
Development
Plan
W 138-49

ETIWANDA HIGHLANDS

ETIWANDA/SAN SEVAINE
PLANNING AREA
County of San Bernardino

for:
The Caryn Company

by:
Land/Plan/Design Group

ETIWANDA HIGHLANDS

ETIWANDA/SAN SEVAINE PLANNING AREA
San Bernardino County, California

For :

The Caryn Company (DiIorio family owned)
2834 Terry Road
Laguna Beach, California 92651

By:

Land/Plan/Design Group
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Revised - June 1, 1988.
September 1, 1988

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* Indicates text or exhibits revised September 1, 1988

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SUPPLEMENTAL
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(In sleeves)

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* Indicates text or exhibits revised September 1, 1988

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* Indicates text or exhibits revised September 1, 1988

I. INTRODUCTION

A. LEGAL DESCRIPTION

The west 1/2 of the east 1/2 and the east 1/2 of the west 1/2 of Section 22, Township 1 north, range 6 west, San Bernardino base and meridian, according to the official plat of said land.

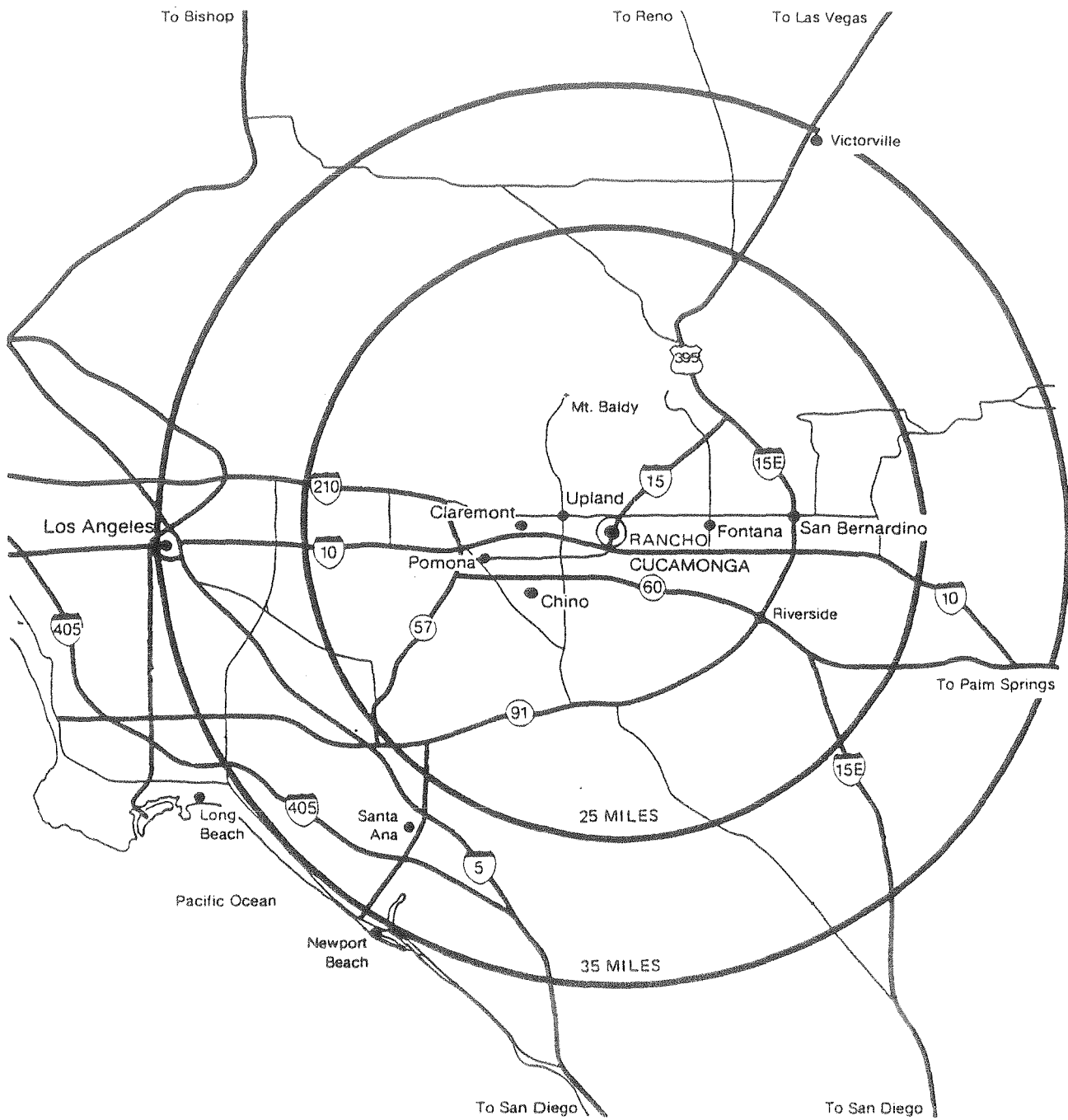
Also excepting therefrom that certain strip of land 80 feet in width, as described in that certain grant deed executed by Samuel J. Wassem, et ux., to the Metropolitan Water District of Southern California, a Public Corporation, recorded July 30, 1969 in book 7276, page 603, official records.

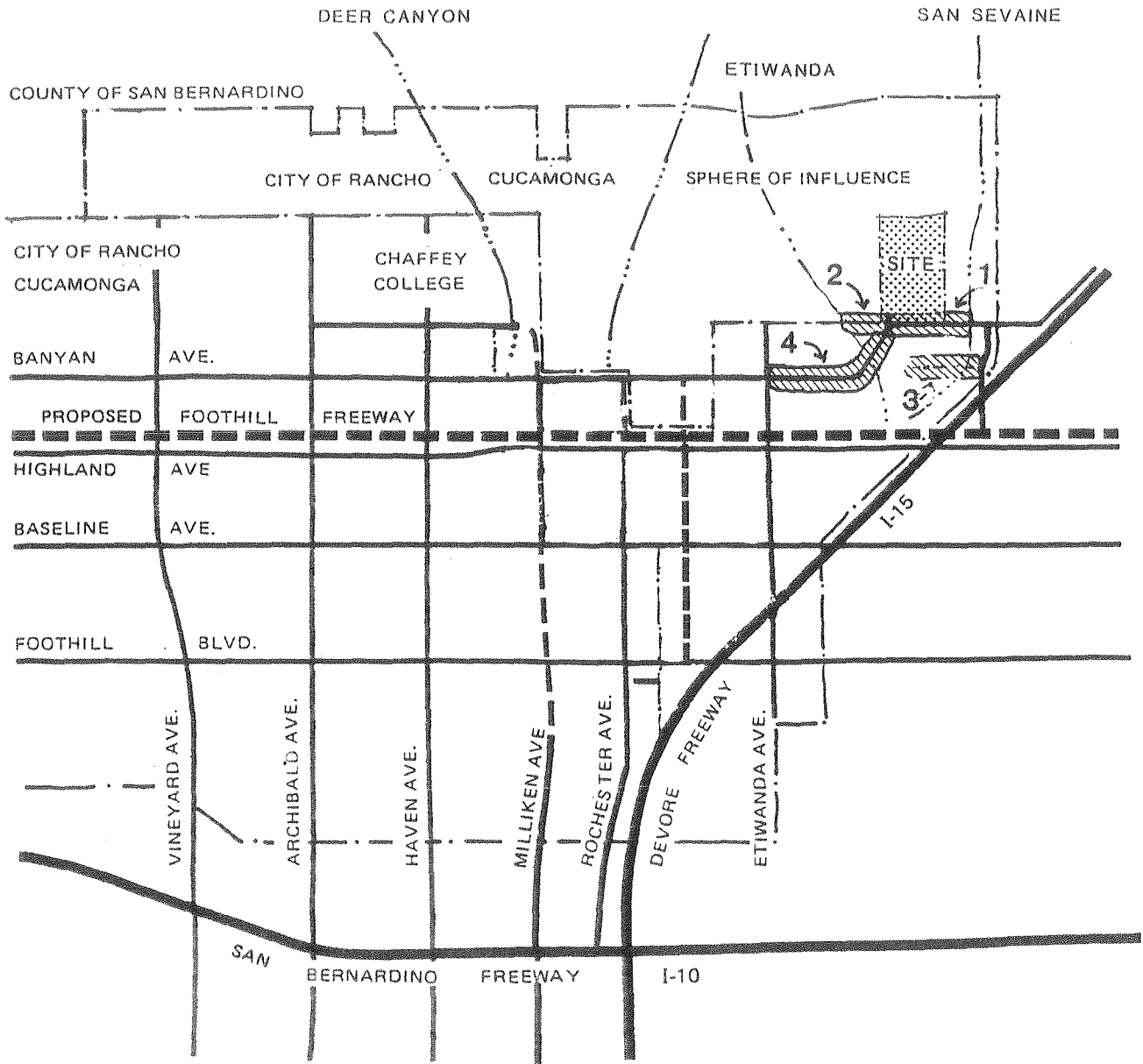
Also excepting therefrom those certain strips of land 330 feet in width, as described in that certain grant deed executed by Samuel J. Wassem, as trustee to Southern Surplus Realty Co., a California Corporation, recorded April 27, 1973 in book 8171, page 84, official records.

Also excepting the south 30 feet thereof.

Also excepting an undivided 1/3 interest in all minerals, oil, gas and hydrocarbon gas as reserved in the deed from Alfred D. Devey, an unmarried man, to Fay Claridge Main, an unmarried woman, recorded May 31, 1950 in book 2583, page 129, official records.

Exhibits 1, 2 and 3 on the following pages show the general location of the property within the region and a base map for the site.





NOTE: AREAS 1,2,3 &4 NOTED ABOVE ARE LOCATIONS FOR POSSIBLE USE OF \$ 500,000 DEVELOPER CONTRIBUTION

EXHIBIT 2

VICINITY MAP

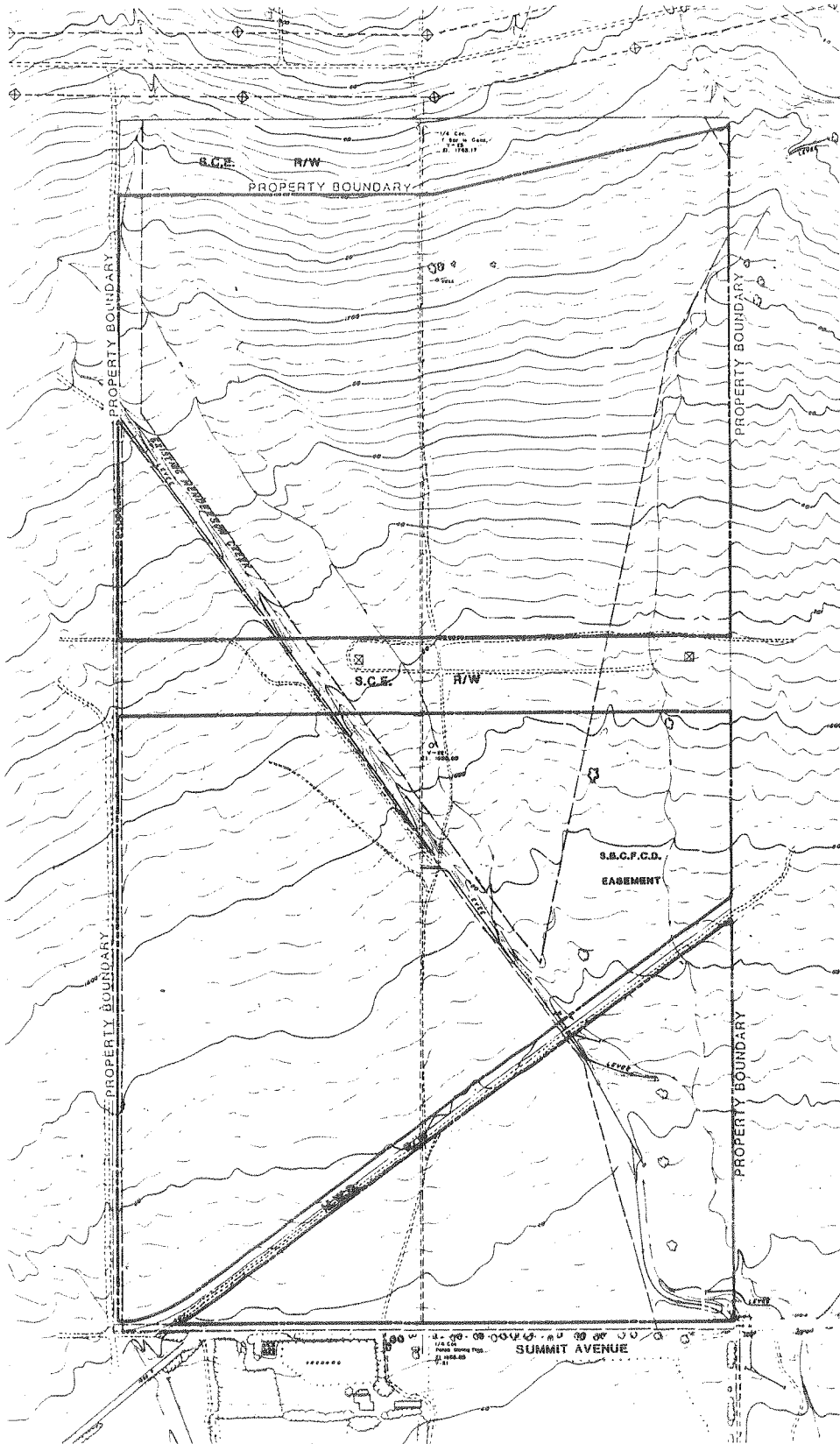
SAN BERNARDINO COUNTY, CALIFORNIA



**ETIWANDA / SAN SEVAIVE
PLANNING AREA**



THE CARYN COMPANY
Land/Plan/Design Group



NOTE

SITE SLOPES GENTLY,
RANGING FROM 3%
TO 8%.

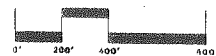
EXHIBIT 3

BASE MAP

SAN BERNARDINO COUNTY, CALIFORNIA



NORTH



ETIWANDA / SAN SEVAINE
PLANNING AREA

THE CARYN COMPANY
Land/Plan/Design Group

B. PROJECT DESCRIPTION

The project site includes approximately 302 acres located on alluvial wash, gently sloping at approximately 3% to 8%. The site is situated in the east portion of the West Valley Foothills Community Plan adjacent to the City of Rancho Cucamonga. The San Gabriel mountains are located to the north and provide an impressive background to the site.

The site is defined by Upper Summit Avenue to the south, San Sevaine wash to the east, the Southern California Edison northerly corridor, and the extension of Wardman Bullock to the west.

The proposed Planned Unit Development (P.U.D.) is a single-family residential community, containing approximately 546 dwellings on lots approximately 9,000 to 18,000 square feet.

The main project entry/collector road will run adjacent to the San Sevaine wash and provide dramatic views into the hundreds of acres of wash open space for residents and visitors to this site. The P.U.D. is preserving approximately 37 acres of open space within the site along San Sevaine wash to preserve the natural character of the site.

Most homes are on cul-de-sacs or closed loop streets which connect to controlled access collector loop streets. The roads abutting the P.U.D. have been sized to accomodate possible future development to the north, west and east of the P.U.D. All streets will be dedicated public streets.

Exhibit 4 on the following pages illustrates the proposed land use plan.

C. PROJECT PHASING

The proposed P.U.D. is divided into five (5) phases for the area north of the central SCE corridor and ten (10) phases for the area south of the corridor. Improvements, including roads and other infrastructure, will be phased to coincide with actual development. Two tentative tract maps for the site are filed concurrently with this P.U.D.. The area north of the central SCE corridor is filed as tract 13564 and the

area south of the corridor is filed as tract 13565.

Exhibit 5 on the following pages indicates the proposed phasing plan.

D. PROJECT TABULATION

The project tabulation indicates the total acres within the site boundary along with the acres for the various rights of way. The total number of dwelling units permitted within the site (546) has been generated from this tabulation.

Table I reflects the project tabulation.

E. STATISTICAL SUMMARY

The statistical summary identifies by phase for each of the tracts, 13564 and 13565, the total population density, dwelling units, density, building, open space and road coverage.

Table II reflects the statistical information.

