solid wood or metal doors.
- (c) Refuse collection areas shall not be constructed between the frontage street and the building line, or adjacent to or visible from freeways.

Section EV4.0235 Screening, Fences and Walls

- (a) All loading areas, mechanical equipment, outside storage, refuse areas, or other uses as determined by the reviewing agency shall be screened if located within seventy (70) feet of a front property line.
- (b) Any fence or wall that is constructed on a lot that contains an on-site slope shall be constructed at the top of the uphill side of such a slope.
- (c) No fence or wall and no landscaping which obstructs visibility shall be permitted within the corner cut-off areas defined in Section EV4.0120(c).
- (d) A six (6) foot high fence or wall shall be constructed along the perimeter of all areas considered by the reviewing agency to be dangerous to public health and safety. A six (6) foot high solid fence or wall shall be constructed around all open storage areas.
- (e) Open fences not to exceed four (4) feet in height shall be permitted within a required front yard area. For purposes of this section an open fence shall mean those types that are composed of wire mesh or wrought iron capable of admitting at least 90 percent of light.
- (f) Solid fences and walls not to exceed six (6) feet in height shall be permitted along side and rear property lines except that no solid fence or wall exceeding three (3) feet in height shall be located within any required front yard area.
- (g) Open fences as defined in paragraph (e) of this section that are over six (6) feet in height may be located in the rear half of the lot subject to a finding by the reviewing agency that such a fence will not constitute a nuisance to abutting property owners. Such fences up to sixteen (16) feet in height located within the buildable rear yard area of a lot and not less than ten (10) feet from any property line are exempt from the requirement.
- (h) All required screening from public view within the Industrial and Commercial Land Use designations or such uses within a Planned Development, such as storage spaces, loading docks, and equipment, shall be architecturally integrated with the surrounding building design through the use of concrete, masonry, or other similar materials. Solid walls within the buildable lot area shall not exceed a height of eight (8) feet from the highest finished grade. If the height of the wall is not sufficient, appropriate landscaping shall be required to screen the required areas from the freeway.
- (i) Fencing up to a height of six (6) feet may be permitted within any streetside

setback area when there is a demonstrated need for security as determined by the reviewing agency. All security fences which are within the streetside setback shall be constructed of wrought iron or similar materials with respect to quality and durability, shall transmit 90% light, and shall not obstruct views of landscaping. No chain link or barbed wire is allowed. Security fencing shall not create a sight distance problem for motorists entering or exiting the site.

Section EV4.0240 Architectural Guidelines

- (a) Floor Area Ratios provide unique design flexibility in determining whether a low building covering most of a lot is beneficial or whether a taller building covering a small portion of the lot is appropriate. Maximum Floor Area Ratios (FAR) for any use within the Specific Plan area shall be established as follows: (NOTE: Floor Area Ratio is determined by dividing total gross leasable area in square feet by total lot area in square feet. For example, a 20,000 square foot building on a 40,000 square foot lot yields a Floor Area Ratio of .5).

- (1) Office buildings: .6 of the total lot area.
- (2) Retail/Commercial buildings: .25 of the total lot area.
- (3) Regional mall: .4 of the total lot area.
- (4) Industrial buildings: .8 of the total lot area.
- (5) Hotels and Motels: .6 of total lot area

- (b) Floor Area Ratio Bonuses

The maximum floor area ratio may be increased as shown below. The total bonus shall not exceed fifty (50) percent of the permitted FAR. For example, an office building with a permitted FAR of .6 may be increased in floor area to a maximum FAR of .9 if several of the following amenities are provided. The permitted FAR bonus shall be determined by the reviewing jurisdiction, based upon its determination of the significance of amenities provided on the site.

- (1) Buildings providing structured parking: Bonus not to exceed twenty (20%) percent FAR.
- (2) Buildings providing amenity areas such as pedestrian arcades or plazas with significant visual features: Bonus not to exceed fifteen (15) percent of the permitted FAR. Any amenity area for which a bonus is granted must comply with the following criteria:
 - (A) The area must be in addition to that necessary to meet landscaping, park and setback requirements.
 - (B) Minimum size: The area must contain a minimum of 4,000

square feet.

