

# **SAN MIGUEL RANCH GDP/SPA PLAN**

## **TABLE OF CONTENTS**

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- 1. GENERAL DEVELOPMENT PLAN**
- 2. SPA PLAN**
- 3. PC DISTRICT REGULATIONS**
- 4. DESIGN GUIDELINES**
- 5. PUBLIC FACILITIES FINANCING PLAN**
- 6. AFFORDABLE HOUSING PROGRAM**
- 7. AIR QUALITY IMPROVEMENT PLAN**
- 8. WATER CONSERVATION PLAN**

# GENERAL DEVELOPMENT PLANS RECORD OF AMENDMENTS

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## 1. Record of Amendments

1. On December 17, 1996 Resolution 18532 amended the General Plan of the City of Chula Vista for the San Miguel Ranch Property (GPA-96-01),(PCM-96-05).

# ***SAN MIGUEL RANCH***

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## ***AMENDED HORSESHOE BEND GENERAL DEVELOPMENT PLAN***

*Prepared for:*  
**Emerald Properties Corporation**

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*Adopted by:*  
**City of Chula Vista City Council**  
December 17, 1996  
**Resolution No. 18532**

# San Miguel Ranch

## Amended Horseshoe Bend General Development Plan

### *Table of Contents*

<b>I</b>	<b><i>Executive Summary</i></b> .....	<b>I-1</b>
	<b><i>A. Introduction</i></b> .....	<b>I-1</b>
	<b><i>B. Project Vision</i></b> .....	<b>I-1</b>
	<b><i>1. Residential Neighborhoods</i></b> .....	<b>I-2</b>
	<b><i>2. Open Space</i></b> .....	<b>I-2</b>
	<b><i>3. Parks and Recreation</i></b> .....	<b>I-2</b>
	<b><i>4. Community Facilities</i></b> .....	<b>I-3</b>
	<b><i>5. Circulation</i></b> .....	<b>I-3</b>
	<b><i>C. Amended Horseshoe Bend General Development Plan/     General Plan Amendment</i></b> .....	<b>I-3</b>
<b>II</b>	<b><i>Introduction</i></b> .....	<b>II-1</b>
	<b><i>A. Authority and Scope</i></b> .....	<b>II-1</b>
	<b><i>B. Project Setting</i></b> .....	<b>II-1</b>
	<b><i>C. Project History</i></b> .....	<b>II-5</b>
	<b><i>D. Multiple Species Conservation Program/Subarea Plan</i></b> .....	<b>II-5</b>
	<b><i>E. State Route 125</i></b> .....	<b>II-6</b>
	<b><i>F. Relationship to General Plan</i></b> .....	<b>II-7</b>
<b>III</b>	<b><i>Project Plan</i></b> .....	<b>III-1</b>
	<b><i>A. Goals and Objectives</i></b> .....	<b>III-1</b>
	<b><i>1. Housing / Community Character / Land Use</i></b> .....	<b>III-2</b>
	<b><i>2. Resource Conservation</i></b> .....	<b>III-3</b>
	<b><i>3. Community / Public Facilities</i></b> .....	<b>III-4</b>
	<b><i>4. Circulation / Public Safety and Welfare</i></b> .....	<b>III-5</b>
	<b><i>B. Site Analysis</i></b> .....	<b>III-6</b>
	<b><i>1. Existing Conditions</i></b> .....	<b>III-7</b>
	<b><i>2. Opportunities and Constraints</i></b> .....	<b>III-8</b>
	<b><i>C. Land Use Concept</i></b> .....	<b>III-19</b>
	<b><i>1. Residential</i></b> .....	<b>III-20</b>
	<b><i>2. Commercial</i></b> .....	<b>III-21</b>
	<b><i>3. School</i></b> .....	<b>III-21</b>
	<b><i>4. Recreation</i></b> .....	<b>III-21</b>
	<b><i>5. Community Services</i></b> .....	<b>III-22</b>
	<b><i>6. Natural Open Space</i></b> .....	<b>III-22</b>
	<b><i>D. Amended Horseshoe Bend General Development Plan</i></b> .....	<b>III-23</b>
	<b><i>1. North Parcel</i></b> .....	<b>III-23</b>
	<b><i>2. South Parcel</i></b> .....	<b>III-23</b>
	<b><i>E. Statistical Summary</i></b> .....	<b>III-26</b>
	<b><i>F. Grading Concept</i></b> .....	<b>III-29</b>