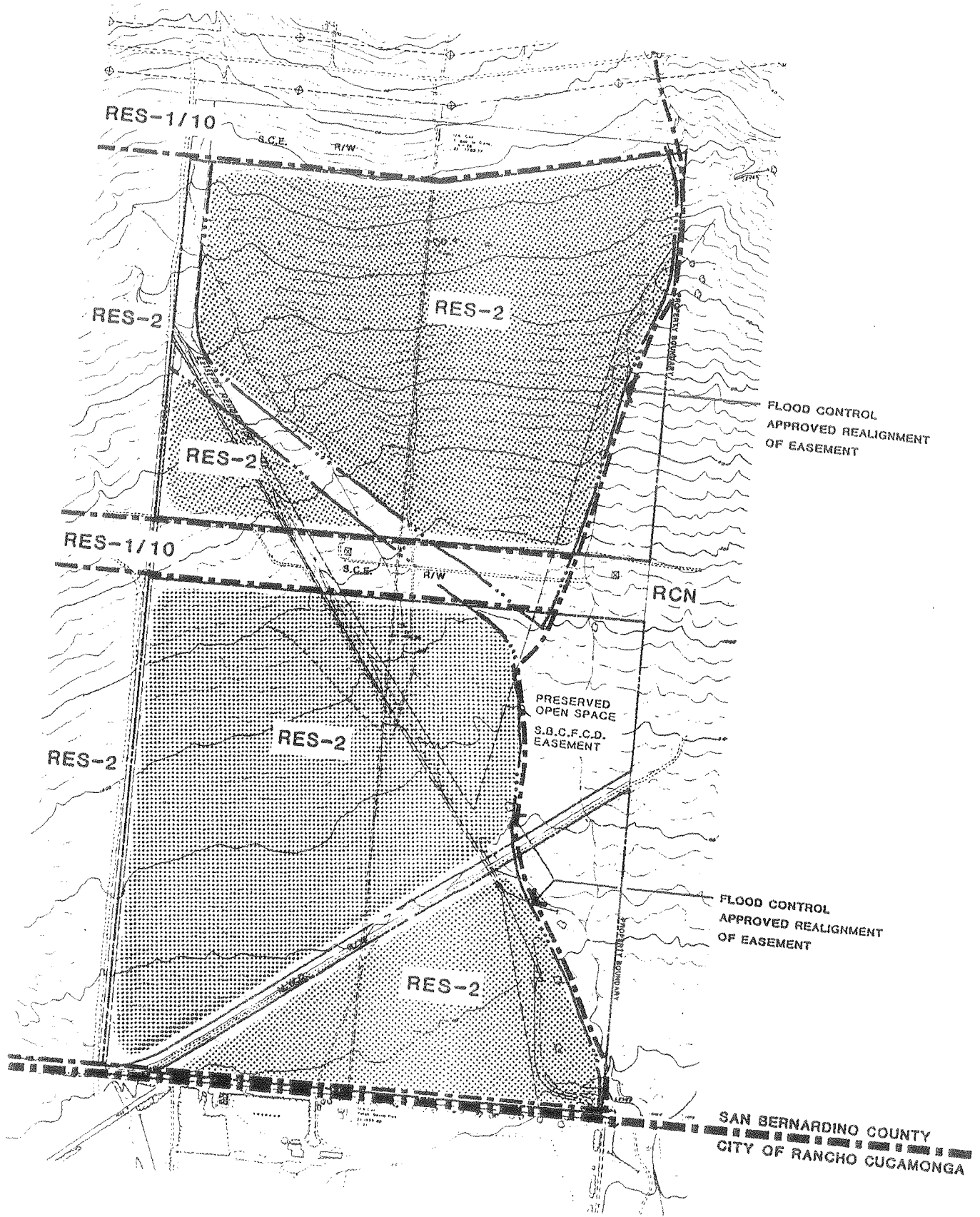


EXHIBIT 4

LAND USE PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



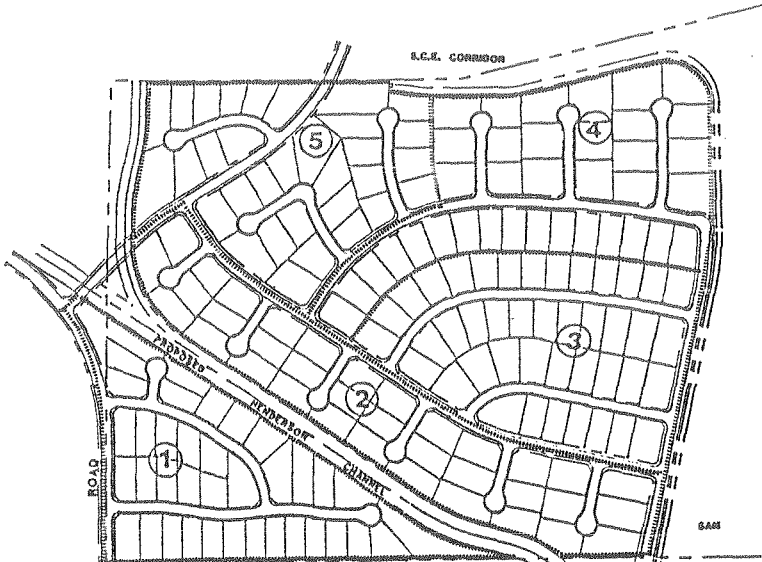
ETIWANDA / SAN SEVAIVE
PLANNING AREA

THE CARYN COMPANY
Land/Plan/Design Group

LEGEND

..... PHASE LINE

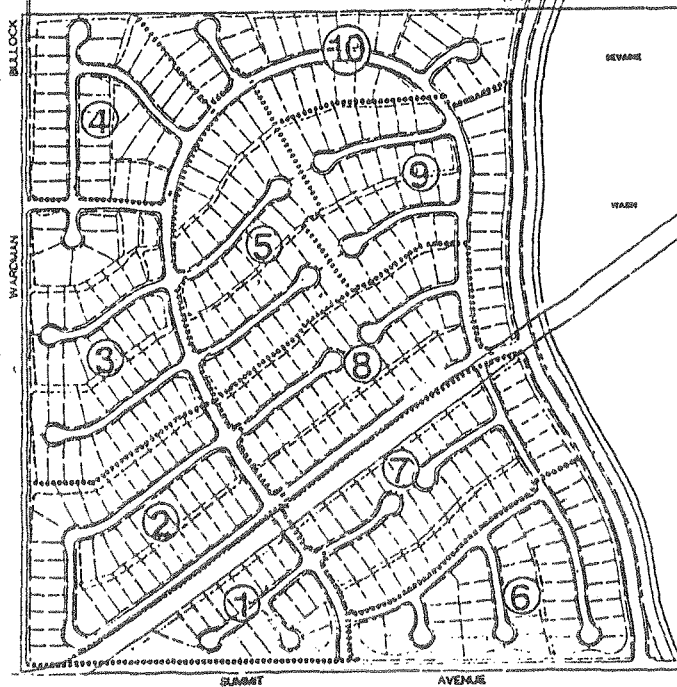
*See Etiwanda North
Specific Plan*



TRACT 13564 (VL)

TOTAL LOTS

182



TRACT 13565 (VL)

TOTAL LOTS

364

EXHIBIT 5

PROJECT PHASING PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



ETIWANDA / SAN SEVAINE
PLANNING AREA

THE CARYN COMPANY
Land/Plan/Design Group



REV. 6/88

REV. 9/88

TABLE I

PROJECT TABULATION

| | <u>Acres</u> | <u>Dwelling Units</u> |
|-----------------------------|------------------|-----------------------|
| Gross Site Acres | 302.93 | * |
| Central SCE Corridor | (15.86) | ** |
| Flood Control | (7.52) | ** |
| Metropolitan Water District | (4.34) | ** |
| Preserved San Sevaine Wash | (<u>37.71</u>) | |
| Total Acres | 237.50 | |

Total Dwelling Units Permitted
Res-2 (237.50 acres x 2) = 475 plus

A 15% increase for dwelling units is
permitted for sites with slopes under
10% = 71

Total dwelling Units Permitted

546

* Excludes northerly SCE corridor.

** Includes areas outside preserved San Sevaine wash.

TABLE II

TRACT 13564 (RES - 2)

SITE ALTERATION 400,000 CU. YDS.
CUT & FILL WILL BALANCE WITHIN THIS TRACT.

| PHASE/ GROSS ACRES | POPULATION | POPULATION DENSITY | DWELLING UNITS | DWELLING UNIT DENSITY | LAND USE DESCRIPTION | ACRES | L.F. | % |
|-----------------------|------------|-----------------------|-------------------|-----------------------------|-------------------------|---------------|------|----|
| PHASE 1 17.7 | 111 | 6.3 | 37 | 2.1 | BUILDING | 2.5 | | 14 |
| | | | | | *OPEN SPACE | 12.4/4/0 | | 72 |
| | | | | | ROADS | 2.4 | | 14 |
| | | | | | ROADS | | 3900 | |
| PHASE 2 37.6 | 105 | 2.8 | 35 | 0.9 | BUILDING | 2.4 | | 6 |
| | | | | | *OPEN SPACE | 12.9/2.2/17.3 | | 86 |
| | | | | | ROADS | 2.8 | | 8 |
| | | | | | ROADS | | 4570 | |
| PHASE 3 21.1 | 126 | 6.0 | 42 | 2.0 | BUILDING | 2.9 | | 14 |
| | | | | | *OPEN SPACE | 13.6/1.6/0 | | 72 |
| | | | | | ROADS | 3.0 | | 14 |
| | | | | | ROADS | | 3100 | |
| PHASE 4 21.3 | 108 | 5.0 | 36 | 1.7 | BUILDING | 2.5 | | 12 |
| | | | | | *OPEN SPACE | 14.8/1.5/0 | | 76 |
| | | | | | ROADS | 2.5 | | 12 |
| | | | | | ROADS | | 3050 | |
| PHASE 5 19.3 | 96 | 5.0 | 32 | 1.7 | BUILDING | 2.2 | | 11 |
| | | | | | *OPEN SPACE | 13.3/1.3/0 | | 76 |
| | | | | | ROADS | 2.5 | | 13 |
| | | | | | ROADS | | 2300 | |

TOTAL DWELLING UNITS 182

TOTAL L.F. 16,920

NOTE : FIGURES ABOVE ARE SUBJECT TO CHANGE
DURING FINAL MAP PROCESS.

* OPEN SPACE IS DIVIDED INTO 3 CATEGORIES, PRIVATE/COMMON/OTHER.
"OTHER" REFERS TO OPEN SPACE AREAS NOT INCLUDED BY DEFINITION
IN COMMON OR PRIVATE OPEN SPACE SUCH AS: PRESERVED SAN
SEVAINE WASH WITH RCN DESIGNATION, MWD, etc.

TABLE II (cont.)

TRACT 13565 (RES - 2)

SITE ALTERATION 500,000 CU. YDS.
CUT & FILL WILL BALANCE WITHIN THIS TRACT. ±

| PHASE/ GROSS ACRES | POPULATION | POPULATION DENSITY | DWELLING UNITS | DWELLING UNIT DENSITY | LAND USE DESCRIPTION | ACRES | L.F. | % |
|-----------------------|------------|-----------------------|-------------------|-----------------------------|-------------------------|--------------|------|----|
| PHASE 1 9.5 | 54 | 5.7 | 18 | 1.9 | BUILDING | 1.0 | | 11 |
| | | | | | *OPEN SPACE | 3.8/9/2.0 | | 71 |
| | | | | | ROADS | 1.8 | | 18 |
| | | | | | ROADS | | 2800 | |
| PHASE 2 13.8 | 126 | 9.1 | 42 | 3.0 | BUILDING | 2.4 | | 17 |
| | | | | | *OPEN SPACE | 7.9/1.1/0 | | 66 |
| | | | | | ROADS | 2.4 | | 17 |
| | | | | | ROADS | | 2650 | |
| PHASE 3 15.8 | 126 | 8 | 42 | 2.7 | BUILDING | 2.4 | | 15 |
| | | | | | *OPEN SPACE | 9.1/2.3/0 | | 72 |
| | | | | | ROADS | 2.0 | | 13 |
| | | | | | ROADS | | 4700 | |
| PHASE 4 10.7 | 87 | 8.1 | 29 | 2.7 | BUILDING | 1.7 | | 16 |
| | | | | | *OPEN SPACE | 6.6/9/0 | | 70 |
| | | | | | ROADS | 1.5 | | 14 |
| | | | | | ROADS | | 1570 | |
| PHASE 5 12.2 | 117 | 9.6 | 39 | 3.2 | BUILDING | 2.2 | | 18 |
| | | | | | *OPEN SPACE | 7.6/8/0 | | 69 |
| | | | | | ROADS | 1.6 | | 13 |
| | | | | | ROADS | | 1300 | |
| PHASE 6 28.4 | 114 | 4.0 | 38 | 1.3 | BUILDING | 2.2 | | 8 |
| | | | | | *OPEN SPACE | 6.7/1.2/14.7 | | 80 |
| | | | | | ROADS | 3.6 | | 12 |
| | | | | | ROADS | | 4800 | |
| PHASE 7 14.7 | 132 | 9.0 | 44 | 3.0 | BUILDING | 2.5 | | 17 |
| | | | | | *OPEN SPACE | 7.4/1.1/2.0 | | 71 |
| | | | | | ROADS | 1.7 | | 12 |
| | | | | | ROADS | | 1360 | |

TABLE II (cont.)

TRACT 13565 (RES - 2)

| PHASE/ GROSS ACRES | POPULATION | POPULATION DENSITY | DWELLING UNITS | DWELLING UNIT DENSITY | LAND USE DESCRIPTION | ACRES | L.F. | % |
|--------------------------|------------|-----------------------|-------------------|-----------------------------|-------------------------|--------------|------|----|
| PHASE 8 12.6 | 129 | 10.2 | 43 | 3.4 | BUILDING | 2.5 | | 20 |
| | | | | | *OPEN SPACE | 6.9/1.2/0 | | 64 |
| | | | | | ROADS | 2.0 | | 16 |
| | | | | | ROADS | | 2430 | |
| PHASE 9 30.7 | 117 | 3.8 | 39 | 1.3 | BUILDING | 2.2 | | 7 |
| | | | | | *OPEN SPACE | 8.8/1.6/15.3 | | 84 |
| | | | | | ROADS | 2.8 | | 9 |
| | | | | | ROADS | | 3220 | |
| PHASE 10 11.5 | 90 | 7.8 | 30 | 2.6 | BUILDING | 1.7 | | 15 |
| | | | | | *OPEN SPACE | 7.7/1.3/0 | | 78 |
| | | | | | ROADS | 0.8 | | 7 |
| | | | | | ROADS | | 1470 | |
| TOTAL DWELLING UNITS 364 | | | | | TOTAL L.F. 26300 | | | |

NOTE : FIGURES ABOVE ARE SUBJECT TO CHANGE DURING FINAL MAP PROCESS.

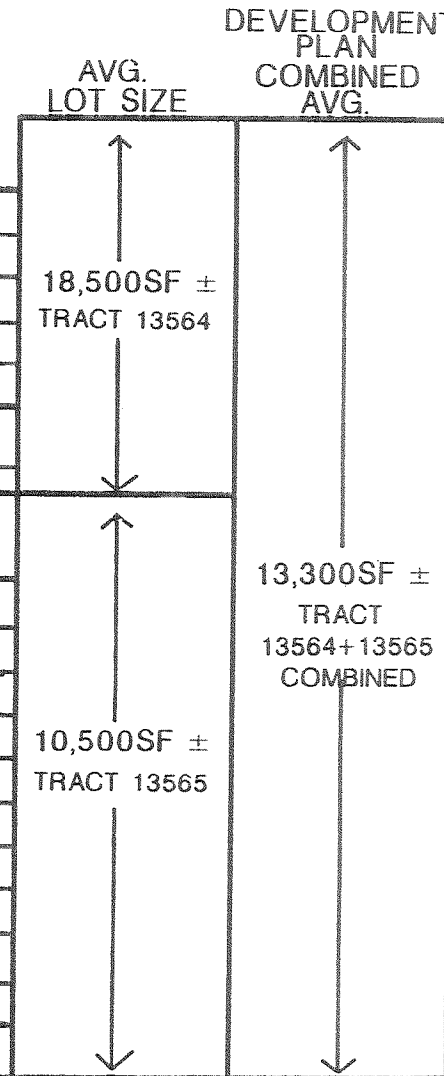
* OPEN SPACE IS DIVIDED INTO 3 CATEGORIES, PRIVATE/COMMON/OTHER. "OTHER" REFERS TO OPEN SPACE AREAS NOT INCLUDED BY DEFINITION IN COMMON OR PRIVATE OPEN SPACE SUCH AS: PRESERVED SAN SEVAIN WASH WITH RCN DESIGNATION, MWD, etc.

TABLE II (cont.)
TRACT 13564
(182 LOTS)

LOT SIZE ANALYSIS

| PHASE # | 14-17,000SF | 17-19,000SF | 19,000SF & ABOVE |
|---------|-------------|-------------|------------------|
| 1 | 26 | 3 | 8 |
| 2 | 8 | 12 | 15 |
| 3 | 19 | 14 | 9 |
| 4 | 8 | 8 | 20 |
| 5 | 8 | 8 | 16 |
| TOTAL | 69 | 45 | 68 |

| TRACT 13565 (364 LOTS) | 9-10,000SF | 10-11,000SF | 11,000SF & ABOVE |
|---------------------------|------------|-------------|------------------|
| 1 | 9 | 2 | 7 |
| 2 | 25 | 9 | 8 |
| 3 | 4 | 8 | 30 |
| 4 | 4 | 11 | 14 |
| 5 | 16 | 8 | 15 |
| 6 | 28 | 3 | 7 |
| 7 | 29 | 10 | 5 |
| 8 | 35 | 6 | 2 |
| 9 | 3 | 12 | 24 |
| 10 | 1 | 3 | 26 |
| TOTAL | 154 | 72 | 138 |



NOTE: THE ABOVE FIGURES ARE ESTIMATES AND ARE SUBJECT TO CHANGE DURING FINAL MAP PROCESS

The lot sizes indicated above are consistent with the West Valley Foothills Community Plan and with surrounding land uses.

To the East, across San Sevaine wash, is the proposed Hunters Ridge Development with lot sizes predominantly in the 4,500 square foot to 7,200 square foot range. To the West, across Etiwanda Creek, the West Valley Foothills Community Plan (WVFCP) indicates both Res-2 and Res-3. To the North, as slope gradients increase the WVFCP reflects Res-1. To the south, within the City of Rancho Cucamonga, the Etiwanda Specific Plan permits up to 4 dwelling units per acre. The Caryn Company has submitted a plan to the City for a portion of the southerly area with lot sizes ranging from 10,000 square feet with an overall average of 15,000 square feet.

II. LAND USE

A. RELATIONSHIP TO WEST VALLEY FOOTHILLS COMMUNITY PLAN

The proposed P.U.D. is in accordance with the goals of the County's Community Plan for this area. First, Section WF2.0201 of the West Valley Foothills Community Plan, Directive (1) asks that development be "an extension of adjoining communities but not in competition as an urban core". This proposed development is a community of single-family homes, compatible with the surrounding zoning which provides for single-family homes.

Second, Section WF2.0201 - Directive (2) asks that "planning strategies be adopted which foster a sense of identity at the neighborhood level". Action (A) asks to establish "common landscape/streetscape standards" and Action (E) asks to "identify a common theme for each neighborhood". This site will foster a strong community identity through its preservation of approximately 37 acres of open space along the San Sevaine wash. The major entry road into the site will be located parallel and adjacent to the San Sevaine wash in order to capture the dramatic views into the hundreds of acres of natural open space and to the San Gabriel mountains to the north. This entry road along the wash will establish a true rural imagery for the site as well as for future communities to the north and west, which are likely to connect to this new road. Common landscape street standards and themes for neighborhoods are incorporated into the plan as indicated on following exhibits to reinforce this rural imagery.

Third, Section WF2.0205, Directive (1) asks that development be an "extension of adjacent residential land uses". This project is an extension of adjacent land uses providing 100% single-family homes with overall lot size averaging approximately 14,000 square feet and ranging from 9,000 to over 18,000 square feet.

B. RELATIONSHIP TO CITY OF RANCHO CUCAMONGA

This Development Plan also relates to the City of Rancho Cucamonga, located to the south of the site, and in particular to the Etiwanda Specific Plan which controls the development standards for the City. The following paragraphs address relationships to land use, community character, trails and parks, vehicular circulation, and infrastructure of the Etiwanda Specific Plan.

1. Land Use

The land use directly to the south of this P.U.D. within the Etiwanda Specific Plan is identified as an "L" category which requires a minimum of 10,000 square feet and an average of 15,000 square feet lots as a "basic standard". "Optional standards" permit up to four dwelling units per acre. This P.U.D. is thus consistent with the property to the south with lots averaging approximately 14,000 square feet and lot sizes ranging approximately from 9,000 to 18,000 square feet.

2. Community Character

Page 3-1, item 3.24 of the Etiwanda Specific Plan states "The communities natural resources shall be respected, and protection and preservation of those resources, including open spaces, shall be encouraged". This P.U.D. preserves approximately 37 acres of natural resources within the San Sevaine wash as an open space amenity that enhances the character of the planned development.

Page 3-2, item 3.32 states "In order to avoid the lack of focus characteristic of many Southern California communities, development in Etiwanda should be guided by design standards and guidelines which reinforce the sense of community identity."

This P.U.D. provides for the above stated design standards and guidelines. For example, the site plan incorporates along Summit Avenue approximately 40' of open space that will include an equestrian

trail/fence and generous amounts of landscape. The equestrian fence will create a "rural imagery" characteristic and complimentary to the Etiwanda area.

Within the site, generous setbacks standards have been provided. Along a typical interior street homes will be located an average of 30' from the property line (37' back from the street curb). This standard will contribute to the estate character within the Etiwanda area.

3. Trails and Parks

The P.U.D. is consistent with the Etiwanda Specific Plan with regard to Equestrian Trails and Parks. Exhibit 10 in the P.U.D. reflects an equestrian trail along the south side of Upper Summit Road which follows the Etiwanda Specific Plan. Trails outside the tract shall not be required to be constructed by the Developer.