- (C) Location: All amenity areas must be adjacent to, and approximately level with, a public street. The difference in grade between the amenity area and the street shall not be more than three (3) feet although this requirement is not intended to prevent; mounding or terracing of landscaping within the amenity area.
 - (D) Visibility: The interior of the amenity area shall be visible from the street for security purposes.
 - (E) Seating: One linear foot of bench or seating shall be provided for every 40 square foot of amenity area. Seating may be in the form of ledges.
 - (F) Sunlight patterns: The amenity area shall be able to receive direct sunlight on at least 30% of the surface area from 10 a.m. to 2 p.m. between the spring and fall equinox.
 - (G) Design and landscaping: At least one major element, such as artwork or water, shall be included in the amenity area. The dominant landscape elements shall be trees and turf. The amount of impervious surface should not exceed 40% of the amenity area unless unique design considerations are offered. Where artwork is used, minimum cost of public art shall be one (1%) percent of the overall cost of the project as stated on the building permit.
- (3) Additional landscaping, lakes, golf course or other open space amenities: Bonus not to exceed twenty (20) percent of the permitted FAR.
 - (4) Transportation management plan, including car and van pooling, flexible work scheduling, etc.: Bonus not to exceed fifteen (15) percent of the permitted FAR.
 - (5) Supportive uses within office and industrial buildings which provide services to employees, such as cafeterias, lounges, recreational areas, or child care facilities, may be determined to be exempt from maximum floor area ratio requirements. Determination of whether a proposed use qualifies for this exemption shall be made by the reviewing agency. This exemption may be granted only if the property owner enters into an agreement with the agency ensuring that such area remains in the exempt use.
- (c) The following guidelines shall apply to site design:
- (1) Developments should be designed to maximize any existing views of mountain ranges, open space, palm rows, or other view amenities.

- (2) Building placement should vary to include both parallel and skewed angles to the street plane in order to provide diversity and discourage continuous building facades along street frontage.
- (d) The following guidelines shall apply to building design:
- (1) Building construction and design shall be used to create a structure with equally attractive sides of high quality, rather than placing all emphasis on the front elevation of the structure. Architectural facade treatments will be required on all portions of the building(s) exposed to public views. Extra treatment may be given to the street frontages as long as the basic facade treatments are carried around the structure.
 - (2) Any accessory buildings and enclosures, whether attached to or detached from the main building, shall be of similar compatible design and materials as the main building.
 - (3) Large, continuous surface treatments of a single material shall be minimized. Changes in texture, relief or materials, and use of decorative features such as planters, varied roof lines, decorative windows and accent panel treatment should be encouraged.
 - (4) Pre-engineered metal buildings with corrugated exteriors are prohibited and other predominantly painted metal facade treatments are strongly discouraged.
- (e) Multiple Residential Site Design Guidelines
- (1) Buildings shall be designed in discrete units, not in one massive structure, with a non-linear facade along the street frontage.
 - (2) Sloping roofs of varying heights are encouraged.
 - (3) Site design shall include covered, internal parking areas, internal courtyards, and multiple entry points.
 - (4) Design elements shall include providing extensive open space and landscape buffering between buildings; variation in building elevations and configurations between buildings and variations in building heights; use of different building materials or combinations of different materials; and contrasting color schemes between projects.
 - (5) Recreational facilities shall be located and/or designed so as not to create nuisance to surrounding units or to impact adjacent properties. Sufficient setbacks, landscaping and berming between recreation facilities and surrounding units shall be provided to minimize noise and visual conflicts.

- (6) Roofing materials shall be concrete, tile or other imitation shake material.
- (f) Rooftop Treatment
- (1) Buildings shall be designed so that the architecture of the building adequately screens rooftop equipment from taller surrounding structures as well as residential uses by use of rooftop wells, parapet walls, or other means. Where possible, ground-mounted equipment shall be used in lieu of roof-mounted equipment.
 - (2) All roof mounted equipment, including but not limited to ducts, fans and vents, must be painted to match the roof color.
 - (3) Rooftop solar collectors, skylights and other potentially reflective elements shall be designed and installed so as to prevent glare and obstruction of views from surrounding uses and structures. If equipment projects above building mass, it shall be screened with an enclosure which is compatible with the building design.
 - (4) Rooftop radio, TV and microwave antennae and towers are prohibited unless approved by the Planning Commission.
 - (5) Where large, flat rooftops are located near taller surrounding structures, they shall be designed and landscaped to be visually attractive. The use of colored gravel (earthtones, arranged in patterns) and/or planter boxes is encouraged for this purpose.

Section EV4.0245 Landscaping Guidelines

- (a) Intent

Landscaping is of primary importance to the establishment of the design character of the East Valley Corridor. The landscape guidelines are intended to promote the establishment of compatible and continuous landscape development to enhance and unify the East Valley Corridor. Specifically, the guidelines are intended to enhance and preserve the existing site character, to minimize the adverse visual and environmental impacts of large buildings and paved areas, to promote the conservation of water, and to provide micro-climate control for energy conservation where possible.

Section EV4.0250 General Guidelines

- (a) The Landscape Plan required for submission by the applicant should exhibit a design concept. Plant materials should be used in a logical, orderly manner, helping to define spaces and complement adjacent architecture. A landscape plan showing the proposed landscaped areas, placement of landscape materials by type, number and size to include a depiction of the anticipated drip line of mature trees, irrigation system and use of the property shall be prepared by a landscape architect or a licensed nurseryman and

shall be submitted to the Community Development Department. The same plot plan submitted for the project which shows the parking layout or other requirements for the issuance of a building permit or planning approval may be used, provided all proposed landscaping is adequately detailed on the plot plan. Plans shall be submitted for approval to the Community Development Director or the Planning Commission, for approval whenever required under the provisions of this specific plan.