Table of Contents (continued)

17	<b>Project Components</b> .....	<b>IV-1</b>
	<b>A. Residential Component</b> .....	<b>IV-1</b>
	1. "Low" .....	<b>IV-1</b>
	2. "Low-Medium" .....	<b>IV-1</b>
	3. "Medium" .....	<b>IV-2</b>
	4. "Medium High" .....	<b>IV-2</b>
	<b>B. Commercial Component</b> .....	<b>IV-3</b>
	<b>C. School Component</b> .....	<b>IV-3</b>
	<b>D. Recreation and Trails Component</b> .....	<b>IV-3</b>
	1. Community Park .....	<b>IV-3</b>
	2. Trails .....	<b>IV-3</b>
	3. Open Space Corridors .....	<b>IV-3</b>
	<b>E. Community Services Component</b> .....	<b>IV-4</b>
	<b>F. Open Space Component</b> .....	<b>IV-7</b>
	<b>G. Circulation</b> .....	<b>IV-7</b>
<b>V</b>	<b>Development Guidelines</b> .....	<b>V-1</b>
	<b>A. Overall Project Guidelines</b> .....	<b>V-1</b>
	<b>B. Specific Land Use Guidelines</b> .....	<b>V-1</b>
	1. Residential Guidelines .....	<b>V-1</b>
	2. Commercial .....	<b>V-4</b>
	3. School .....	<b>V-4</b>
	4. Recreation and Trails .....	<b>V-4</b>
	5. Community Services .....	<b>V-5</b>
	6. Natural Open Space .....	<b>V-5</b>
	7. Circulation .....	<b>V-6</b>
	8. Public Facilities .....	<b>V-6</b>
	<b>C. Landscape Concept Guidelines</b> .....	<b>V-8</b>
	1. Overall Theme .....	<b>V-9</b>
	2. Design Guidelines .....	<b>V-9</b>
	<b>D. Grading and Landform Alteration Guidelines</b> .....	<b>V-13</b>

*Table of Contents (continued)*

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<b>VI</b>	<b>General Plan Conformance</b> .....	<b>VI-1</b>
	<b>A. Request for General Plan Amendment</b> .....	<b>VI-1</b>
	<b>B. General Plan Analysis</b> .....	<b>VI-2</b>
	<b>1. Land Use Element</b> .....	<b>VI-3</b>
	<b>2. Circulation Element</b> .....	<b>VI-7</b>
	<b>3. Public Facilities Element</b> .....	<b>VI-8</b>
	<b>4. Housing Element</b> .....	<b>VI-8</b>
	<b>5. Conservation / Open Space Element</b> .....	<b>VI-8</b>
	<b>6. Parks and Recreation Element</b> .....	<b>VI-9</b>
	<b>7. Safety Element</b> .....	<b>VI-9</b>
	<b>8. Noise Element</b> .....	<b>VI-9</b>
<b>VII</b>	<b>Implementation</b> .....	<b>VII-1</b>
	<b>A. Phasing</b> .....	<b>VII-1</b>
	<b>B. Community Facilities</b> .....	<b>VII-1</b>
	<b>1. Circulation</b> .....	<b>VII-1</b>
	<b>2. Water</b> .....	<b>VII-1</b>
	<b>3. Sewer</b> .....	<b>VII-1</b>
	<b>4. Drainage</b> .....	<b>VII-2</b>
	<b>5. Fire and Police</b> .....	<b>VII-2</b>
	<b>6. Schools</b> .....	<b>VII-2</b>
	<b>7. Open Space</b> .....	<b>VII-2</b>
	<b>C. Development Agreement</b> .....	<b>VII-2</b>
	<b>D. Subsequent Review</b> .....	<b>VII-2</b>
	<b>APPENDIX</b> .....	<b>A-1</b>
	<b>Resolutions and Conditions</b> .....	