With respect to parks, the County of San Bernardino does not require park or open space for developments such as this P.U.D. However, this P.U.D. has voluntarily preserved approximately 37 acres of open space within the San Sevaine wash. (This area could have been developed if desired by the developer). This open space provides a valuable resource to the area and retains the natural features of the site. It is also consistent with the Etiwanda Specific Plan objectives which states on page 3-9 to "maximize opportunities for the joint use of public facilities such as schools, flood control, and areas under the jurisdiction of other public agencies". This objective is met by the P.U.D. by preserving the wash as joint flood control and open space/park use.

4. Vehicular Circulation

A traffic analysis by Kunzman and Associates has been prepared for this P.U.D. at the request of the City of Rancho Cucamonga. Numerous meetings with both City and County representatives occurred during the formation of the report. A copy of the traffic report is included in the appendix. The traffic

report conclusions indicate that the project meets the standards of the Etiwanda Specific Plan. A recommendation for a revision to the Etiwanda Specific Plan "Loop" road occurs, as well as a Loop road from East Avenue to Wardman Bullock Road.* This would not impact the P.U.D., since both are located to the west of the site.

5. Infrastructure

The infrastructure of the site relates to the Etiwanda Specific Plan. Streets, water, dry sewers, storm drain, and utilities will be provided and phased in such a manner as to be compatible with the City of Rancho Cucamonga. The possibility of providing usable sewers exists if the developer decides to extend the trunk sewer. Numerous meetings have been held with the City of Rancho Cucamonga engineers to assure this compatibility. The developer of this P.U.D., the Caryn Company, is providing \$500,000 to be used for off-site improvements in the immediate area. This amount is generally equivalent to the "systems development fee" that the City requests for developments within its boundaries.

In addition, the Caryn Company is also developing ~~160~~ 154 lots directly to the south within the City of Rancho Cucamonga. A systems development fee of approximately \$150,000 will be generated from that development. Together, the two developments will generate a pool of approximately \$650,000 to be used in the immediate and adjacent areas.

* Indicates September 1, 1988 Revision

C. DEVELOPMENT REGULATIONS AND STANDARDS

1. General Standards and Regulations

a. Whenever the regulations contained herein conflict with the regulations of the Development Code of the County of San Bernardino, the regulations contained herein shall take precedence. Where a regulation is not covered, refer to the development code of the County of San Bernardino.

b. Within the project area boundary, the continued use of land for agricultural purposes with uses, structures and appurtenances accessory thereto shall be permitted, subject to the provisions set forth in the West Valley Foothills Community Plan and the San Bernardino County Development Code.

c. Grading will be permitted within the project area outside an area of immediate development upon the securing of a grading permit.

During the site development, construction hours of operation shall be limited to between 7:00 a.m. and dusk, Monday through Saturday. No activities will be permitted outside these hours, including maintenance work that might be required on any equipment used in grading and/or construction unless a temporary waiver will be granted where such be granted by the Building Department. No such waiver will be granted where such work is to be conducted adjacent to existing and occupied dwelling units except in cases of emergency as determined by the Building Official.

d. Regardless of the provisions of this text, no construction shall be allowed within the project area except that which complies with all the provisions of applicable building and mechanical codes.

e. Model homes, garages and private recreation facilities may be used as offices for the sale of homes within a recorded tract and subsequent tracts as

allowed by the by the San Bernardino County development code.

2. Residential Development Standards

a. Fences, Hedges and Walls

Walls constructed as acoustical barriers shall have height limits as required to meet county noise standards. All other walls/fences shall be limited to six (6') feet. No fences or walls are required within the site, but may be provided at the option of the builder or homeowner. A maximum 3'-6" fence or wall shall be permitted within the front yard setback area. All other fences or walls shall be 6'0" high maximum. Only fences or walls required for grading purposes to ensure public health and safety standards are met shall be required.

Fifty percent of the walls or fences adjacent to the central or northerly Southern California Edison corridors shall be open view type fencing. Continuous block walls shall not be permitted.

b. Trellis

Open trellis and beam construction shall be permitted to attach the garage or carport to the dwelling and may also extend from the dwelling to within five (5') feet of the property line in the side, rear yards or front yards. Trellis and beam construction shall not be included in calculated site coverage.

c. Temporary Uses Permitted (All subject to provisions of San Bernardino development code)

- (1) Model homes, temporary construction offices, real estate offices and signs.
- (2) Continued use of an existing building during construction of a new building on the same building site.

d. Garage and Carport Placement

- (1) Where garages/carports are entered from local streets and the garage doors face the street, the setback from back of sidewalk shall be a minimum of twenty (20') feet and an average of thirty (30') feet for all said homes within a given phase.
- (2) Where garages/carports are entered from local streets and the garage doors do not face the street but are instead turned at right angles to the street (side entry garages) the setback shall be twenty (20') feet minimum from back of sidewalk.

e. Permitted Uses

- (1) Single-family dwellings
- (2) Open space, parks and trails

f. Accessory Uses Permitted

- (1) Garages and carports in compliance with the site development standards provided herein
- (2) Fences, walls, patios, patio enclosures and trellises
- (3) Swimming pools
- (4) Accessory uses and structures necessary or customarily incidental to a principal use permitted in this district are allowed subject to approval of the Building Official

g. Site Development Standards: Tract 13564

- (1) Lot area: 14,000 s.f. minimum to over 20,000 s.f.. Average lot is approximately 18,000 s.f.. Combined average between tract 13564 and 13565 is approximately 14,000 s.f..
- (2) Lot width: Eighty (80') feet minimum, measured from setback line of lot. Width may vary depending on lot size. The width of lots for any future subdivision shall be measured

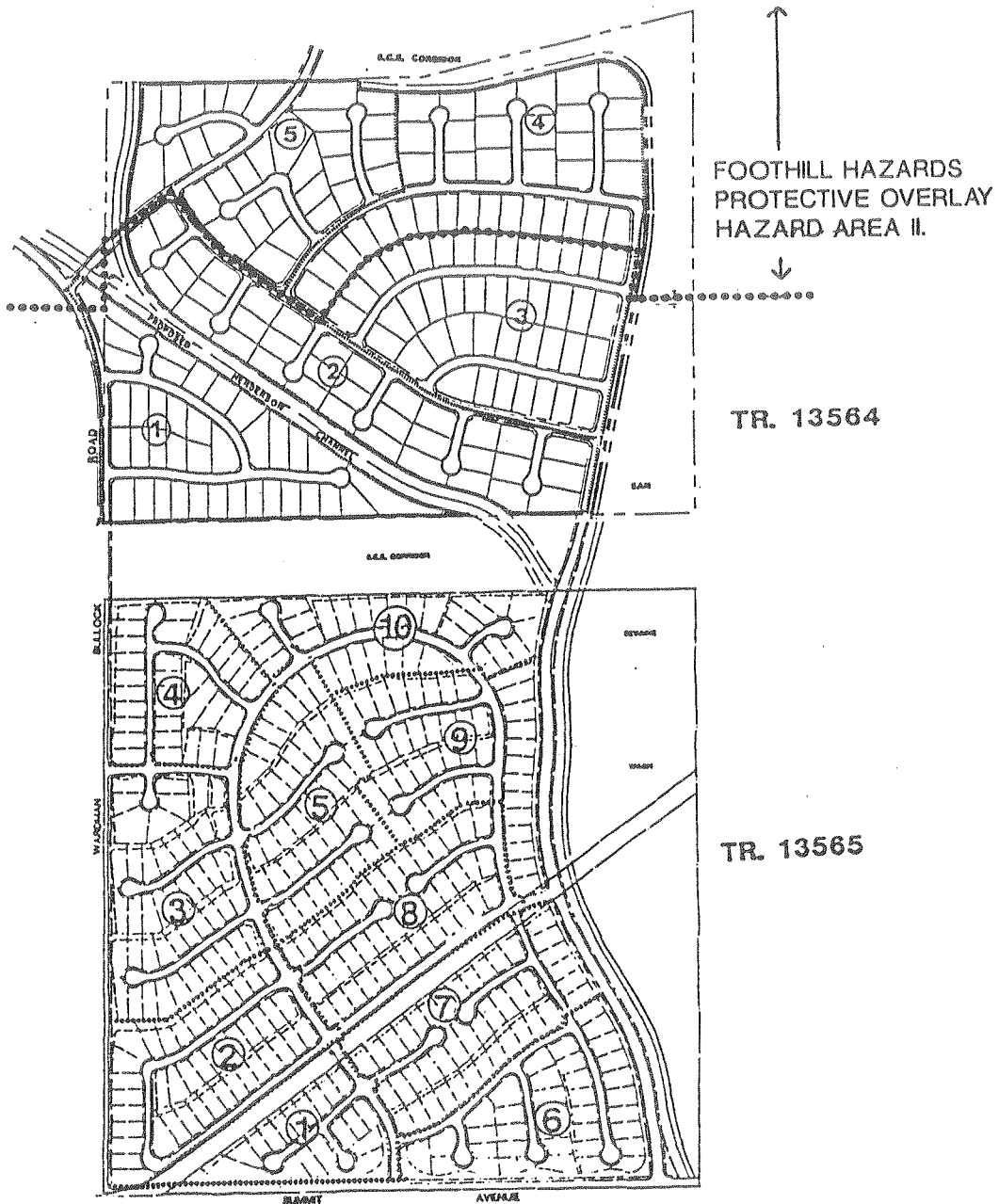


EXHIBIT 6

LOT LAYOUT PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



ETIWANDA / SAN SEVAIN
PLANNING AREA

THE CARYN COMPANY
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in accordance with the San Bernardino County Development Code.

- (3) Building coverage: 30% maximum of lot area for building structures. Paving for driveways, patios, overhead trellises or pools shall not be calculated as part of building coverage.
- (4) Lot ratio: Unless otherwise shown on the approved tentative tract maps, lot ratio shall not exceed 3:1.

h. Site Development Standards: Tract 13565

- (1) Lot area: 9,000 s.f. minimum to over 12,000 s.f.. Average lot is approximately 11,000 s.f.. Combined average between tract 13564 and 13565 is approximately 14,000 s.f..
- (2) Lot width: Sixty (60') feet minimum, measured from setback line of lot. Width may vary depending on lot size. The width of lots for any future subdivision shall be measured in accordance with the San Bernardino County Development Code.
- (3) Building coverage: 30% maximum of lot area for building structures. Paving for driveways, patios, overhead trellises or pools shall not be calculated as part of building coverage.
- (4) Lot ratio: Unless otherwise shown on the approved tentative tract maps, lot ratio shall not exceed 3:1.

i. Building Setbacks - General

For all areas within tract 13564 refer to setbacks established by County of San Bernardino "Greenbelt Ordinance". Specifically, all homes within the Hazard II area (see Exhibit 6) shall have exterior wall separations of at least thirty (30') feet, unless otherwise approved by the Foothill Fire District or County Planning. *
~~See Map #4 in folder for Hazard II area locations.~~

*Indicates September 1, 1988 revisions.

j. Main Building Setbacks - Front Yard

Variable setbacks with twenty (20') feet minimum setback from property line, thirty (30') feet average per phase. Garage setbacks are listed in item "d" above.

k. Main Building Setbacks - Side Yard

Tract 13564 & 13565: Not less than fifteen (15') feet total. Five (5') feet minimum on one side for a 1-story structure, seven (7') feet for a 2-story structure where second story does not step back two (2') feet or greater from first story level. On corner lots, fifteen (15') feet minimum setback required on corner side.

l. Building Setbacks - Rear Yard ✓

Twenty (20') feet minimum setback from property line.

m. Building Height

Two story, thirty-five (35') feet maximum.

n. Parking Requirement

2 per dwelling and sufficient streetside parallel parking to accommodate .5 cars per dwelling.

o. Dwelling Unit Size

One thousand (1,000) square feet, not including garage or carport area.

p. Metropolitan Water District (M.W.D.) and Southern California Edison (SCE)

An eighty (80') foot MWD R.O.W. crosses the site as shown in Exhibit 3. This project will conform to requirements established by MWD for improvements (i.e., roads, landscaping, etc.). Minimum road improvements will need to occur within MWD; landscaping will be provided throughout the MWD corridor subject to MWD conditions.

A 330' SCE R.O.W. crosses the site as shown in Exhibit 3. This project will conform to requirements established by SCE for improvements (i.e., roads, slopes, etc.).

III. HOUSING

A. EXISTING CONDITIONS

The West Valley Foothills Community Plan EIR indicates that the planning area, within which the project site is located, is primarily undeveloped. Currently, approximately 36 single-family homes exist in the West Valley Foothills. These residences are scattered throughout the area as expansive hillside residences or as rural residential dwellings.¹ The P.U.D. site is completely vacant.

The General Plan designations incorporated into the Community Plan will permit the construction of approximately 7,500 dwelling units in the West Valley Foothills, at a density of two (2) dwelling units per acre or less. At this density all of the structures can be built as single-family, detached dwellings.

B. HOUSING DEMAND

The West Valley Foothills Planning Area is located in the west end of the San Bernardino Valley (Regional Statistical Area - 28). This portion of the Valley has experienced substantial growth during the past decade. In 1980 RSA-28 was estimated to contain 346,000 people; by the year 2005 the region is projected to house 731,000 residents.²

If densities projected by the West Valley Foothills Community Plan are realized, the planning area of which this project is a part, will eventually house from 15,900 to 21,700 persons. Increases in population will create proportional demand for housing in the West Valley Foothills planning area. The proposed project will help to alleviate the regional demand for housing. At buildout, the project could provide dwelling units for approximately 1,425 people. It is expected that most of these units will be purchased by "move up" home buyers, and that some will be occupied by "first time" buyers.

As the project progresses, conditions may arise which warrant changes in the specific product-types and densities which have been outlined in the Land Use Plan. The need to construct different housing types may result from changes in political, economic, and market conditions.

Exhibit 6 indicates the proposed number of lots per tract. The northerly lots are generally ~~10,000~~ 14,000* to 18,000 square feet, and the southerly lots generally 9,000 to 12,000 square feet.

* Indicates September 1, 1988 revisions.

IV. PUBLIC SERVICES AND FACILITIES

A. PUBLIC SERVICE AND FACILITY NEEDS

The land uses proposed in the West Valley Foothills Community Plan are basically an extension of the development pattern occurring within adjacent communities. Densities proposed for the planning area were derived with these two considerations in mind: the ability to provide services to the planning area and the region's natural constraints. The absence of development in the planning area provides an excellent opportunity to design a comprehensive and environmentally sensitive plan which responds to local and regional issues.

Services and facilities described in this section include: infrastructure systems such as water, septic, solid waste, storm drain, public utilities and community facilities such as police, fire, schools, open space and roads.

B. PROJECT SETTING

The project site is located within the planning area of the West Valley Foothills Community Plan. While the site is within County jurisdiction, it is also within the City of Rancho Cucamonga's Sphere of Influence.

Two regional parks, Cucamonga-Guasti and Glen Helen, have been developed in the vicinity of the project site. A third regional park has been proposed in the vicinity of Chaffey College, located west of the project site. In addition, regional equestrian and hiking trails are proposed along the base of the San Gabriel foothills with connecting trails adjacent to each of the several major drainage courses, including to the east edge of the San Sevaine wash.

Community shopping and employment centers are limited in the area due to the relatively low existing population. However a highway oriented commercial center is permitted at the northwest corner of I-15/Cherry Avenue intersection nearby the site and a regional commercial center is proposed for the Victoria community several miles to the southwest. In addition, major employment centers exist in the neighboring cities of Rancho Cucamonga, Fontana and Ontario.

C. INFRASTRUCTURE

1. Water Supply

Domestic water service to the project will be supplied by the Cucamonga County Water District (CCWD). CCWD is a member agency of the Chino Basin Municipal Water District (CBMWD) which is a member agency of the Metropolitan Water District of Southern California (MWD).

CCWD derives its water from three (3) major sources: ground water, surface water, and imported water. Ground water is extracted by wells in the Chino and Cucamonga basins. Almost ninety percent (90%) of the water supply is from underground sources. Water quality is considered excellent.

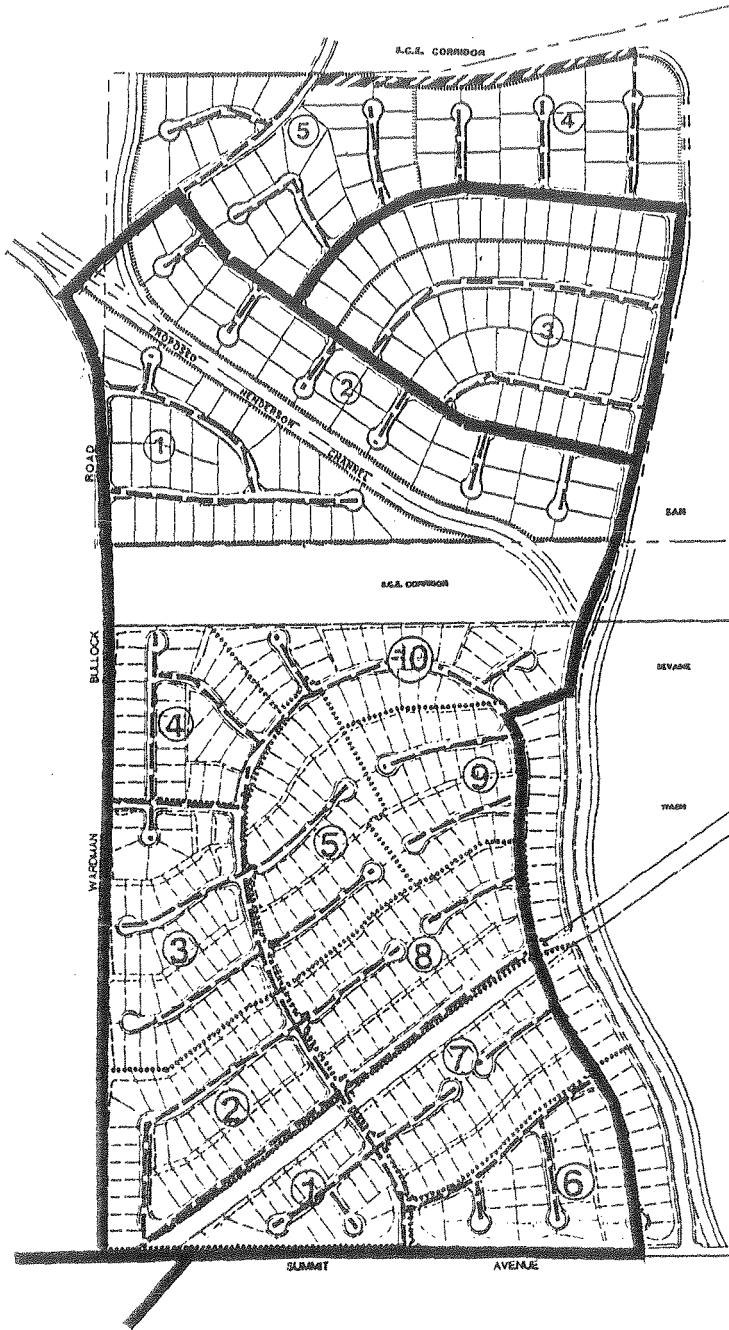
Surface water is obtained from Day and East Etiwanda Canyons and is treated at the Royer-Nesbit Plant which is located near Day Creek. During the summer months when surface flows are low, the Royer-Nesbit plant also treats imported water from the Metropolitan Water District Foothill Feeder, which distributes water from the Colorado River Aqueduct and the California Water Project.