- (b) Landscape designs should be coordinated between the areas of a development. However, all areas within a project need not be identical. Different landscape themes may be utilized in larger developments to distinguish spaces from one another, yet these themes should be consistent with a unifying concept which establishes a cohesive design throughout the project.
- (c) In addition to the selection and distribution of plant materials, landscape plans should incorporate various site furnishings and features. Lighting, seating, paving, fountains, etc., should be considered integral components of the landscape plan and therefore included in the overall landscape concept.
- (d) The scale and character of the landscape materials to be selected should be appropriate to the site and/or architecture. Large-scale buildings or projects require large-scale landscaping treatments.
- (e) Existing landscaping elements, such as mature trees, should be incorporated into landscape plans. Specimen trees or groupings of existing trees can provide a new development with immediate character. They should be viewed as design determinants.
- (f) Landscaping incorporated into the building design through trellises, arbors, planters, atriums, etc., is encouraged and can often enhance the quality of a building.
- (g) The plant palette should be relatively limited and applied in groupings of similar species rather than a few plants of many different species planted together. The use of water conserving plantings, such as California natives and drought tolerant trees, shrubs and turfs is encouraged. A list of suggested drought resistant plant materials is included in Table 4-3.
- (h) Live plant materials should be used in all landscaped areas. The use of gravel, colored rock, bark and other similar materials are not acceptable as a sole ground cover material. (These materials may be used, however, in place of paving materials in functional activity areas such as patios or rear entry walks, or as groundcover for up to twenty percent (20%) of the total landscaped area).
- (i) New plant materials should be supplied in a variety of container sizes: for shrubs - five gallon sizes, and for trees - fifteen gallon containers, are preferred. The variety of tree sizes for the overall site landscaping shall

adhere to the criteria established in EV4.0255(A)(9).

- (j) Irrigation is required for all landscaped areas. Automatic systems are required. Plants should be watered and maintained on a regular basis. Irrigation systems should be designed so as not to overspray walks, buildings, fences, etc. The use of water conserving systems such as drip irrigation or moisture sensors for shrubs and tree planting is encouraged.
- (k) Landscape installation, in accordance with the approved plan, must occur prior to building occupancy. Where a development occurs in phases, all landscaping for each phase must be installed prior to occupancy of that phase.

Section EV4.0251 Outdoor Sales

All uses shall be conducted within a completely enclosed building, except as follows:

- (a) Off-street parking and loading areas;
- (b) Automobile service stations;
- (c) New and used auto sales;
- (d) Plants and vegetation associated with nurseries;
- (e) Open storage of materials and products and equipment when such storage is enclosed by a fence, wall, building or other means adequate to conceal such storage from view from adjoining property or the public street;
- (f) Restaurant - Outdoor dining area

Section EV4.0255 Landscape Requirements for Parking Area

- (a) The following standards shall apply to all parking areas accessible to the public, adjacent to roadways or exposed to public view from freeways, roadways or adjacent parcels:
 - (1) Landscaping shall be provided adjacent to and within parking areas to screen vehicles from view and to minimize the expansive appearance of parking areas. The landscaping should include predominantly fast growing trees in the parking areas to create summer shade. Accent trees may also be utilized in the landscape design of the parking areas for diversity and seasonal color.
 - (2) Landscaped berms, or a combination of berms, landscaping and/or wall treatments of sufficient height to substantially screen parking areas shall be provided between parking areas and right-of-way.

- (3) All double row parking spaces shall be separated by either a planter or planter boxes with an overall outside width of five (5) feet. Planters shall be enclosed by a six (6) inch continuous poured in place curb. The curb shall be included in the measurement of the overall width of the planter. The Community Development Director, may allow breaks or gaps in the planter for pedestrian access and drainage purposes only.
- (4) Each unenclosed parking area shall provide a perimeter landscaped strip a minimum of five (5) feet in width where the parking area adjoins a side or rear property line. Curbs, mow strips, or any other type of paved surface shall not be included in the measurement of the overall width of the planter. The perimeter landscaped strip may include any landscaped yard or landscaped area otherwise required and shall be continuous, except for required access to the site or parking area.
- (5) All plant material shall be sized so that the landscaping has an attractive appearance at the time of installation and a mature appearance within three years.
- (6) Tree species should be selected with root growth habits that will not cause damage to sidewalks, curbs, other similarly paved surfaces, or such tree species should be sited away from such paved areas.
- (7) Trees with a trunk height of not less than six (6) feet shall be installed in the planters at each end of an aisle, at three (3) space intervals throughout the parking area, and at twenty (20) foot intervals along the periphery of the parking area. Within parking areas, trees may be clustered in groups to achieve a more natural setting provided the total number of trees meets the previous planting requirements.
- (8) At least fifty percent (50%) of the trees shall be an evergreen variety and shall be evenly distributed throughout the parking area.
- (9) At least fifty percent (50%) of the trees shall be 15 gallon in size, twenty-five percent (25%) shall be 24-inch box in size, and twenty-five percent (25%) shall be 36-inch box in size. All trees shall meet the following minimum caliper sizes. If the caliper size cannot be met at the container size then the developer shall increase the container size to meet the required caliper.