# San Miguel Ranch

## Amended Horseshoe Bend General Development Plan

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### List of Figures

Page

#### Chapter I

1. Overall Project Amended Horseshoe Bend General Development Plan ..... I-5

#### Chapter II

2. Regional Map ..... II-3  
 3. Vicinity Map ..... II-4  
 4. Chula Vista General Plan ..... II-8  
 5. Proposed General Plan Amendment ..... II-9  
 6. Existing Approved General Development Plan ..... II-10

#### Chapter III

7. North Parcel Existing Topography ..... III-11  
 8. South Parcel Existing Topography ..... III-12  
 9. North Parcel Existing Slope Analysis ..... III-13  
 10. South Parcel Existing Slope Analysis w/ Development Bubble Overlay ..... III-14  
 11. North Parcel Existing Biological Resources (Enlargement) ..... III-15  
 12. South Parcel Existing Biological Resources w/ Development Bubble Overlay ..... III-16  
 13. Site Analysis Summary Map ..... III-17  
 14. Regional Context Map ..... III-18  
 15. South Parcel Amended Horseshoe Bend General Development Plan ..... III-25  
 16. South Parcel Grading Plan ..... III-30

#### Chapter IV

17. North Parcel Recreation Uses and Trails ..... IV-5  
 18. South Parcel Recreation Uses and Trails ..... IV-6  
 19. South Parcel Circulation Plan ..... IV-8

### List of Tables

1. Land Use Summary Table ..... III-27  
 2. Amended Horseshoe Bend GDP Residential Midpoint Analysis ..... III-28  
 3. Residential Midpoint Analysis Based on the Proposed General Plan Amendment .... VI-10  
 4. Amended Proctor Valley General Development Plan "Midpoint" Analysis ..... VI-10

# *I Executive Summary*

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## *A. Introduction*

San Miguel Ranch is comprised of 2,590 acres of property located adjacent to the northeastern border of the City of Chula Vista. San Miguel Ranch consists of two large parcels (North and South parcels), and is proposed as a new residential community to serve the residents of the City of Chula Vista and the region. Regionally, the site is situated between Sweetwater Reservoir and Jamul Mountains, north of the eastern Chula Vista planned communities of Eastlake, Salt Creek I and Salt Creek Ranch. The property is currently located in the unincorporated area of San Diego County, but within the adopted Sphere of Influence for the City of Chula Vista. Emerald Properties is the project applicant and owner of San Miguel Ranch.

Emerald Properties has prepared two separate Amended General Development Plans (GDPs) for San Miguel Ranch to accommodate two proposed freeway alignments for the southerly extension of State Route 125 (SR 125). One GDP is in response to, and incorporates, the Proctor Valley Alignment for SR 125, which runs along the western edge of the South Parcel of San Miguel Ranch. The other GDP is in response to, and incorporates, the Horseshoe Bend Alignment for SR 125, which bisects the South Parcel of San Miguel Ranch in a north/south direction. Each Amended GDP has been prepared with equal detail and information. This document is the Amended GDP for the Horseshoe Bend Alignment of SR 125.

## *B. Project Vision*

San Miguel Ranch will be a high-quality residential community built around logically and conveniently located community facilities, including an elementary school, a community service facility, a community park and a retail commercial center. In addition, over 2,065 acres, or 80 percent, of San Miguel Ranch will be an "ecological reserve" for the preservation of sensitive lands and natural resources. This commitment is unprecedented anywhere in the County of San Diego. San Miguel Ranch is also designed to be responsive to, and compatible with, the current and future transportation needs in both the City and the South Bay area of San Diego County. San Miguel Ranch will meet these transportation needs by providing for the extension of East H Street and Mt. Miguel Road, and by accommodating the proposed alignment for SR 125.