The CCWD water system is adequate to service the project site since the Water System Master Plan is based upon land use projections identified by the Rancho Cucamonga General Plan and the high-end projections₃ of the West Foothills Valley Community Plan.




The project site will receive its water from the 16" diameter CCWD line in Hanley Avenue that serves Zone 4 with water service. A major portion of the proposed development is located within this zone.

A 12" line will be constructed by the Developer in 24th Street (Wilson Ave. extension). The line will connect at Hanley and extend easterly approximately 9000' to the development site. This line, coupled with an extension of the Summit Ave. 12" line for approximately 3,700', will provide all necessary water to adequately service the subject property.

That area of the project located within Zone 3 can be served on a temporary basis through pressure regulators.



LEGEND

-  12" SERVICE LINE
-  8" SERVICE LINE
-  POSSIBLE 12" SERVICE LINE

TRACT 13564

TRACT 13565

EXHIBIT 7
WATER SYSTEM

SAN BERNARDINO COUNTY, CALIFORNIA



ETIWANDA / SAN SEVAINE
PLANNING AREA



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LEGEND

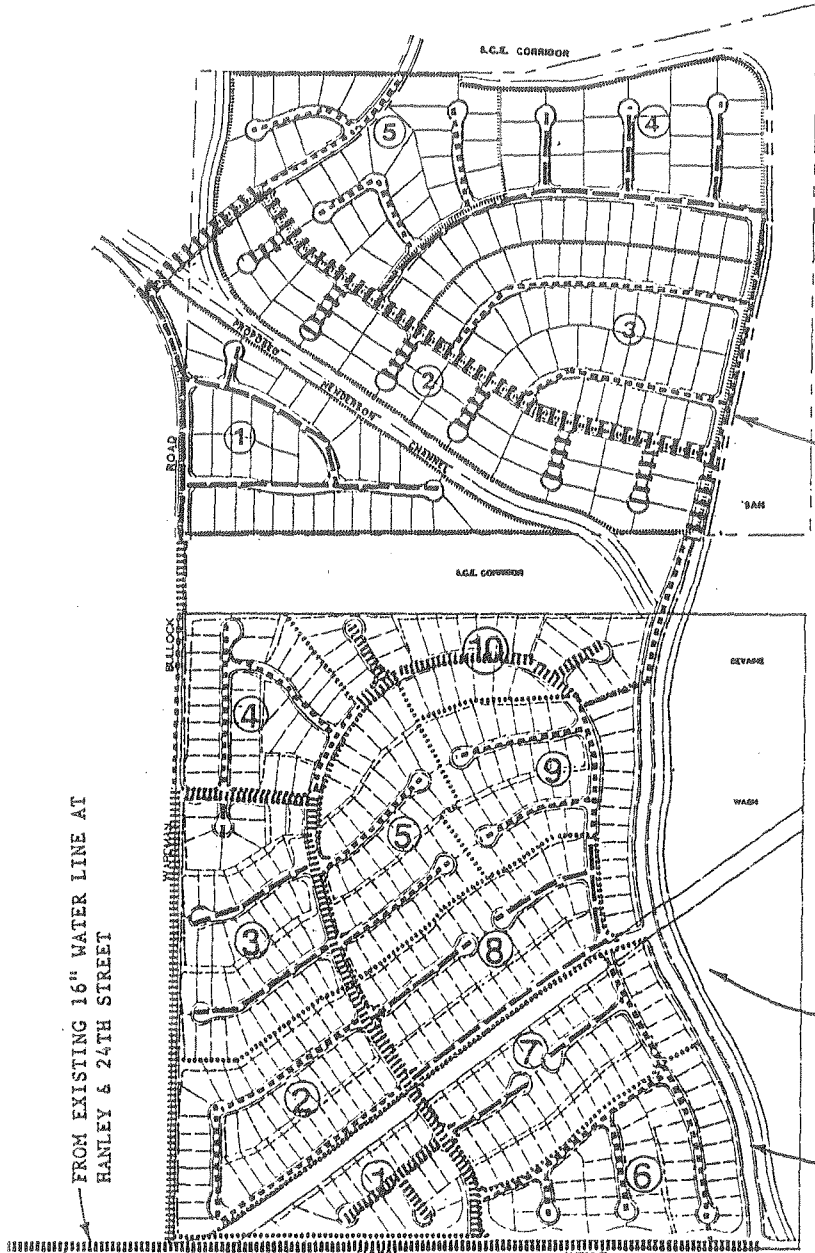
5. PHASE NUMBER

..... PHASE LINE

..... WATER LINE

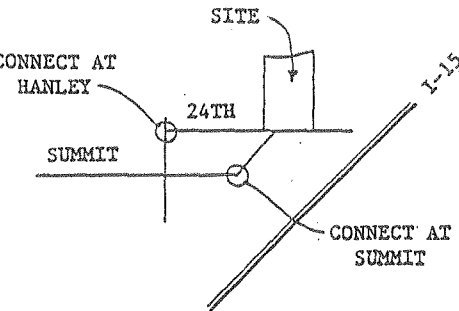
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NOTE: THE ABOVE WATER LINE SYMBOLS VARY TO ACHIEVE GRAPHIC CLARITY BETWEEN PHASES.



TRACT 13564

TRACT 13565



CONSTRUCT WITH PHASE 6 OF TENTATIVE TRACT 13565 OR PHASE 2 OF 13564.

FROM EXISTING 16" WATER LINE AT HANLEY & 24TH STREET

FROM EXISTING 12" WATER LINE AT SUMMIT & SUMMIT (22nd ST.)

OFFSITE WITH PHASE 1 OF EITHER TENTATIVE TRACT WHICH EVER OCCURS FIRST.

OFFSITE WITH PHASE 6 OF TENTATIVE TRACT 13565 OR PHASE 1 OF TENTATIVE TRACT 13564. BONDED FOR IN PHASE I FROM PLANS IN PROCESS.

NOTE: THIS PHASING PLAN IS DIAGRAMMATIC AND MAY CHANGE AS DEVELOPMENT OCCURS. THE INTENT IS TO CONVEY THAT DEVELOPMENT WITHIN A PARTICULAR PHASE IS BEING ADEQUATELY SERVED WITH INFRASTRUCTURE IMPROVEMENTS.

EXHIBIT 7A

WATER PHASING PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



ETIWANDA / SAN SEVAINE PLANNING AREA



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All water lines will be built and paid for by the project developer. In the instance where water lines need to be over-sized, the Water District will pay for the over-sizing costs. Maintenance of the water system will be paid for out of water fees.

Water costs will be approximately \$700,000 for both on-site and off-site improvements.

Exhibit 7 indicates the proposed on-site water distribution system. Exhibit 7A indicates phasing.

2. Sanitary Systems

The site will be sewerred according to Cucamonga County Water District Requirements. See Exhibit 7B for sewer phasing. The possibility of providing septic disposal systems also exists. Percolation testing, for leach line disposal methods, was conducted utilizing the modified bottle percolation test method set forth by the San Bernardino County Environmental Health Services Agency. The percolation test data thus collected was converted into sewage application rates using currently accepted San Bernardino County Environmental Health Services criteria. All percolation tests indicated that individual sewage disposal systems, utilizing tank and leach line disposal methods should function exceptionally well at the site, with percolation rates of less than 5 minutes per inch, giving an absorption area of 55 square feet per 100 gallons of septic tank capacity.

Also free groundwater was not encountered within any of the exploratory trenches conducted. The static groundwater is estimated to be greater than 100 feet below the existing ground surface at the site, thus precluding contaminants entering the groundwater system.

3. Solid Waste

Solid waste disposal will be handled by one of several solid waste handlers licensed to operate in this area of San Bernardino County; handlers will contract with individual homeowners. Solid

LEGEND

⑤ PHASE NUMBER

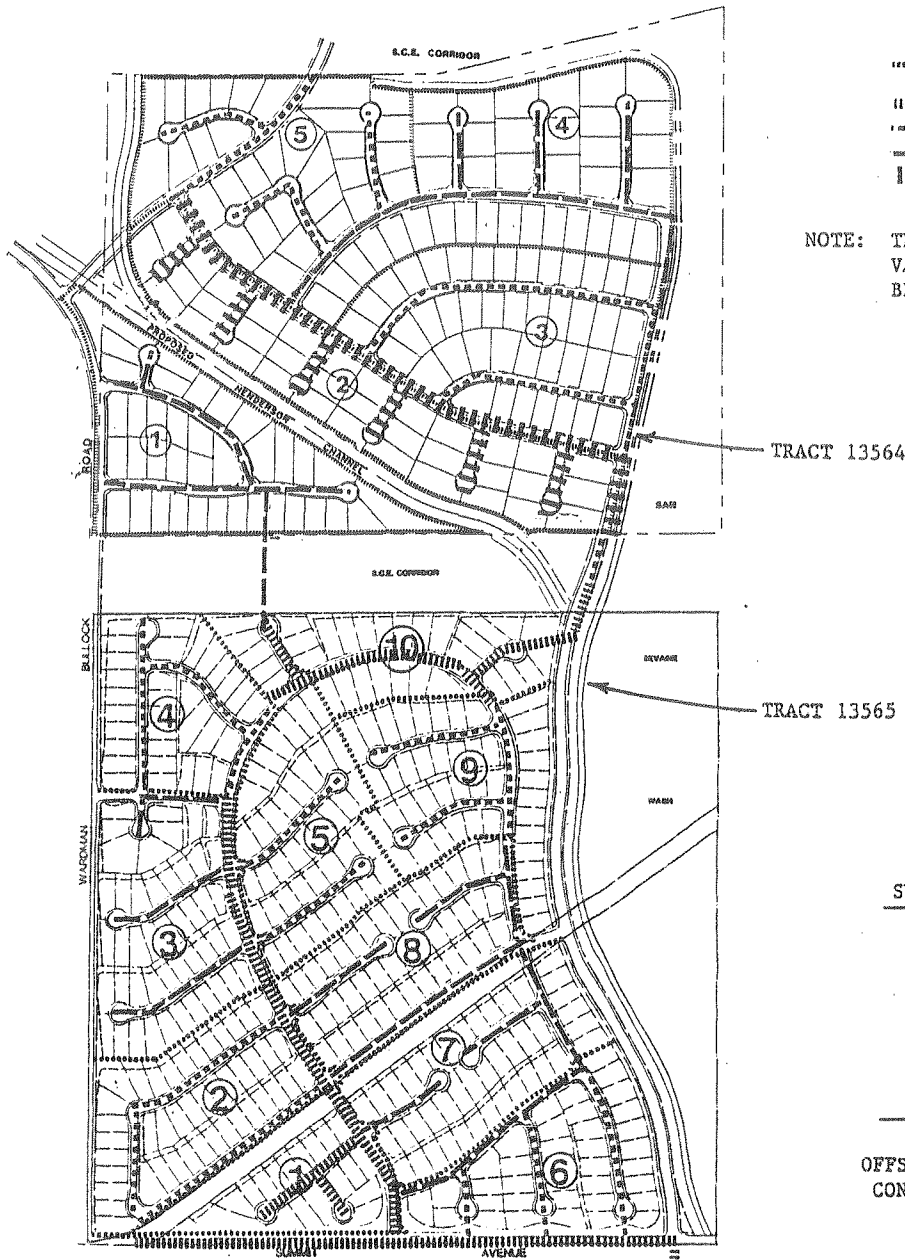
..... PHASE LINE

..... SEWER LINE

..... SEWER LINE

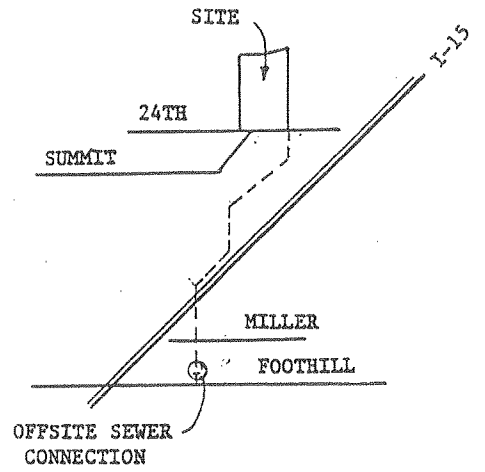
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NOTE: THE ABOVE SEWER LINE SYMBOLS VARY TO ACHIEVE GRAPHIC CLARITY BETWEEN PHASES.



TRACT 13564

TRACT 13565



CONNECT TO EXISTING SEWER LINE IN EAST AVE. NEAR MILLER

NOTE: THIS PHASING PLAN IS DIAGRAMMATIC AND MAY CHANGE AS DEVELOPMENT OCCURS. THE INTENT IS TO CONVEY THAT DEVELOPMENT WITHIN A PARTICULAR PHASE IS BEING ADEQUATELY SERVED WITH INFRASTRUCTURE IMPROVEMENTS.

EXHIBIT 7B

SEWER PHASING PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



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REV. 9/88

waste will be deposited in the San Bernardino County landfill, located at Milliken Avenue and Mission Boulevard, in the City of Ontario. One or two additional vehicles will eventually be needed to service the project site at buildout.

4. Storm Drain System

On-site storm water facilities will be provided on the project site as part of the development. These facilities will be constructed to meet the rational method criteria of the County of San Bernardino. All streets will be designed so that storm water does not exceed the top of curb for a 25-year storm and the right-of-way line for a 100-year storm. When the water exceeds the top of curb for a 25-year storm on any street, the excess will be picked up in a storm drain. It is proposed that all facilities will be designed to handle the ultimate drainage that would be tributary to the area. All on-site flows will be collected and outletted into the San Sevaine Creek flood plain or basin.

Flood Control and Storm Drain costs will be approximately \$5,150,000.

Exhibit 8 indicates the basic conceptual design of the storm drain system. Exhibit 8A indicates phasing.

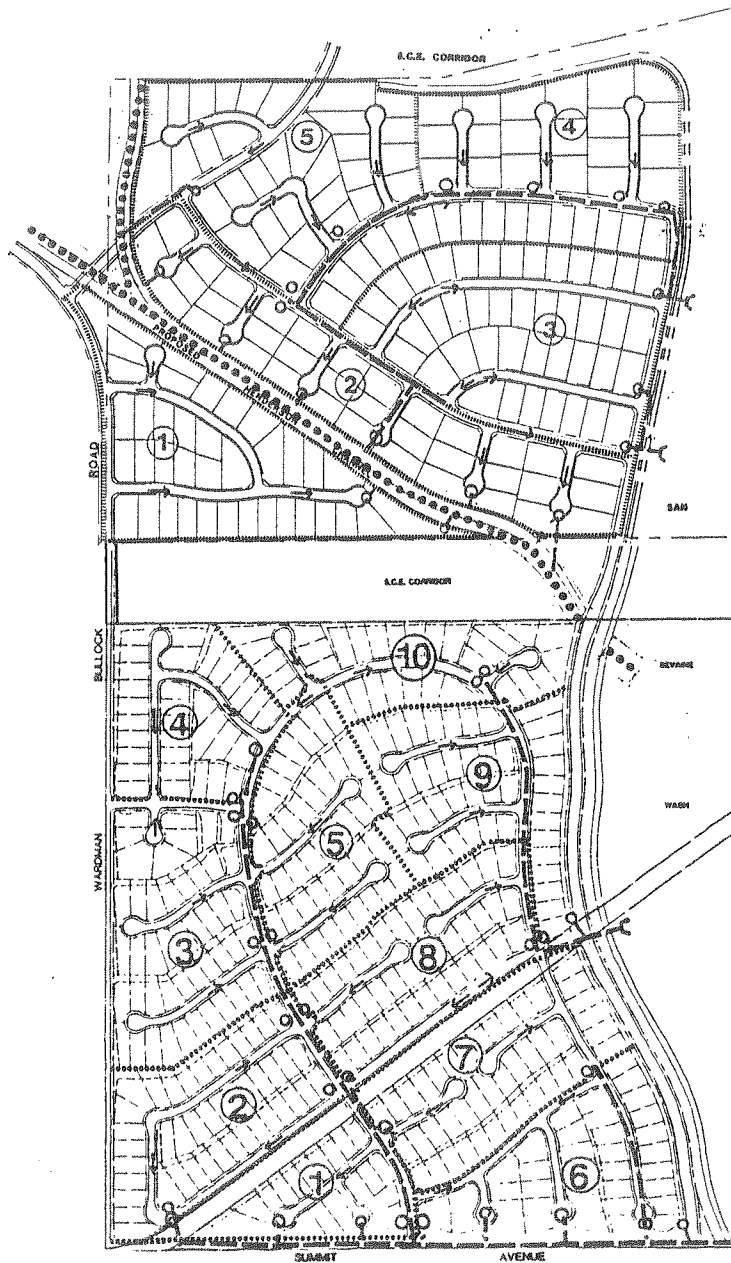
5. Flood Control

a. Overview

A detailed analysis on flood and drainage issues pertaining to the P.U.D. is included in the Appendix. The flood control issues and proposed facilities are summarized herein. The Appendix should be referred to for a more detailed analysis.



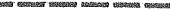



The property is located adjacent to and west of the San Sevaine Creek wash and spreading grounds, the outlet for Morse and San Sevaine Canyons. The Henderson Creek channel traverses the site in a southwest direction.

A drainage master plan entitled "Day, Etiwanda and San Sevaine Creeks System Drainage Plan" was completed in March, 1983, by Bill Mann & Associates. The flood control facilities proposed for the P.U.D. generally follow recommendations made in the "Day, Etiwanda and San Sevaine Creeks System Drainage Plan" report.