15-gallon:	3/4" to 1"
24-inch box:	1-1/4" to 1-3/4"
36-inch box:	2-1/2" to 2-3/4"
- (10) Planter areas shall also contain ground cover and/or flowering shrubs. Drought tolerant planting is suggested so that applicant/developer can comply with the Water Conservation in Landscaping Act of 1990.

- (11) Where automobile bumpers overhang landscaped planters, two (2) feet of clear area unobstructed by trees or shrubs shall be provided for overhang.
 - (12) Large parking areas shall be broken up into sections containing no more than 200 vehicles, with landscaped planters at least eight (8) feet in width established between sections.
 - (13) A landscaped island shall be provided for every twenty (20) parking spaces.
 - (14) Landscaped islands, interstall planters and periphery landscaping, together, shall total at least seven (7) percent of the total parking area.
 - (15) All trees identified on the landscape plan are to be maintained and the trimming or maintenance of them shall serve the purpose to bring them into a full canopy-type configuration. If applicant/developer fails to maintain and trim said trees to allow for full canopy-type configuration, applicant/developer shall be in violation of its conditions of approval and subject to enforcement as allowed by law.
 - (16) All landscape planters that are ten (10) feet or less in width shall utilize measures such as root barriers or other deep watering system to minimize heaving of parking area pavement and curbs by tree roots.
 - (17) No landscaped area having a width of less than five (5) feet shall be considered in the minimum landscaping requirement.
- (b) Where parking areas not accessible to the public are completely screened from public view by building placement or a combination of walling and landscaped buffers, landscaping requirements within the parking areas, other than perimeter landscaping, may be reduced at the discretion of the reviewing agency.
 - (c) Pedestrian walkways shall be provided within parking areas to destination points.
 - (d) Applicant/developer should preserve mature trees in their place, where possible, by designing the project's site plan around said mature trees. In cases where existing mature trees are removed for new development, an additional number of new trees, other landscaping, and/or additional mitigation measures shall be required beyond the guidelines established in this section.
 - (e) Final landscape plans, irrigation system plans, tree preservation techniques and preservation guarantees shall be reviewed and approved by the Community Development Director prior to the issuance of a building permit.

Plans shall be in conformance with the Water Conservation in Landscaping Act of 1990.

- (f) When a unified landscape plan is proposed for a project site in excess of ten (10) acres, that complies with the requirements of EV4.0260(a) the project site may be exempt from the requirements of EV4.0255(a) at the discretion of the reviewing agency.

Section EV4.0260 Other Site Landscaping Provisions

- (a) A minimum portion of the site shall be landscaped. No landscaped area having a width of less than five (5') feet shall be considered in the minimum landscaping requirement. This minimum landscaping requirement will be established as follows:

Automobile Dealerships	10%
Industrial uses	15%
Commercial uses	20%
Science Research Park District Uses	20%
Residential uses	35%

- (b) In addition to required landscaping, landscaping may be provided in lieu of ten (10%) percent of the total number of parking spaces required, provided the landscaping is arranged such that parking may be installed at a later date if such a demand arises, and further provided, that the owner agrees to provide such parking at the request of the reviewing agency.
- (c) Variation of landscape coverage may be permitted for individual parcels within planned developments when the development as a whole meets the required coverage and the plan is consistent with the goals and policies of the Specific Plan.
- (d) The goals and policies of the Specific Plan provide for the creation of significant landscaped open space areas at the entry and exit points of the East Valley Corridor. The following requirements are intended to meet these objectives:
 - (1) Special open space edge treatments shall be provided along Interstate 10 from Mountain View Avenue to California Street, and along State Route 30 from the Santa Ana River to San Bernardino Avenue.
 - (2) The open space edge treatments shall incorporate landscaping and associated design elements for areas visible from the freeway. These elements may include open lawn areas, canopy trees within parking areas, lakes, fountains, open stages and amphitheaters, art in public places, citrus groves, and similar open space areas.
 - (3) A building setback of 100-feet shall be maintained from the freeway right-of-way line within these special open space edge treatment

areas, unless the reviewing authority finds that such a setback would severely constrain the reasonable use of a parcel due to its configuration or location, in which case alternative open space treatments may be determined appropriate.