TRACT 13564

LEGEND

-  NATURAL WASH
-  IMPROVED CHANNEL
-  STORM DRAIN PIPE
-  CATCH BASIN
-  HEAD WALL
-  DIRECTION OF FLOW

TRACT 13565

EXHIBIT 8

STORM DRAIN SYSTEM

SAN BERNARDINO COUNTY, CALIFORNIA



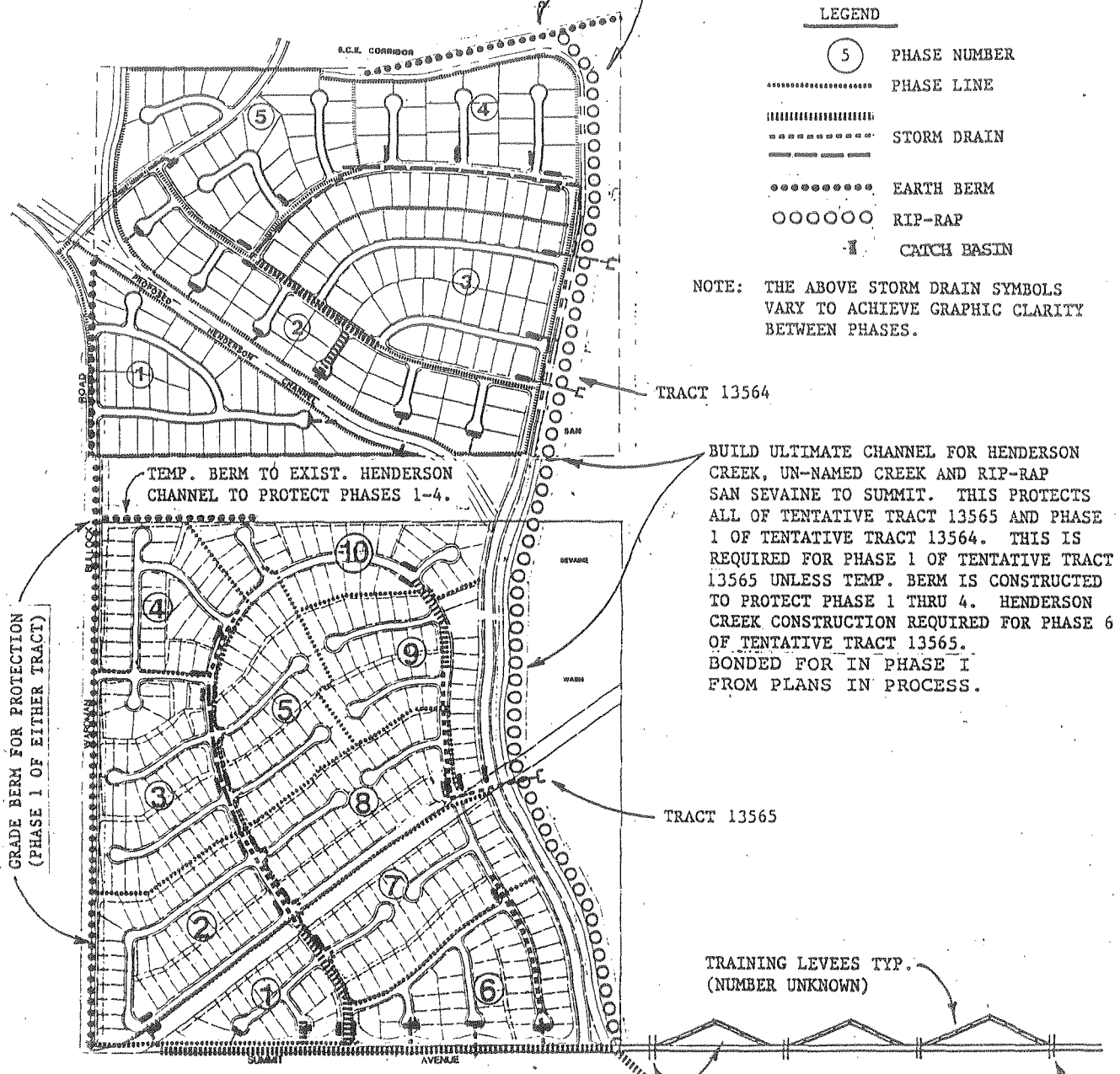
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BERM TO PROTECT FROM MORRIS CANYON AND RIP-RAP ALONG SAN SEVAINE. CONSTRUCT AS PART OF PHASE 2 TENTATIVE TRACT 13564.



NOTE: THE ABOVE STORM DRAIN SYMBOLS VARY TO ACHIEVE GRAPHIC CLARITY BETWEEN PHASES.

BUILD ULTIMATE CHANNEL FOR HENDERSON CREEK, UN-NAMED CREEK AND RIP-RAP SAN SEVAINE TO SUMMIT. THIS PROTECTS ALL OF TENTATIVE TRACT 13565 AND PHASE 1 OF TENTATIVE TRACT 13564. THIS IS REQUIRED FOR PHASE 1 OF TENTATIVE TRACT 13565 UNLESS TEMP. BERM IS CONSTRUCTED TO PROTECT PHASE 1 THRU 4. HENDERSON CREEK CONSTRUCTION REQUIRED FOR PHASE 6 OF TENTATIVE TRACT 13565. BONDED FOR IN PHASE I FROM PLANS IN PROCESS.

GRADE BERM FOR PROTECTION (PHASE 1 OF EITHER TRACT)

TEMP. BERM TO EXIST. HENDERSON CHANNEL TO PROTECT PHASES 1-4.

TRAINING LEVEES TYP. (NUMBER UNKNOWN)

CONSTRUCT TRAINING LEVEES AND 100-YEAR CULVERTS WITH PHASE 6 OF 13565 OR PHASE 1 OF 13564. (SAME REQUIREMENT AS HENDERSON CHANNEL) BONDED FOR IN PHASE I FROM PLANS IN PROCESS.

CULVERTS TO HANDLE 100-YEAR-STORM-

NOTE: THIS PHASING PLAN IS DIAGRAMMATIC AND MAY CHANGE AS DEVELOPMENT OCCURS. THE INTENT IS TO CONVEY THAT DEVELOPMENT WITHIN A PARTICULAR PHASE IS BEING ADEQUATELY SERVED WITH INFRASTRUCTURE IMPROVEMENTS.

EXHIBIT 8A
DRAINAGE PHASING PLAN

SAN BERNARDINO COUNTY, CALIFORNIA

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A Bureau of Reclamation project under the Bureau's Small Reclamation Projects Act of 1956 is proposed for San Sevaine and Etiwanda Creek improvements from the mouth of the canyons southerly to the south Fontana area. The flood control facilities proposed for this development are consistent with and will be coordinated with the Bureau of Reclamation project.

In addition to the above referenced studies, a hydrology analysis and report for the entire San Sevaine Creek watershed is presently being finalized by Bill Mann & Associates and Hall & Foreman. The hydrology developed in the overall San Sevaine Creek watershed study will be utilized in this development.

b. Existing Conditions

The subject site is located at the base of the San Gabriel mountains. There are three major drainage courses that traverse or parallel the subject site. These are the existing Henderson Canyon channel that traverses the site in a southeasterly direction, and Morse and San Sevaine Canyons that outlet into the San Sevaine Creek spreading grounds which are located along the east boundary of the site. A smaller, unnamed drainage course enters the site at the northwest corner.

Henderson Canyon channel traverses the site in an earth channel within a Flood Control District easement. Henderson Canyon has a drainage area of approximately 450 acres at the canyon mouth which is located approximately 4,000 feet northwest of the site. The Henderson Canyon drainage area is approximately 720 acres at the west tract boundary.

Morse Canyon outlets into the spreading grounds near the northeast corner of the site. Morse Canyon is a well-defined drainage course north of the site, but has taken various flowpaths over the years within the spreading grounds from the canyon mouth to Summit Avenue. There is no evidence Morse Canyon has ever traversed the site. Morse Canyon has a drainage area of approximately 590 acres above the canyon mouth.

San Sevaine canyon enters the San Sevaine spreading grounds approximately 1,000 to 1,200 feet east of the east site boundary. San Sevaine Creek has a drainage area of

approximately 1,280 acres above the canyon mouth. San Sevaine Creek flows traverse the wash in a meandering, southerly direction generally following the easterly side of this wash.

The San Sevaine spreading grounds is located adjacent and along the east site boundary from the toe of the foothills southerly to Summit Avenue. The spreading grounds is approximately 1,000 to 1,500 feet in width and serves as the outlet for Morse Canyon, San Sevaine Creek and other smaller drainage courses. The Flood Control District holds a drainage easement over the spreading grounds.

The unnamed drainage course that enters the northwest corner of the site has an approximate 235-acre drainage area. The Flood Control District holds a drainage easement over the drainage course.

The San Sevaine basins are located east and south of that portion of the site south of Summit Avenue. The Lower San Sevaine basin is located along the south boundary of the site.

There are several small drainage swales that enter the site at the northeast corner.

The expansion of the regional flood control facility will prevent the necessity of developing onsite temporary, high maintenance, detention basins.

c. Proposed Flood Control Improvements

As indicated above, there are several natural or semi-improved drainage courses that affect the proposed development. These include the Henderson Canyon channel that traverses the site and an unnamed drainage course that enters and parallels the northwest corner of the development. Morse Canyon outlets into the San Sevaine spreading grounds near the northeast corner of the site and San Sevaine Canyon outlets into the spreading grounds approximately 1,000 feet east of the site. There are several small, natural drainage courses that enter the northeast portion of the site from the north. The west site boundary may be subject to minor sheet flow from the area to the west.

1. Henderson Canyon Channel

Henderson Canyon channel will be designed as a concrete channel through the development with a bulked 100-year frequency design flow to handle debris. The channel system will be designed with a flared inlet at the west site boundary to receive flows from the existing semi-improved channel and levee extending to the northwest from the site. The channel will intercept flows from the unnamed drainage course that parallels the west site boundary north of the proposed channel.

The Henderson Canyon channel will outlet into the San Sevaine Creek spreading grounds east of the east site boundary. A rock splash pad or other form of energy dissipator will be utilized to reduce channel flow velocity.

The preliminary hydrology and hydraulic calculations are included in the referenced drainage report.

2. ~~Unnamed~~ Wardman Drainage Course
(northwest corner of site)

The ~~unnamed~~ Wardman* drainage course enters the site at the northwest corner and parallels the west site boundary for a distance of approximately 1,000 feet. The drainage course has a drainage area of approximately 235 acres. A concrete lined channel section is proposed, designed to provide for 100-year frequency design bulked flow. The channel will confluence with the proposed Henderson Canyon channel.

3. Morse Canyon Flow

Morse Canyon flows do not enter the site, but cut across or near the extreme northeast corner of the site as the canyon outlets into the San Sevaine Creek spreading grounds. The canyon is well defined north of the site. Sufficient channelization and levee work will be provided to confine the flow and outlet the flow into the spreading grounds. The work within the spreading grounds will be minimized.

A grouted rock levee will be provided along the east site boundary to prevent any possible overflow into the proposed development from Morse Canyon after it enters the spreading grounds. The levee will extend southerly to the Henderson Canyon channel outlet and will be

*Indicates September 1, 1988 revision.

located along the west edge of the Flood Control District easement.

Morse Canyon flow will be directed to the center of the spreading grounds. The possibility of San Sevaine Creek flows cutting to the west side of the spreading grounds at this location is remote, however, the levee will confine any flows to the wash in the event Morse Canyon flows parallel the east boundary of the site.

4. Henderson/Morse Flow

The Henderson Canyon channel will outlet into the spreading grounds at the approximate center of the east site boundary and the San Sevaine Creek spreading grounds. The channel flow will be directed southerly to preserve the trees within the wash. At this time, it appears that one oak will be displaced and will be either replanted or replaced per County requirements. A levee will be provided along the east site boundary south of the Henderson Canyon channel outlet to Summit Avenue. The levee will be located along and generally within the westerly boundary of the Flood Control District easement.

5. Drainage Flows along North and West Boundaries of Site

There are some relatively minor flows that may cross the north site boundary generating between Morse Canyon and the site boundary. A channel and levee, block wall, berm or some combination of methods will be provided along the north boundary of the site to intercept local drainage flows and direct them to the channel to the west or the wash to the east.

A FEMA floodplain work print map in the technical report shows a potential sheet overflow of the southwest corner of the site above Summit Avenue. The work print shows an AF Zone with a 1-foot deep overflow from Etiwanda Creek in the event of a breakout upstream. This potential overflow is also shown across the 200 acres south of Summit Avenue.

There is an existing levee and channel construction west of the proposed site to intercept the potential overflow from Etiwanda Creek and direct the flow back to an existing flowpath south of Summit Avenue. The levee and channel was constructed in 1970 after the "Meyers Watershed Burn".

Any possible overflow directed to the southwest corner of the site above Summit Avenue can be intercepted and directed southerly to an existing wash (old Etiwanda Creek overflow path) south of Summit Avenue.

The southwest corner of the site above Summit Avenue can be protected by the following methods or combination of methods:

~~A 4-foot high perimeter berm along the rear of the lots and tract boundary.~~

A structural block wall along the rear of the ~~lots~~ Eastern R.O.W. of Wardman Bullock Road.*

The grading of future Wardman-Bullock Road along the west tract boundary.

If one or a combination of the above methods are provided to protect the southwest corner of the site above Summit Avenue, any overflow will be directed to the existing overflow wash south of Summit Avenue. This will remove any overflow potential from the 200 acres south of Summit Avenue.

d. Watershed Protection

The major watershed areas for Henderson Creek, Morse Creek and the small unnamed drainage course at the northwest corner of the development are the canyon areas above the power line, the spreading grounds and lower basin areas. As indicated in the technical report subtopic "Regulation of the San Sevaine spreading grounds", the San Sevaine spreading grounds is being left intact and any work in the spreading grounds will be limited and minimal.

A flood protection levee is proposed along the west edge of the spreading grounds. The easterly edge of the proposed development was moved westerly to preserve the wash habitat. The levee location was coordinated with the Biological Assessment on the wash area prepared by Karlin Marsh. Although the realigned Henderson Canyon channel will outlet into the wash, the outlet will be above the predominant wash habitat and the disturbance in the wash will be minimal. It is not intended to alter the existing outlet of Morse Canyon into the wash (spreading grounds) near the northeast corner of the proposed development.

*Indicates September 1, 1988 revision.

There is no development proposed north of the upper power line corridor, therefore the mouth of the canyons will not be disturbed.

The flood control and drainage protection measures will be designed and constructed to minimize any effect on the watershed areas. The disturbed areas, including roads and the cut and fill areas within the development, will be planted to control erosion. The onsite drainage facilities will be designed and constructed to control erosion potential.

e. Regulation of San Sevaine Spreading Grounds

A Biological Resource Assessment of the San Sevaine Creek spreading grounds north of Summit Avenue has been prepared by Karlin G. Marsh, Biological Consultant. The assessment was prepared in conjunction with the proposed Bureau of Reclamation San Sevaine Creek Water Project as is discussed below. A detailed biological resource assessment for this P.U.D. was also prepared and follows later in this text.

The Karlin G. Marsh assessment describes the spreading ground area as containing "mature alluvial fan woodland-savannah in the lower portions of the fan (immediately north of Summit Avenue), intergraded with areas of alluvial scrub and some chamisal and white sage scrub further north". Reference is made to the Assessment and Supplemental Attachment dated August 21, 1986, for a detailed analysis.

Ms. Marsh describes the most southerly portion (approximately 2,000 feet northward from Summit Avenue) to be most significant and predominantly an alluvial fan woodland-savannah.

As described above under "Flood Control Procedures", a levee with grouted rock slope protection is proposed along the west edge of the spreading grounds. The proposed levee will generally follow the existing San Bernardino County Flood Control easement and is proposed to protect the development from possible meandering Morse and San Sevaine Canyon flood flows. The proposed levee has been located to minimize any effects on the wash area and is located westerly of the existing trees. The southerly 1,200 feet of the proposed levee follows the existing Henderson Creek channel for the most part.

It is reiterated that the proposed levee for this P.U.D. will follow the recommendations made in the referenced "Biological Resource Assessment" by Ms. Marsh and in consultation with her. A portion of the Marsh report is included herein for reference purposes:

"In addition, no transverse levees are proposed in the San Sevaine spreading grounds. Streams will be permitted to meander naturally across the floodplain. The south end of the west levee (north of Summit Avenue) will be aligned so that it is more or less due north of the west levee (existing) of the basins below Summit Avenue. Northward, the levee will veer gently to the west. This alignment appears to incorporate all or nearly all of the alluvial fan mountain Mahogany and Walnut woodlands within the spreading basin."

"The resultant design, modified to maximize retention of significant habitat, protects as wilderness open space one of the most important alluvial fan habitats in the project region."

A review of the proposed development plan, including the west levee, in conjunction with the excerpt from the Biological Assessment will indicate the wash area habitat is being preserved.

It is proposed to outlet the realigned Henderson Canyon channel into the spreading grounds approximately 100 feet in length. The channel outlet has been aligned downstream to miss the referenced trees in coordination with recommendations by the Flood Control District.

The Henderson Canyon channel outlet is north of the most significant area referenced in the Marsh report (area between Summit Avenue and 2,000 feet north of Summit Avenue) and will have minimal effect on the wash habitat, if any.

The potential for groundwater pollution due to urban runoff has been reviewed with the California Regional Water Control Board, Santa Ana Region, in conjunction with the preparation of a Loan Application for the Bureau of Reclamation San Sevaine Creek Water Project. The proposed water project includes the area

proposed for development, utilizing the San Sevaine Creek spreading grounds and downstream basins for groundwater recharge with prevention control of water pollution.

The Water Quality Control Board has indicated they see no problems in the proposed San Sevaine Creek Water Project from a water quality standpoint even though over 50% of the proposed "conserved" water will be from urban runoff into a recharge basin. The proposed development is within the San Sevaine Creek Water Project watershed area. A urban runoff monitoring program and a program to control and/or clean up accidental spills of hazardous materials are proposed as a part of the San Sevaine Creek Water Project.

6. Utilities

The telephone, gas, and electrical utilities are currently located in the area, and would be brought to the property and constructed within the project by the developer. The maintenance of the utilities would be performed by the utilities themselves, and the cost would be borne by a monthly charge to the individual homeowner.

a. Electricity

Electricity in the project area is provided by Southern California Edison. On-site connections will be made by underground conduit. The project site will be adequately serviced by up-sizing existing facilities.

b. Natural Gas

The Southern California Gas Company provides natural gas to the project area. Service systems will be designed by the Gas Company offices to accommodate the demands of the project site as the project develops.

c. Telephone

General Telephone Company provides telephone service to the project area. Specific plans for

on-site service will be drawn up by General Telephone at the time of development.

D. COMMUNITY FACILITIES

1. Schools

The project site will be served by the Etiwanda School District (K-8) and Chaffey Joint Union High School. Preliminary discussions with Carleton Lightfoot, District Superintendent, indicate that with 546 homes the site will generate approximately 328 K-8 students, 109 of which would be intermediate level (grades 6-8) and 219 which would be elementary level (K-5). The intermediate school students are able to be accommodated at the Etiwanda Intermediate School. The elementary school students will be located at a site yet to be determined by the school district. The developer will be required to pay fees to the district based upon the square footage of residences built in the project site and in addition a voted override tax fee of \$1,600 per dwelling unit, or the dedication of a school site with the district's concurrence, or any combination thereof as determined by the Etiwanda School District.

2. Police and Fire Service

Police protection for the project site is provided by the San Bernardino County Sheriff's Department, Fontana Substation, located at 1780 Arrow Highway in the City of Fontana.

For the projected population of approximately 1425 residents, the site would generate a need for approximately 1.5 officers or 60 hours per week.

Fire protection will be provided by the Foothill Fire District. The nearest fire station is located to the southwest of the site, at 12158 Baseline, east of Milliken Avenue. The fire district is seeking to establish a mello-roos for the area to finance future service needs. The Caryn Company has expressed a willingness to vote for the mello-roos if this finance mechanism is needed.

3. Parks and Recreation

Recreational opportunities available within the West Valley Foothills planning area currently include informal use of open and undeveloped land for hiking, equestrian and motorcycle use. Forest Service Trail IN34 provides public access

into the National Forest and other trails that lead to Mt. Baldy, Cucamonga Peak, Lytle Creek, and Pacific Coast Trail, among others.

Two regional parks are within a reasonable distance to the West Valley Foothills planning area. Cucamonga-Guasti Park encompasses fifty-four (54) acres and is located approximately nine miles southwest of the planning area. Glen Helen Park is a five hundred (500) acre park located approximately six miles northeast of the planning area on Interstate 15.

Other regional recreational facilities have been proposed for the West Valley Foothills, including a regional park between Deer and Day Creek. In addition, equestrian and hiking trails have been identified in the County's Master Plan and the City of Rancho Cucamonga's General Plan. The plans call for a regional east-west trail at the base of the foothills, connecting local trails adjacent to major drainage courses and/or utility service roads, fire trails, and flood control service roads and washes.

Although the County has no open space or park requirement, the Caryn Company is voluntarily preserving approximately 37 acres of open space along the San Sevaine wash within this P.U.D.. This preserved area enhances the character of the P.U.D. as well as the surrounding area and will remain in its natural condition for hiking and other passive uses.

E. FINANCING ALTERNATIVES

The provision of infrastructure and community facilities may be accomplished by developer funds and various fees, dedications and donations; the Developer may however, also establish with County cooperation a master Mello-Roos or other assessment district financing to lower the cost of financing such facilities.

Although such alternate financing is not required or needed for this project, the developer is willing to cooperate with the county in such financing if it benefits the county in developing adjacent property.

V. CIRCULATION

A. RELATIONSHIP TO WEST VALLEY FOOTHILLS COMMUNITY PLAN

The proposed project responds to the circulation element within the West Valley Foothills Community Plan. Directive (3), Actions (A) and (C) ask to "adopt road standards that are compatible with those of adjoining communities" and to "coordinate the circulation system with the circulation goals of adjoining communities".

A traffic report has been prepared for the site with input from both County and City of Rancho Cucamonga officials and is included in the technical report in the Appendix. The circulation plan proposed by this P.U.D. is a result of input by both City and County, and will provide residents access to roads which are compatible in character and standards of adjoining communities.

B. PROPOSED CIRCULATION CONCEPT

Exhibit 9 outlines the circulation concept. Exhibit 12 refers to the cross-sections AA-KK for each typical road condition. Exhibit 11 provides a key map for each of the cross-sections.

C. PROTECTION OF SCENIC HIGHWAYS

There are no scenic highways in the immediate area of the project site; however, in the event that any are proposed in the near future, consideration will be given to the guidelines set up by the regulating authority.

D. TRAILS

Exhibit 10 reflects the equestrian trails designated for the area within the West Valley Foothills Community Plan. The trail along Summit Avenue will be located on the south side of the street, per the standards of the City of Rancho Cucamonga. An alternate location for the trail has been shown in the typical cross-sections following page 29. An additional trail is to be located within the northerly Southern California Edison Corridor as required by the West Valley Foothills Plan. Trails outside the site shall not be required to be constructed by the Developer.

LEGEND

LOCAL RESIDENTIAL WITH DRIVEWAYS (50' ROW)

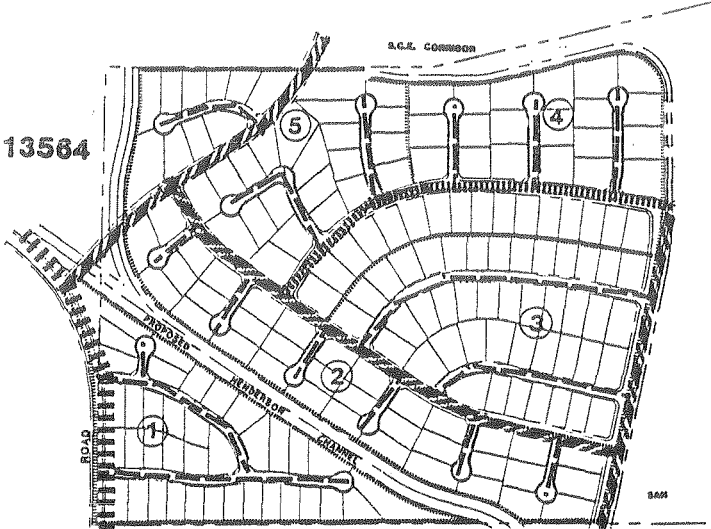
LOCAL RESIDENTIAL WITH DRIVEWAYS (60' ROW)

LOCAL RESIDENTIAL WITHOUT DRIVEWAYS (60' ROW)

COLLECTOR STREET (66' ROW)

SECONDARY ARTERIAL (88' ROW)

TRACT 13564



TRACT 13565

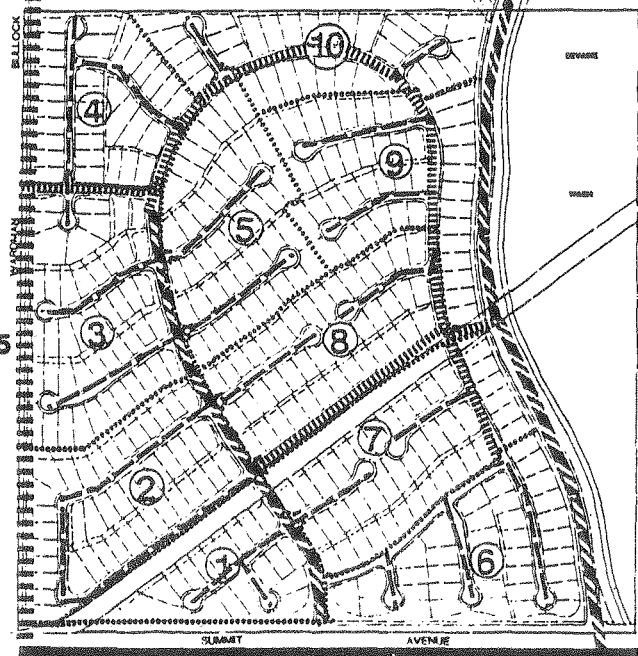


EXHIBIT 9

CIRCULATION PLAN

SAN BERNARDINO COUNTY, CALIFORNIA

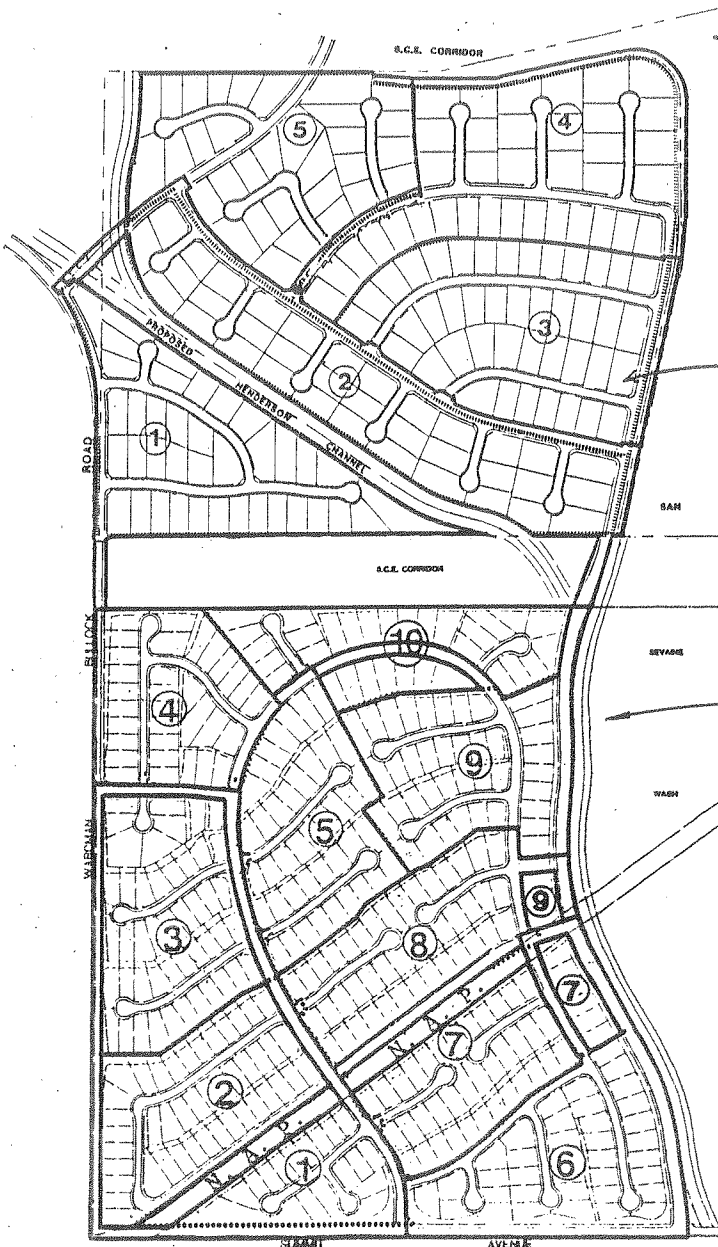


ETIWANDA / SAN SEVAINE PLANNING AREA

THE CARYN COMPANY
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TRACT 13564

TRACT 13565

NOTE: REFERENCE IS MADE TO THE PROJECT PHASING PLAN WHICH INDICATES THE CONFIGURATION OF THE FINAL MAPS FOR THE PROJECT. SEPARATE DEDICATION DOCUMENTS WILL BE RECORDED FOR EACH PHASE FINAL MAP FOR ANY PORTIONS OF THE CIRCULATION ROADWAY LYING OUTSIDE OF THE PHASE BOUNDARY.

EXHIBIT 9A

CIRCULATION PHASING PLAN

SAN BERNARDINO COUNTY, CALIFORNIA



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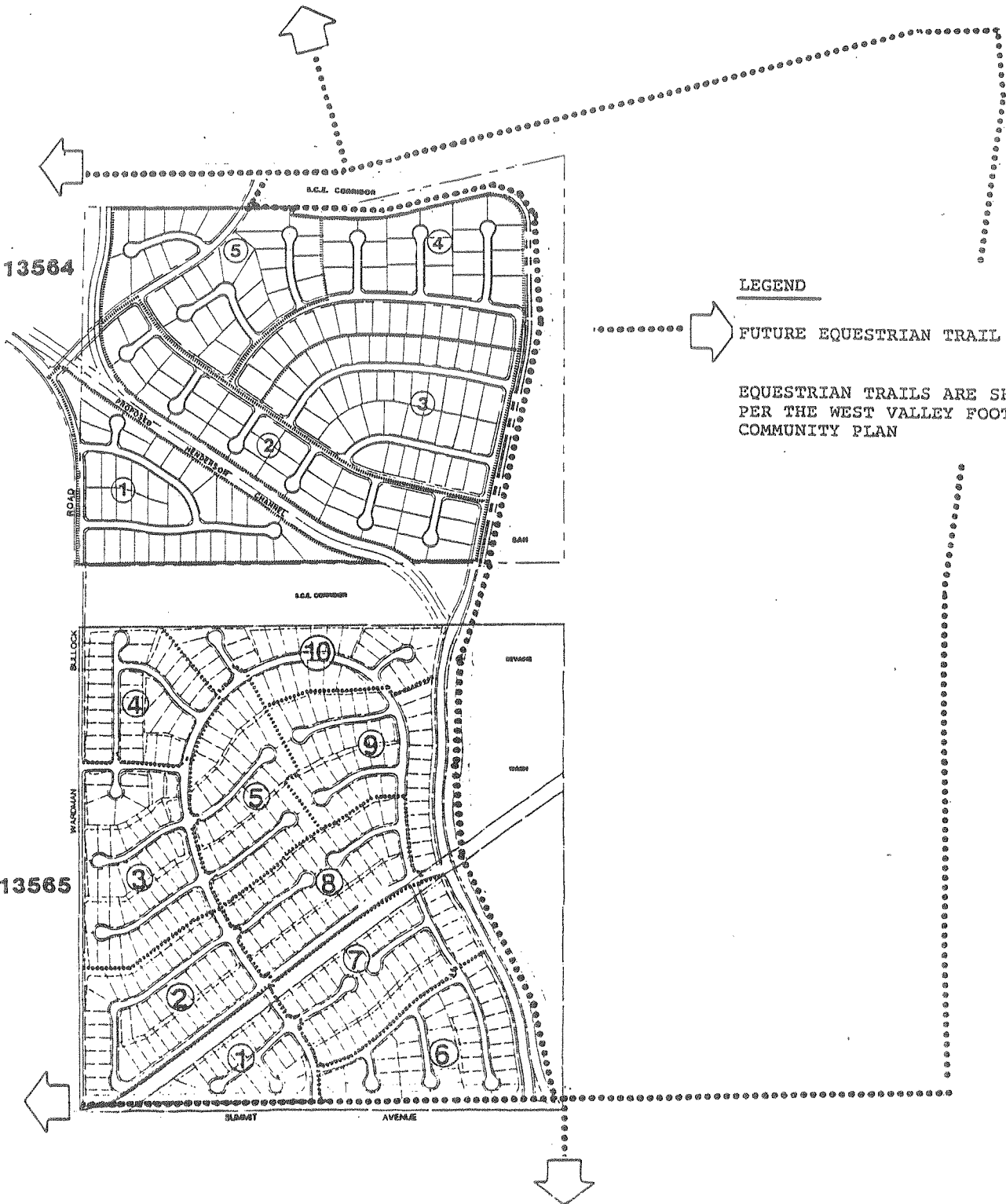


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TRACT 13564

TRACT 13565



LEGEND

FUTURE EQUESTRIAN TRAIL

EQUESTRIAN TRAILS ARE SHOWN AS PER THE WEST VALLEY FOOTHILLS COMMUNITY PLAN

EXHIBIT 10
TRAIL SYSTEM

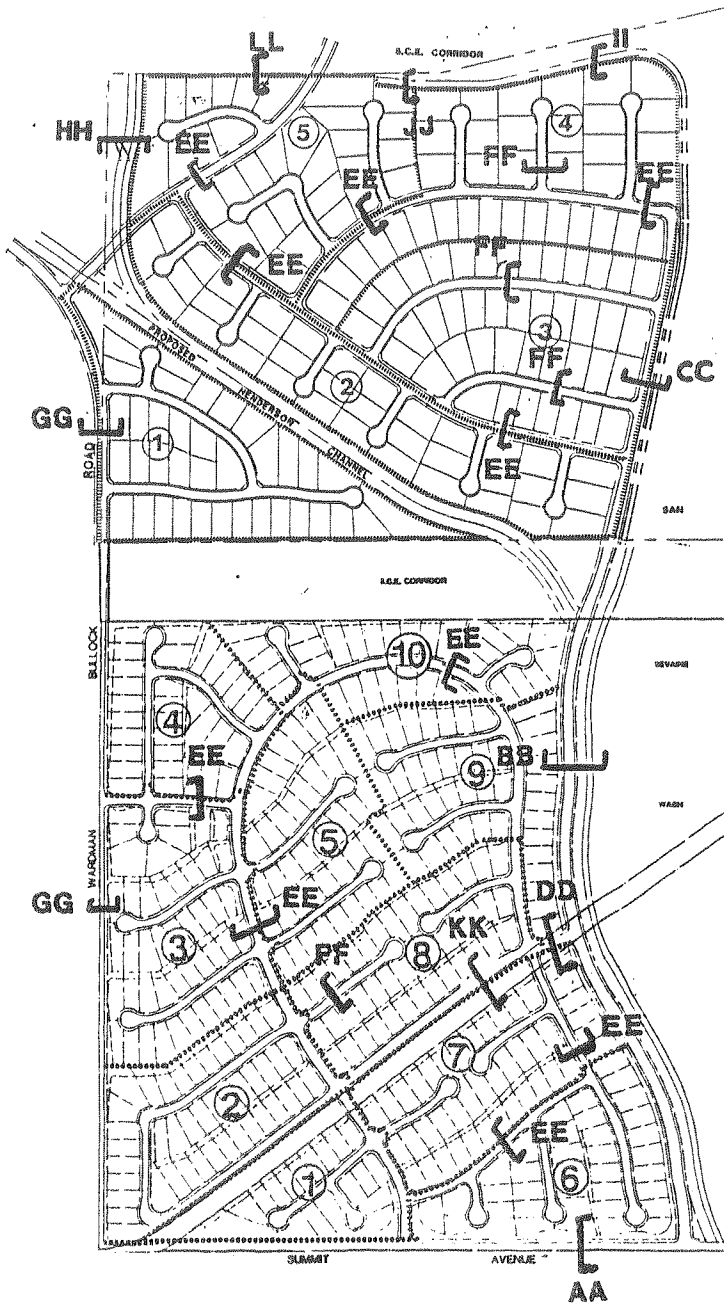
SAN BERNARDINO COUNTY, CALIFORNIA



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PLANNING AREA



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TRACT 13564

TRACT 13565

EXHIBIT 11

SECTION KEY MAP

SAN BERNARDINO COUNTY, CALIFORNIA

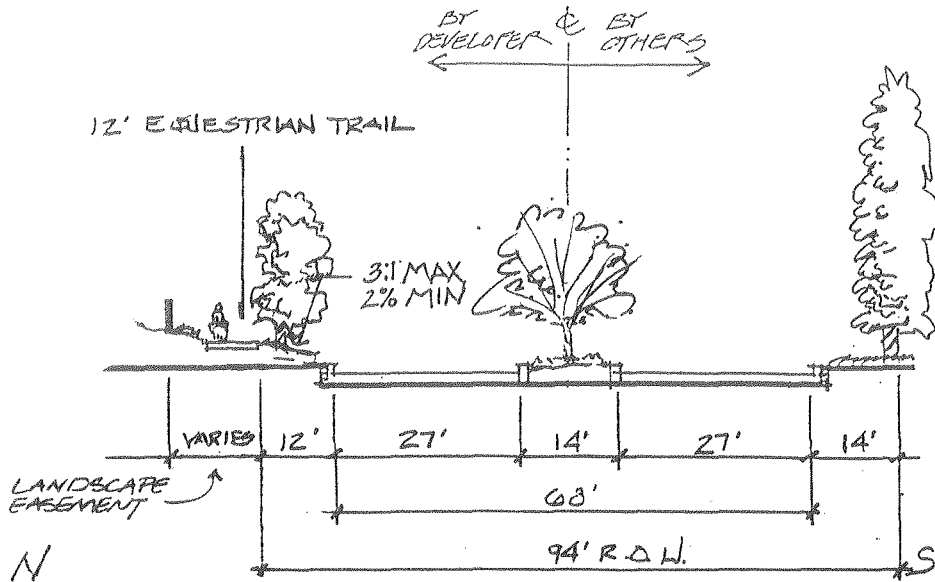


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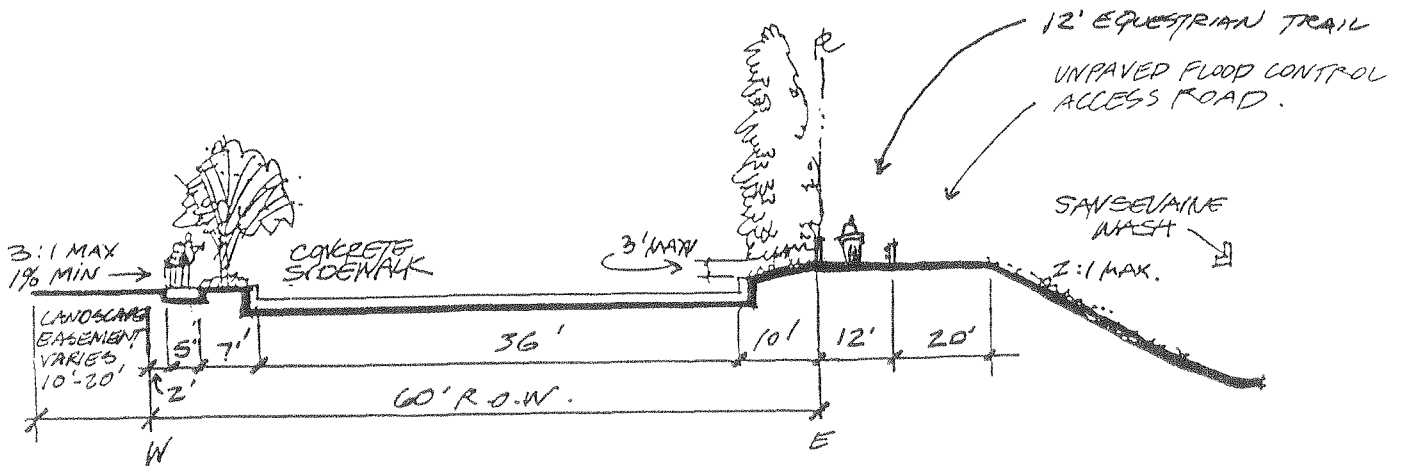