- (4) In creating this open space edge treatment, credit may be given towards, the minimum percent of landscaping required within the development, as specified in (c) of this Section.
- (e) The landscaped area requirement may be reduced by a maximum of five (5) percentage points where public art is to be displayed in a setting which enhances pedestrian spaces and building architecture. Minimum cost of public art shall be one (1%) percent of the overall cost of the project as stated on the building permit.
- (f) When the floor area, outdoor sales area, or covered storage area ("use") of any site developed prior to September 6, 1989 is increased ten percent or more, the minimum percentage of added landscaping on site shall be based on the following formula: $1.25 \times (\text{percent of use expansion}) \times (\text{landscape percentage from Section (a)}) \div 100$. All additions subsequent to September 6, 1989 shall be totaled in determining the ten percent calculation. The maximum landscape requirement shall not exceed that required in Section (a). When the use is increased cumulatively fifty percent or more after September 6, 1989, landscaping shall be provided as required by this division in Section (a).
- (g) As an alternative to providing the on-site landscaping required by this division, the Commission may require the applicant to fund the cost of installation and maintenance of off-site landscaping on nearby public property based upon the Commission finding that such off-site landscaping provides better aesthetic treatment for the developed site. The funding agreement shall be subject to review and approval of the Community Development Department Director and City Attorney.

Section EV4.0265 Planting Guidelines

- (a) **Parkways**
 - (1) **General Provisions**
 - (A) Existing parkways in the public right-of-way should be preserved and maintained. In areas where they are absent, a parkway (six to eight feet) should be established adjacent to the street curb.
 - (B) In addition to required street trees, all parkways should be planted with a low growing turf grass or ground cover which shall be maintained regularly so as not to impede pedestrian movement across it.

- (C) Existing mature street trees in the parkways should be protected and maintained.

(2) Street Trees

- (A) Required street trees on Special Landscaped Streets are to be consistent throughout the planning area. Existing parkway trees, other than the designated street tree, should be replaced over time with the designated street tree. For landscape concepts and required planting materials, on Special Landscaped Streets, see Section EV4.0125.

- (B) Required street trees shall exhibit longevity, cleanliness, disease and insect resistance, and adaptability to local soils and climate. Suggested street trees are listed in Table EV4.1.

- (C) Street trees shall be planted not less than:

- 25 feet back of beginning of curb returns at intersections.
- 10 feet from lamp standards.
- 10 feet from fire hydrants.
- 10 feet from meters.
- 10 feet from underground utilities.

- (D) Street trees shall have a minimum caliper of 1" trunk diameter measured 12" above the base and minimum container size of fifteen (15) gallon. Palm trees shall have a minimum brown trunk height of ten (10) feet.

- (E) Street trees in residential areas shall be planted as follows:

- (I) Lot/unit on cul-de-sac -- 1 tree per street frontage.

- (II) Interior lot/unit -- 2 trees per street frontage.

- (III) Corner lot/unit -- 1 tree per 30 feet of street frontage or portion thereof.

- (F) In commercial and industrial areas, street trees shall be planted at the equivalent of one (1) tree per thirty (30') feet of frontage.

(3) Palm Tree Planting and Maintenance Guidelines

The following guidelines are provided to assist in new planting and transplanting of large palm trees in the planning area, including *Washingtonia robusta* (Mexican fan palm) and *Washingtonia filifera* (California fan palm).

- (A) Care should be taken in excavating, planting, or working near

existing utilities or irrigation systems. Developer should check existing utility drawings and as-built plans for existing utility and irrigation locations.

- (B) New palms to be planted in the area should be grown under climatic conditions similar to the East Valley Corridor area. All palms selected for planting should be inspected for health, vigor, and overall form.
- (C) Planting of palms should not begin until May 1 nor after October 1.
- (D) Defronding and Tying:
 - (i) In preparing palm trees for relocation, all dead fronds should be removed and the entire trunk skinned clean to the height of the green fronds. Care should be taken to prevent injury to the trunk of the tree. Green fronds below a horizontal position shall be neatly cut off, leaving a 4" stub.
 - (ii) All remaining fronds above horizontal should be lifted up and tied together in two locations around the crown in an upright position. Due caution should be taken not to bind or injure the crown. A lightweight cotton rope or cord, not less than 1/4" diameter, should be used in tying up the fronds; wire should not be used. After tying, the tips of the fronds should be 'hedged-off' above the crown approximately 1/4 to 1/2 of the frond length. Defronding and tying work should be completed prior to digging the rootball.
- (E) Digging the Rootball:
 - (i) When digging out the rootball, no excavation should be done closer than 24" to the trunk at ground level and the excavation should extend below the major root system to a minimum depth of six (6) feet. The bottom of the rootball should be cut off square and perpendicular to the trunk below the major root system. Under no conditions should the contractor cut down the size of the rootball in width or depth.
 - (ii) Care should be taken not to free-fall, drag, roll or abuse the tree or put a strain on the crown at any time. A protective device should be used around the trunk of the tree while lifting and relocating so as not to scar or skin the trunk in any way. This device should consist of either a rubber or leather sling made out of timbers sufficiently sized to withstand the cable/choker

pressure. At no time should trees be balled out and laid on the ground with rootball left exposed to direct sunlight and air. The rootball should be kept moist and shaded at all times.

(iii) Palms should not be stockpiled for replanting.

(F) Planting of Palms

(i) Excavation for planting should include the stripping and stacking of all acceptable topsoil encountered within the areas to be excavated for the tree holes.

(ii) All excavated holes should have vertical sides with roughened surfaces and should be of a size that is twice the diameter and 24" minimum to 4' maximum deeper in the ground than they originally stood.

(iii) Center palm in pit or trench; align with existing palms.

(iv) Set palm plumb and hold rigidly in position until soil has been tamped firmly around ball or roots.

(v) Palms should be backfilled with equal parts of specified backfill and native soil thoroughly mixed together.

(vi) Root growth stimulant should be applied when the backfilling is between half to two-thirds up the rootball. Application rate should be one (1) quart for trees less than thirty (30) feet in height, two (2) quarts for trees thirty (30) feet and larger in height. Stimulant should be poured full strength equally distributed around the rootball, and water jetted into the backfill.

(G) Palm Backfill Soil

The import planting soil can consist of either fine sand or loamy sand textured soil and silt clay content of this soil shall not exceed 20% by weight with a minimum 95% passing the 2.0 millimeter sieve. The sodium absorption ratio (SAR) should not exceed 6 and the electrical conductivity (ECe) of the saturation extract of this soil should exceed 3.0 milliosmol per centimeter at 25 centigrade. The boron content of this soil should be no greater than 1 PPM as measured on the saturation extract.

(H) Fertilizer

(i) Root Growth Stimulant: Stimulant should be Vitamin B-1 as manufactured by Cal-liquid, Cooke, Chican, Ortho,

or equivalent.

- (ii) Fertilizer should not be used at time of planting. After 4 months use a light application of 20-10-5 approximately 1/2 lb. nitrogen per tree cultivated into the soil.
 - (I) Tree irrigation should be monitored by use of irrometers, installed according to manufacturer's specifications, with two irrometers per tree.
 - (J) Following planting work, all remaining excavation shall be backfilled and compacted. Burying of debris in holes should not be permitted. Excess soil and debris from the relocation work should be disposed of. Plant materials disturbed by excavating, planting, or replanting should be replaced.
 - (K) Maintenance should include weekly water management to include soil probing and observation of soil moisture sensing devices and palm tree pruning. Pruning should be done with reciprocal saws (chain saws should not be allowed). Saw blades should be sterilized between each tree with 50% household bleach and 50% water for ten minutes. Pruning should be done to maintain a neat appearance.
- (b) Site Landscaping
- (1) Trees shall be planted in areas of public view adjacent to structures, either singly or in grove effect, at the equivalent of one (1) tree per thirty (30) linear feet of building area.
 - (2) Site landscaping should be used to define entrances and walkways, to screen parking and loading areas, for micro-climate control, and to enhance views of the site from inside building.
 - (3) Wall expanses should be protected from graffiti by adjacent plantings of shrubs or vines.
 - (4) Suggested accent trees providing seasonal variation and color are listed in Table EV4.2.
 - (5) Seasonal plantings of colorful flowers are encouraged to accent entrances and walkways.
- (c) All landscaped areas shall be served by a total coverage, automated irrigation system. Where appropriate, drip irrigation shall be encouraged.
- (d) Graded areas proposed for development in a later phase shall be planted with annual grasses and shall be maintained in a weed-free condition until development occurs, if said phase will not begin construction within six (6) months of completion of previous phase.

Section EV4.0270 Landscape Maintenance

- (a) Property owners are responsible for the installation and maintenance for landscaping on their on-site landscaped area and the contiguous planted right-of-way, except where landscaping in the public right-of-way is maintained by a Landscape Maintenance District.
- (b) Any damage to the landscaping and irrigation systems shall be corrected within thirty (30) days from date of damage.
- (c) Any replacement landscaping within the street setback must be replaced with plant materials that are equal to the size, form and species of the adjacent existing plant materials.
- (d) All trees and plant material, when established, shall be trimmed so that they shall not encroach upon the sidewalk or street so as to impede or interfere with vehicle or pedestrian traffic, or obstruct the illumination from any streetlight to the street or sidewalk.
- (e) In residential tracts, the Developer shall guarantee street trees for a minimum of one year after acceptance of the tract and until 80% of the units are occupied. Maintenance of all trees shall become the responsibility of the homeowner upon occupancy.
- (f) All plantings shall be maintained in healthy growing condition. Fertilization, cultivation and pruning are to be carried out on a regular basis.
- (g) Dead or dying plants shall be removed and replaced as quickly as possible (30 days maximum except where seasonal conditions prohibit).
- (h) All plantings are to be irrigated as often as necessary to maintain healthy growing conditions.
- (i) Irrigation systems are to be kept in proper working condition. Adjustment, repair and cleaning are to be done on a regular basis.
- (j) Tree guys, stakes, etc., shall be adjusted on a regular basis to maintain neat appearance and to prevent damage to trees.