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SECTION AA



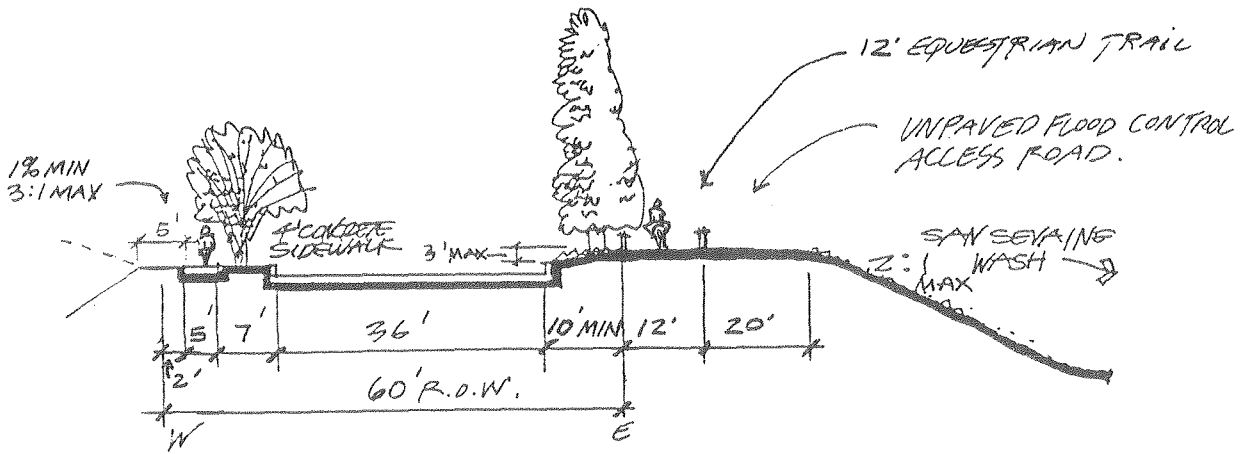
SECTION BB

EXHIBIT 12

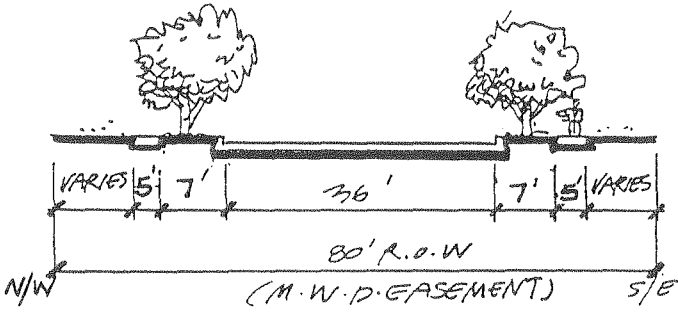
ROAD CROSS SECTIONS

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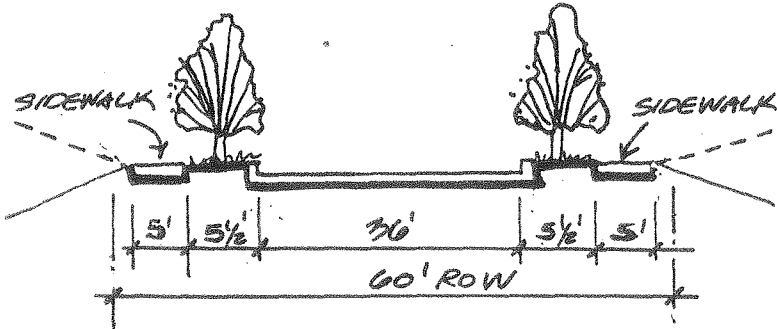
REV. 9/88



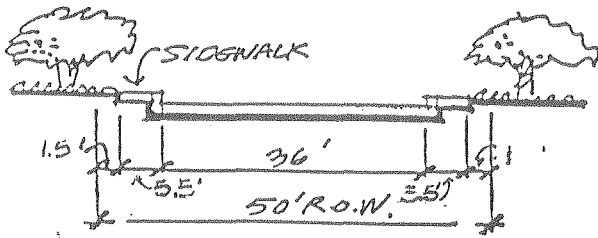
SECTION CC



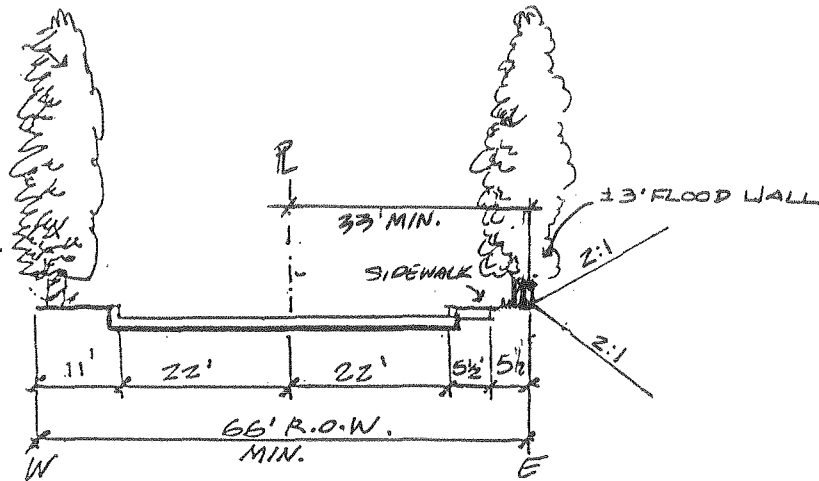
SECTION DD



SECTION EE

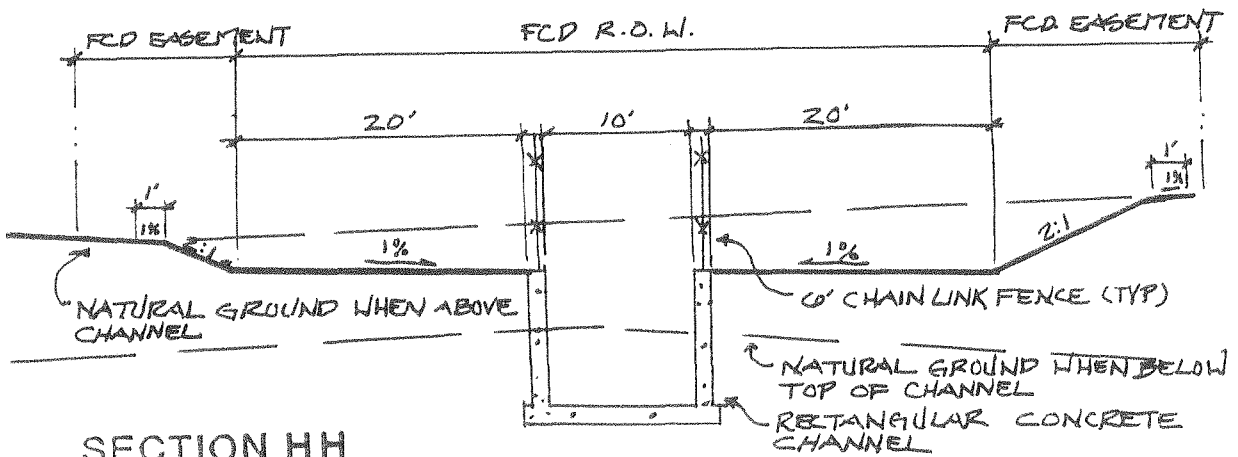


SECTION FF

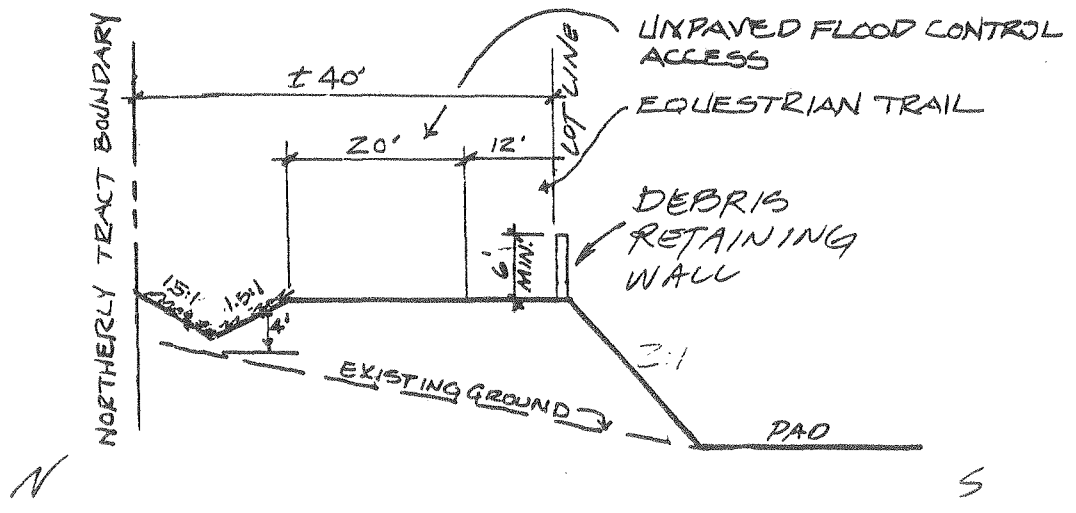
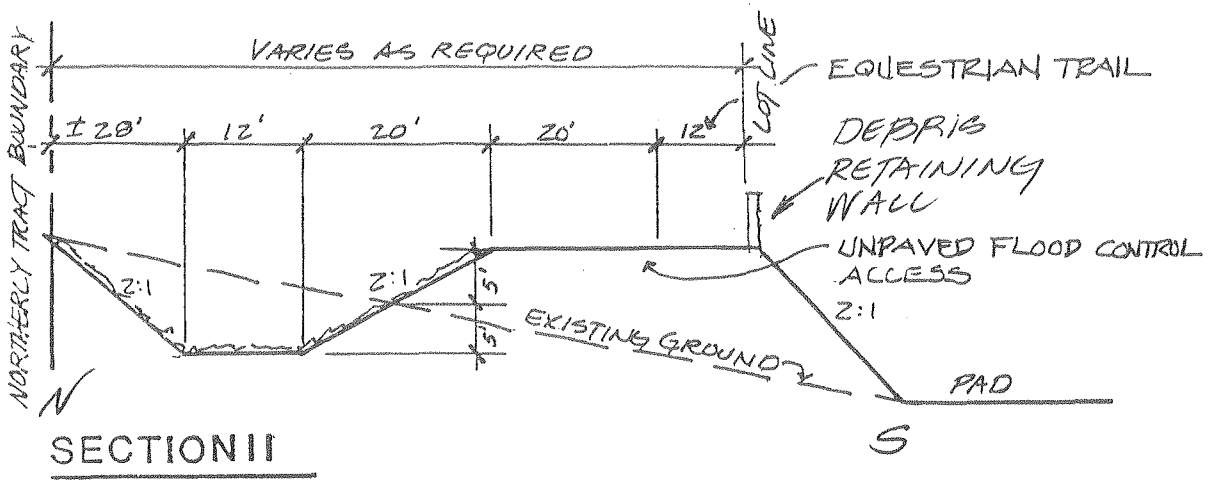


SECTION GG

66' R.O.W. PER WEST VALLEY FOOTHILL COMMUNITY PLAN.



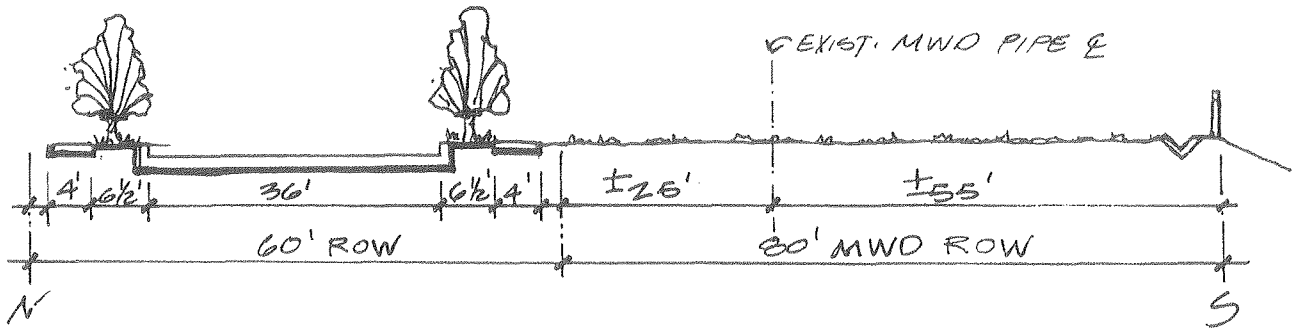
SECTION HH



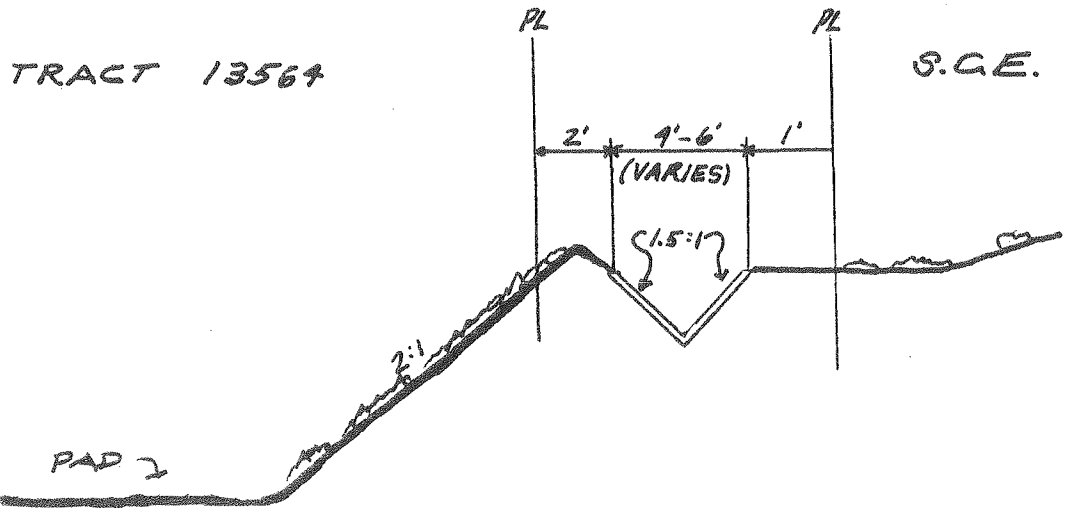
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SECTION KK



SECTION LL

ETIWANDA / SAN SEVAINE
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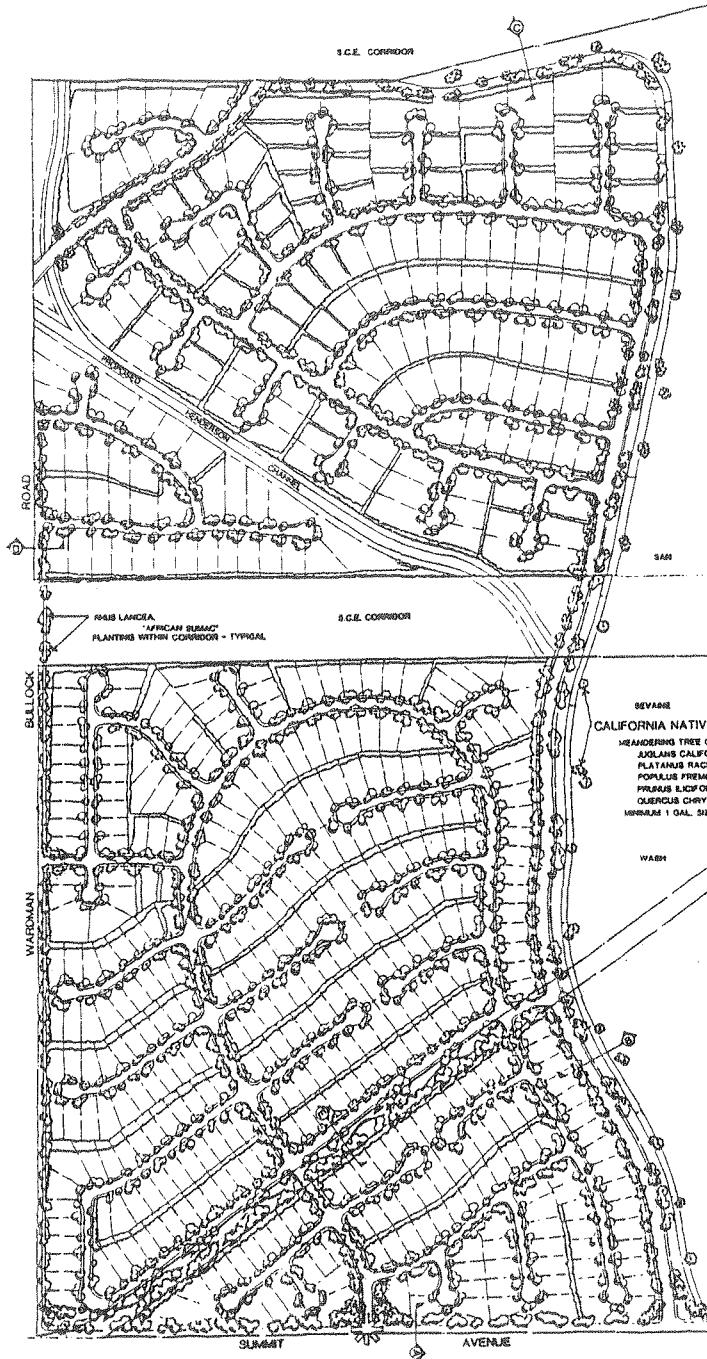
VI. COMMUNITY DESIGN

A. LANDSCAPE CONCEPT

Exhibit 13 depicts the conceptual landscape plan for the community and indicate proposed plant materials. Sections AA-KK referenced above for the circulation plan (Exhibits 11 & 12) also reflect the landscape character within the parkways. Wherever possible, drought tolerant material adapted to the area have been selected. The intent of the plant selection and landscape plan is to create a strong community image through the use of tree masses and street tree plantings. Due to the simplicity of the design, maintenance costs are expected to decrease as the trees mature. Common landscape maintenance costs will be paid through a special assessment on property owners' tax bills as part of a special assessment district. Entry signs/walls may occur on A and/or B street of tract 13565 and 13564. These elements shall be designed to be in character with the surrounding area and with the Etiwanda Specific Plan. Natural materials shall be used for surfaces i.e., river rock, stucco, or wood. No solid grey concrete walls/signs shall be permitted.