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TABLE 4-1
EAST VALLEY CORRIDOR SPECIFIC PLAN
LIST OF
RECOMMENDED STREET TREES

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
Albizia julibrissin	Silk Tree
Cinnamomum camphora	Camphor Tree
Cupaniopsis anacardioides	Carrot Wood Tree
Eucalyptus sideroxylon	Red Iron Bark
Jacaranda acutifolia	Jacaranda
Koelreuteria bipinnata	Chinese Flame Tree
Lagerstroemia indica	Crape Myrtle
Liquidambar styraciflua "Palo Alto"	Sweet Gum
Liquidambar styraciflua "Burgundy"	Sweet Gum
Liriodendron tulipifera	Tulip Tree
Magnolia grandiflora "Majestic Beauty"	Southern Magnolia
Melaleuca quinquenervia	Cajeput Tree
Pinus canariensis	Canary Island Pine
Pinus halepensis	Aleppo Pine
Pistacia chinensis	Chinese Pistache

BOTANICAL NAME

COMMON NAME

Platanus acerifolia

London Plane Tree

Prunus cerasifera "Atropopurea"

Purple Leaf Plum

Schinus terebinthifolius

Brazilian Pepper

Washingtonia filifera

California Fan Palm

Washingtonia robusta

Mexican Fan Palm

NOTE: Additional trees may be used subject to approval.

TABLE 4-2

EAST VALLEY CORRIDOR SPECIFIC PLAN

LIST OF

RECOMMENDED ACCENT TREES

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
Albizia julibrissin	Silk Tree
Alnus rhombifolia	White Alder
Arecastrum romanzoffianum	Queen Palm
Brachychiton acerifolius	Flame Tree
Brachychiton populneus	Deodar Cedar
Cupaniopsis anacardioides	Carrot Wood Tree
Eucalyptus citriodora	Lemon-Scented Gum
Eucalyptus nicholii	Peppermint Gum
Eucalyptus polyanthemus	Silver Dollar Gum
Eucalyptus rudis	Desert Gum
Eucalyptus sideroxylon	Red Ironbark
Ficus nitida	Indian Laurel Fig
Geijera parviflora	Australian Willow
Jacaranda mimosifolia	Jacaranda
Koelreuteria bipinnata	Chinese Flame Tree
Lagerstroemia indica	Crape Myrtle
Liquidambar styraciflua	Sweet Gum
Liriodendron tulipifera	Tulip Tree
Orange Tree	
Pinus canariensis	Canary Island Pine

BOTANICAL NAME

COMMON NAME

Pinus eldarica

Mondell Pine

Pinus halepensis

Aleppo Pine

Pinus roxburghii

Roxburg Pine

Pistaccia chinensis

Chinese Pistache

Platanus acerifolia

London Plane Tree

Podocarpus gracilior

Fern Pine

Prunus cerasifera

Purple Leaf Plum

Schinus terebinthifolius

Brazilian Pepper

Tristania conferta

Brisbane Box

NOTE: Additional trees may be used subject to approval.

TABLE 4-3

EAST VALLEY CORRIDOR SPECIFIC PLAN

SUGGESTED DROUGHT-RESISTANT PLANT MATERIALS LIST
FOR LANDSCAPED AREAS

I. Foliage plants

BOTANICAL NAME

COMMON NAME

Agapanthus

Arbutus unedo

Strawberry Tree

Centaurea gymnocarpa

Dusty Miller

Dodonaea viscosa

Hopseed Bush

Elaeagnus

Ilex species

Leptospermum scoparium

Ligustrum "Texanum"

Photinia fraseri

Pittosporum

Raphiolepis indica

Rhamnus alaternus

Italian Buckthorn

Rhus ovata

Sugar Bush

Viburnum species

Xylosma congestum

II. Flowering Plants

BOTANICAL NAME

COMMON NAME

Callistemon citrinus

Lemon Bottlebrush

Cassia artemisioides

Feathery Cassia

Cistus

Rockrose

Coreopsis verticillata

Fremontodendron

Lantana

Lavandula

Nerium oleander

Plumbago auriculata

III. Vines

BOTANICAL NAME

Bougainvillea

Campsis

Solanum jasminoides

Tecomaria capensis

IV. Ground Covers

BOTANICAL NAME

Baccharis pilularis

Ceanothus

Cotoneaster

Gazania

Grevillea

Hypericum calycinum

Rosmarinus officinalis

Santolina chamaecyparissus

Flannel Bush

Lavender

Oleander

Cape Plumbago

COMMON NAME

Trumpet Creeper

Potato Vine

Cape Honeysuckle

COMMON NAME

Coyote Bush

Wild Lilac

Creeping St. Johnswort

Rosemary

Lavender Cotton

Section EV4.0275 Site Grading

- (a) Effective site grading can be utilized to enhance the architecture, screen parking and loading areas and help provide for privacy or adjoining areas.
 - (1) Earth berms adjacent to public rights-of-way shall be constructed to a smooth, rounded, continuous natural contour, with slope not to exceed 3:1. Construction of berms shall not interfere with normal drainage of water anywhere on the site.
 - (2) Industrial or commercial sites located adjacent to residential areas should not be at a higher grade than residential uses.
- (b) All sites shall drain adequately to off-site collectors without interfering with adjacent properties. All site grading shall be designed to provide positive drainage without leaving standby water.
- (c) No cut or fill slopes of any type shall be steeper than 3:1, with smooth vertical transitions. Where space limitations demand, terracing with approved retaining walls shall be utilized.
- (d) Where retaining walls are required, they shall be of a material compatible with the building architecture.
- (e) Berms, channels, swales, etc., shall be graded in such a way as to be an integral part of the grading and paved surface designed with smooth vertical transitions between changes in slope.
- (f) Adequate diking of outdoor storage areas shall be provided where any chemicals or other substances used or kept on site present any potential risks downstream from the site.
- (g) All site grading shall be designed to meet the following standards:

	<u>Minimum Slope</u>	<u>Maximum Slope</u>
Planting areas	2%	3:1 (33%)
Parking lot pavement (1% with P.C.C. flow lines)	2%	4%
Driveways, access drives 2% (.6% with P.C.C. flow lines)	2%	6%
Pedestrian plazas	1%	2%
Pedestrian walkways	1%	8%

Section EV4.0280 Construction Phase Requirements

- (a) In order to minimize soil erosion by water and wind, practical combinations of the following procedures shall be used:
 - (1) The permanent landscaping shall be installed within 60 days after substantial completion of the structural improvements on a lot.
 - (2) Erosion control measures shall be required for imported fill subject to erosion, on construction projects over six months duration.
- (b) The Developer is responsible for ascertaining the location of underground utilities and for protecting them during construction.
- (c) All construction storage and equipment yards shall be located on the site in a manner to minimize their impact on adjacent properties and public streets.
- (d) Construction sites shall be maintained in a neat and orderly manner. All trash shall be kept in enclosed containers and removed frequently.
- (e) Construction access shall be coordinated with and approved by the reviewing authority. Special care shall be taken to protect existing pavements and landscaping from damage. Dirt and mud shall be removed promptly from adjacent streets and sidewalks.
- (f) At the end of the construction period, by phase, the Developer shall submit to the reviewing authority reproducible copies of record drawings (as-built) showing the actual locations of all underground utilities and irrigation systems.

Section EV4.0285 Maintenance

- (a) All owners or occupants of property shall maintain all buildings, drives, parking lots, or other structures located upon said property in good and sufficient repair and shall keep such premises painted, windows glazed, paving swept and otherwise maintain the property in an aesthetically pleasing manner.
- (b) Any structure, driveway or parking lot surface which is damaged by the elements, vehicles, fire or any other cause shall be repaired as promptly as the extent of damage will permit.
- (c) Grounds shall be maintained in a safe, clean and neat condition free of rubbish and weeds. Roads and pavements shall be kept true to line and grade in good repair. Drainage ditches shall be kept clean of any obstacles.

Section EV4.0290 Signs

The provisions of the Redlands Municipal Code governing signs shall apply to development proposed within the boundaries of this Specific Plan and for any development located within the City's Sphere of Influence in the East Valley Corridor area requesting land-use entitlements or other approvals from the City.

The following criteria of the Redlands Municipal Code shall apply to the land use districts contained in this Specific Plan:

EV CSP Land Use District	Applicable Redlands Municipal Sign Code Criteria
Single Family Residential	Sign criteria for Residential Districts shall apply
Multiple Family Residential-3000	Sign criteria for Residential Districts shall apply
Multiple Family Residential-2500	Sign criteria for Residential Districts shall apply
Administrative Professional	EV-AP Administrative Professional
Neighborhood Commercial	C-2 Neighborhood Commercial
General Commercial	C-4 Highway Commercial
Regional Commercial	Sign criteria for the C-4 Highway Commercial district shall apply
Commercial Industrial	C-4 Highway Commercial
Regional Industrial	M-2 General Industrial
Special Development	Sign criteria for land use districts proposed within a Planned Development shall apply as shown in this table
Public Institutional	O Open Land
Open Space	O Open Land
Science Research Park	M-P Planned Industrial