B. GRADING CONCEPT

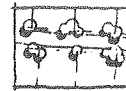
The intent has been to minimize grading within the site. The site has met with the guidelines established by the West Valley Foothill Community Plan by maintaining a 10' recommended maximum height standard throughout the development between top and toe of slopes. Some exceptions may occur on a limited basis such as at flood control protection levees on the north end of the site. These heights are necessary to create the needed protection for the development. *Under 7% of lots within the site will include slopes over 10'.* Nearly all slopes ~~these~~ will be under 15'. In order to achieve slopes less than 10' within rear yards, lots have been graded with a maximum 12% grade within portions of the front and rear yard. In these cases, cross lot drainage may occur. The line between the change in grade of a 2:1 slope and a 12% slope is referenced on the tract maps as a "hingeline". In order to minimize landscape maintenance, slopes within street rights-of-way shall not exceed 3:1. A cut and fill plan is included in the sleeves of the text. Per County standards, fill within site shall not exceed 30'.



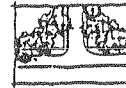
LEGEND



"ESTATES" THEME PLANTING:
 MEANDERING TREE GROUPINGS OF
 ALNUS RHOMBIFOLIA (25%)
 PINUS HALEPENSIS (40%)
 PLATANUS RACEMOSA (35%)
 AVG. ONE TREE 30' O.C. - MIN. 15 GAL SIZE



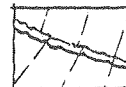
INTERIOR STREET PLANTING:
 MEANDERING TREE GROUPINGS OF
 ALNUS RHOMBIFOLIA (25%)
 LAGERSTROEMIA INDICA (25%)
 TRISTANIA CONFERTA (50%)
 AVG. ONE TREE 30' O.C. - MIN. 15 G/L SIZE
 TREE GROUPINGS TYPICAL MIX EACH STREET



"ESTATES" ENTRY PLANTING
 MEANDERING TREE GROUPINGS OF
 PINUS HALEPENSIS (40%)
 PLATANUS RACEMOSA (60%)
 AVG. ONE TREE PER 400 S.F. - MIN. 15 GAL SIZE

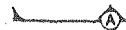


M.W.D. OPEN SPACE PLANTING:
 MEANDERING TREE GROUPINGS OF
 PINUS HALEPENSIS (30%)
 PLATANUS RACEMOSA (30%)
 POPULUS FREMONTI (20%)
 QUERCUS CHRYSOLEPIS (20%)
 AVG. ONE TREE PER 1000 S.F. - MIN. 15 GAL SIZE



HYDROSEED SLOPE PLANTING
 COMBINATION OF EVERGREEN AND FLOWERING
 PLANT SEED MIXTURE ONLY
 FOR SLOPES GREATER THAN 5'

NOTE: TREE GROUPINGS REPRESENT TYPICAL MIX FOR EACH STREET/AREA



SEE SECTION SHEET #3



PRIMARY PROJECT ENTRY
 FOR ENLARGED PLAN & ELEVATION SEE SHEET #4

REFER TO CIRCULATION PLAN AND SECTIONS
 FOR TYPICAL STREET TREE LAYOUT.

EXHIBIT 13

LANDSCAPE CONCEPT PLAN

SAN BERNARDINO COUNTY, CALIFORNIA

NOTE: WARDMAN BULLOCK ROAD, SUNNY AVE., STREET 'B' AND M.W.D. CORRIDOR PARKWAYS SHALL BE INSTALLED WITH LANDSCAPE AUTOMATIC IRRIGATION, EXCEPT TREES WITHIN SAN SEVAINE WASH WHICH SHALL BE NATIVE AND NON-IRRIGATED. ALL OTHER STREET TREES SHALL BE INSTALLED BY BUILDER PRIOR TO OCCUPANCY OF HOMES AND BE WATERED MANUALLY UNTIL OCCUPANCY. PARKWAY GROUND COVERS AND LAWNS WITHIN THESE AREAS TO BE PLANTED AND IRRIGATED BY HOMEOWNER. TURF IS PERMITTED ON AREAS OF 3:1 GRADIENT OR LESS. FRONT YARD LANDSCAPING / STREET SIDE LANDSCAPING IS NOT REQUIRED, EXCEPT THAT STREET TREES WILL BE PROVIDED BY DEVELOPERS.



NORTH



ETIWANDA / SAN SEVAINE
 PLANNING AREA

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VII. CONSERVATION AND OPEN SPACE

A. PRESERVATION OF NATURAL RESOURCES

1. General

The West Valley Foothills are characterized by a variety of natural resources. The complex hill and canyon landforms which supply the scenic backdrop to the valley floor also provide the natural habitat for wildlife, and the watershed for ground water recharge. Much of the scenic value of the regional planning area, today is attributed to its natural features.⁴

Development impacts will be minimized by proper planning and management. Attention will be given to proper grading practices, to conserve topsoil and prevent erosion. If approved by a soil engineer, grades may reach a maximum ratio of 1-1/2:1 ratio when used for contouring purposes in limited areas.

To maintain the feeling of the natural landscape and to integrate this project into the adjacent communities, attention will be given to the use of landscape materials that are native and/or drought tolerant, and which are similar to those found in adjoining communities.

2. Biological Resources

A biological resources survey of the site was conducted by Michael Brandman Associates, Inc. (MBA) in late December 1986. It is included within the Appendix. This section summarizes the findings of the survey.

a. Resource Description

The project, on the southeastern flank of the San Gabriel mountains, is in an area transitional between the intensely hot and arid climate characteristic of the California deserts and the milder Mediterranean-type climate of California's coastal slope.

The site is surrounded by open space on three sides, with Summit Avenue delineating its southern border. The site and surrounding area serve as a large floodplain. San Sevaine wash courses north to south along the eastern border of the site and Henderson channel cuts diagonally across its center.

b. Vegetation

Vegetation on the project site consists of two plant communities--grassland and alluvial fan scrub. Refer to Exhibit 15. The majority of the area has been moderately to severely disturbed by flood control projects, grazing and possibly dryland cultivation. Grassland is the dominant plant community onsite. Due to heavy and prolonged disturbance in the past, it is now dominated by introduced annual grasses and forbs of Mediterranean origin. Dominant species are wild oats, brome grasses and Mediterranean schismus. Given the disturbed nature of the onsite grassland, species diversity can be expected to be low. Fast growing plants adapted to survival in disturbed areas (mostly nonnative ruderal species) predominate. They generally outcompete native species, such as bunchgrasses, as they are preadapted to live in areas of high disturbance.

The second plant community on the project site is Riversidian alluvial fan scrub. This community occupies most of San Sevaine wash, the area along the margin of smaller drainages and large, less hydrologically active areas in the northern and western portions. Alluvial fan scrub is best developed onsite in San Sevaine wash, where typical plant species are scale-broom, black sage, California buckwheat and coastal prickly pear cactus. Other well-developed areas of alluvial fan scrub are found along the northern edge of the site where black sage and buckwheat are largely replaced by white sage, coastal sagebrush and California croton. A few larger scrubs and small trees can be found in the northwestern section and in San Sevaine wash. These include western mountain mahogany, holly-leaved cherry, chaparral whitethorn and an occasional California sycamore, California black walnut and canyon oak.

Much of the remaining alluvial fan scrub on the site is rather poorly developed, consisting primarily of California buckwheat with large interstices covered with annual grassland.

c. Wildlife

Wildlife species typically associated with grassland and foothill scrub-shrub communities predominate on the site. Birds are the most abundant and conspicuous species, followed by

small mammals and reptiles. No amphibians were located during the survey, but two frog species can be expected. Common lizards encountered were the widespread western fence lizard, side-blotched lizard and western whiptail. A variety of snakes can be expected, but none is especially abundant.

Common birds observed or expected to occur on the site are the house finch, brown towhee, morning dove, Bewick's wren, common raven and red-tailed hawk. The greatest diversity of birds occur in the well-developed alluvial fan scrub where Henderson channel enters the site.

Conspicuous mammal species observed on the site were the California ground squirrel and desert cottontail. Mule deer sign (scat and tracks) were abundant within the SCE easement. Several species of nocturnal mammals are also expected to be common, such as the desert woodrat, San Diego pocket mouse, several species of deer mouse, striped skunk and coyoted.

d. Sensitive Biological Resources

No state- or federally-listed rare, threatened or endangered species of plants or animals were seen on the site, nor have any been reported in the past. Special attention was paid to those areas potentially supporting rare or sensitive species.

One federally endangered plant species, the slender-horned centrostegia, is found on undisturbed low benches of alluvial fan scrub in the project vicinity, and the potential for its occurrence on the site exists. The coast horned lizard, a candidate species for federal listing as threatened or endangered, may also occur in small number. It has been observed recently south of the site. The golden eagle, a species that is fully protected under the California Fish and Game Codes and the Federal Bald Eagle Protection Act, may also forage in the area occasionally, although its nearest nesting habitat is several miles away in rugged, inaccessible area of the San Gabriel and San Bernardino mountains.

Riversidian alluvial fan scrub is designated by the California Natural Diversity Data Base, a California Department of Fish and Game affiliate, as a plant community requiring a high priority status for preservation, as a result of

rapid and continuing development within this habitat type in the regions in which it occurs.

2. Environmental Impacts and Recommended Mitigation

Impacts associated with project implementation will consist of 1) conversion of 85 acres of Riversidian alluvial fan scrub; 2) removal of approximately four (4) eucalyptus, two (2) sycamores, and one (1) or two (2) canyon oaks; 3) altered hydrologic conditions (and consequent affects on vegetation) resulting from minor modification of San Sevaine wash for construction of a levee and the alignment of Henderson channel; 4) restriction of wildlife movement corridors through the area; 5) the displacement of wildlife into areas of adjacent open space; and 6) the introduction of pets and other nonnative wildlife into the area.

To mitigate these impacts to a level of nonsignificance, the following measures are proposed: 1) dedicate approximately 35 acres of well-developed Riversidian alluvial fan scrub in San Sevaine wash to the County (includes all open space areas east of B Street right of way); 2) enhance native vegetation in San Sevaine wash by planting trees native to the area on the banks of the levee (unirrigated) between the community and the wash. 3) use native alluvial fan scrub plant species in the community landscaping palette, including trees of the same species removed during construction; 4) restrict grading and construction vehicles and equipment within the San Sevaine wash if feasible; and to 5) provide the opportunity for the transplantation and protection of the endangered slender-horned entrostegia in appropriate habitat within the SCE easement of San Sevaine wash if this should prove feasible.

B. PRODUCTION OF NATURAL RESOURCES

Within the vicinity of the West Valley Foothills planning area, there are two known reserves of high quality aggregate, an essential building material. While production of these materials is not economical on the project site, a commercial rock quarry is proposed approximately 3 miles to the west of the site, at the Day Creek spreading grounds, to extract this material.

C. OUTDOOR RECREATION

Walking, jogging, bicycling, roller skating and the like are provided within the community, and sidewalks/pathways allow access to regional open space.

D. PUBLIC HEALTH AND SAFETY

The General Plan of San Bernardino County and the West Valley Foothill Community Plan include sections on Public Health and Safety that are intended to introduce safety considerations into the planning process. These include: wild fires, flooding, soil erosion and seismic activity. Prevention measures for the first three hazards, wild fire, flooding and soil erosion are discussed below; seismic hazards are covered in Section VIII.

1. Wild Fires

According to the Health and Safety maps of the San Bernardino Consolidated General Plan, approximately 75% of the Foothill planning area is within the high wildland hazard zone due to a combination of highly flammable vegetation, limited accessibility to rugged terrain and climatic conditions.

The threat of wildland fire can be reduced by respecting the following development standards. These standards include:

- a. use of fire resistant construction materials
- b. provision of appropriate transportation corridors for fire truck access
- c. establishment of fire buffers where appropriate
- d. provision of adequate water lines, fire hydrants, and flows in accordance with the criteria established by the Foothill Fire Protection District, and
- e. provision for irrigation of landscaped slopes which exceed five feet in vertical height.

A draft greenbelt ordinance developed within the County of San Bernardino addresses fire hazards and mitigation measures within the West Valley Foothills community plan area. This site falls within Hazard Area II. Mitigation measures identified in the Hazard II Area shall be made a

part of this P.U.D. if the measures are adopted by the County.

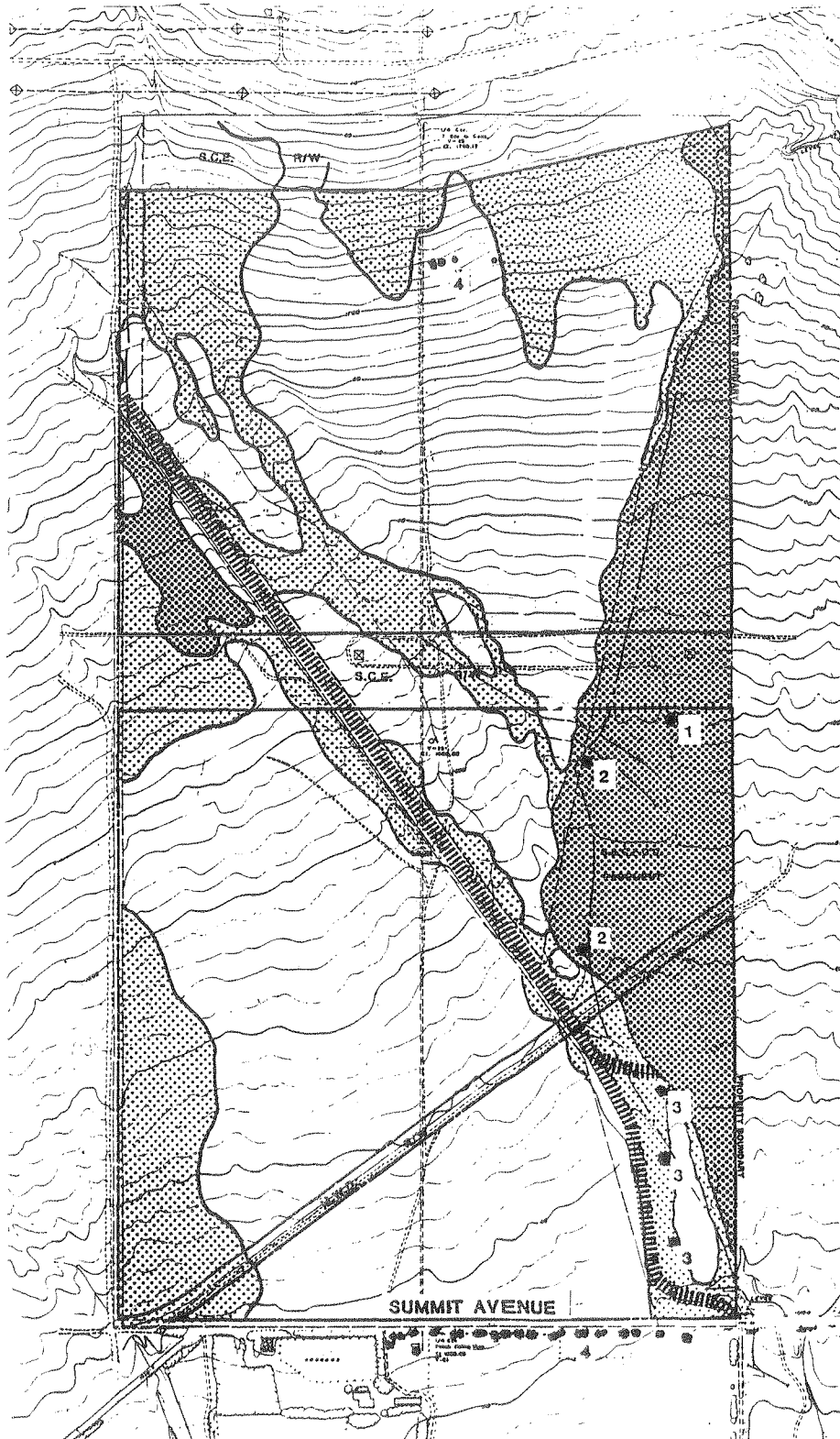
2. Flooding

Flood control has been addressed in Section IVc of this P.U.D. under Infrastructure.

3. Soil Erosion

The P.U.D. provides for protection of slope areas to minimize erosion. Mitigation measures include:

- a. moisturizing soils during construction to minimize wind erosion
- b. using soil stabilization controls during grading phases
- c. maintaining moderate height cut and fill slopes at angles of 2:1 or greater
- d. planting and irrigating graded slopes greater than five feet in vertical height
- e. allowing for shrinkage and subsidence factors during fill calculations
- f. conforming to CAL-OSHA and local safety requirements during trenching operations and
- g. conducting future geotechnical studies when appropriate, to control earth work, embankment design, foundation considerations, and tree retention where feasible.



LEGEND









-  TYPE 1 ALLUVIAL FAN SCRUB
-  TYPE 2 ALLUVIAL FAN SCRUB
-  GRASSLAND
-  1 HOLLY-LEAVED CHERRY
-  2 CANYON OAK
-  3 CALIFORNIA SYCAMORE
-  4 EUCALYPTUS
-  LEVEE

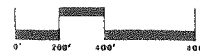
EXHIBIT 14

VEGETATION MAP

SAN BERNARDINO COUNTY, CALIFORNIA



ETIWANDA / SAN SEVAINE
PLANNING AREA



THE CARYN COMPANY
Land/Plan/Design Group

VIII. SEISMIC HAZARDS AND PUBLIC SAFETY

A. POTENTIAL SEISMIC AND SAFETY HAZARDS

The West Valley Foothills Community planning area is located in an historically active earthquake zone. Several fault systems in both the West Valley Foothills and in Southern California are considered active. These faults could affect the project site in the form of ground shaking, ground rupture and ground failure.

The closest fault zone to the project site is the Cucamonga Fault Zone, located north of the project site, as verified by CHJ Engineers in their geotechnical report dated October 8, 1986. Refer to Appendix for accompanying text and map. It is a 20 mile long segment within the Sierra Madre fault zone and is considered to be active, having moved within the last 10,000 years. The Cucamonga Fault has not experienced a significant earthquake in historic time, but is judged to be capable of a maximum credible earthquake of 7.0. It could generate strong ground motion at the site but because the soils are granular, the potential for liquefaction is considered low.

B. SAFETY FEATURES

The probability for ground acceleration at the site may be considered similar to Southern California as a whole. Horizontal accelerations induced by an earthquake may affect structures and/or earth embankments. Experience has shown that wood frame structures, designed in accordance with the Uniform Building Code, tend to resist earthquake effects. In addition, on-site grading will be limited to a maximum 1-1/2:1 ratio (with approval by a soil engineer and the County of San Bernardino), and will conform to County safety standards.

IX. NOISE

Noise impacts are commonly measured using the Community Noise Equivalent Level (CNEL) noise index. CNEL is a method of representing the average daily noise exposure at a given location. Prior to issuance of building permits, a noise study shall be submitted to determine any necessary mitigation measures using the CNEL standard.

X. FOOTNOTES

- ¹ San Bernardino County, West Valley Foothills Community Plan EIR, (1983), Pg. 71
- ² San Bernardino County, West Valley Foothills Community Plan EIR, (1983), Pg. 58 and Southern California Association of Governments 1982, Trend Line Populations Forecasts.
- ³ San Bernardino County, West Valley Foothills Community Plan, (November, 1983) Pg. A16
- ⁴ San Bernardino County, West Valley Foothills Community Plan, (1983), Pg. D2-11