San Miguel Ranch is predominantly composed of sloping hillsides, valleys and vistas. The backdrop for the property is Mother Miguel Mountain. San Miguel Ranch presents many opportunities, such as: significant views, unique topographic character and large areas of undisturbed open space. There are very few sites available in the County which provide such opportunities. The basic vision for San Miguel Ranch could be summarized in the following statement:

**San Miguel Ranch will be a place that respects the natural features of the land, while providing a wide variety of neighborhoods and homes to meet the needs of the City of Chula Vista. The key features of the community will be neighborhoods with open spaces, views, recreational areas, trails and logical transportation systems, and an**



**ecological reserve, encompassing over 2,065 acres (80 percent of the total project), devoted to the preservation of sensitive lands and natural resources.**

It is important to provide a community with a diverse population mix. San Miguel Ranch incorporates a variety of housing types, smaller lots as well as larger lots, to create an energetic and socially diverse community that will meet the existing and future housing needs of the City of Chula Vista.

The existing adopted GDP essentially provided only one residential land use category, "Low Density", with the majority of the housing product consisting of 20,000 square foot lots. Because the Horseshoe Bend alignment for SR 125 is proposed to bisect San Miguel Ranch, it is no longer feasible or logical, from a land use planning perspective, to only provide for large lot development adjacent to the proposed freeway alignment. The Amended GDP envisions a wider range of housing types by offering additional and more appropriate residential land use categories. This range of residential land uses will provide a variety of housing types to match the current and future residential needs in Chula Vista. This variety in residential land uses is also more consistent with existing development surrounding San Miguel Ranch. Projects such as Salt Creek and Salt Creek I have three or more residential categories in the Low, Low Medium, Medium and Medium High range (see Figure 5). Consistency with the surrounding area allows San Miguel Ranch to continue to provide a balanced and diverse housing mix in the City's Eastern Territories.

The major components of San Miguel Ranch are summarized as follows:

### *Residential Neighborhoods*

A balanced and diverse range of neighborhoods and homes will be offered in San Miguel Ranch. Large lot homes, traditional single family homes, entry-level homes, apartments, and potentially townhomes and condominiums will be provided in the South Parcel. This wide variety of housing opportunities is intended to better serve the broader range of the housing needs in Chula Vista. This approach takes into consideration the numerous lifestyles, ages and income groups of Chula Vista and will provide a mix of residential land uses.

### *2. Open Space*

Over 2,065 acres, or 80 percent, of the San Miguel Ranch community will be devoted to the preservation of sensitive lands and natural resources. This acreage includes the entire North Parcel (1,852 acres) and approximately 213 acres located in the South Parcel. This open space commitment would result in the creation of an ecological reserve within the San Miguel Ranch community, and the implementation of an important segment of the City's Subarea Plan and the Multiple Species Conservation Plan (MSCP) Program.

### *3. Parks and Recreation*

San Miguel Ranch will devote over 34 acres of land to park and recreation uses. These uses will include a community park and trails linked to other open space areas. These uses will complement important components of the City's greenbelt system.

#### ***4. Community Facilities***

A variety of community services will be incorporated into the San Miguel Ranch community. Those facilities include:

- An elementary school site located in the south-central portion of the project which will be convenient to the majority of the residents of San Miguel Ranch;
- A community services site for possible place of worship or other community purpose functions; and
- A community retail center that will serve both San Miguel Ranch and neighboring communities.

#### ***5. Circulation***

The road network for San Miguel Ranch is another critical community component. San Miguel Ranch will implement several important elements of the City's long-term circulation needs, including:

- The extension of East H Street from the western boundary of the existing Salt Creek Ranch community to Mt. Miguel Road;
- The extension of Mt. Miguel Road to the north, an ultimate connection to State Route 125, and to Proctor Valley Road; and
- The provision for the right-of-way of SR 125.

An important component of the San Miguel Ranch Horseshoe Bend GDP is the redesign of the land use plan in the South Parcel to accommodate the alignment for SR 125.

All Circulation Elements within San Miguel Ranch (roads, bikeways and transit routes) have been assigned classifications consistent with, or in excess of, the City's General Plan requirements.

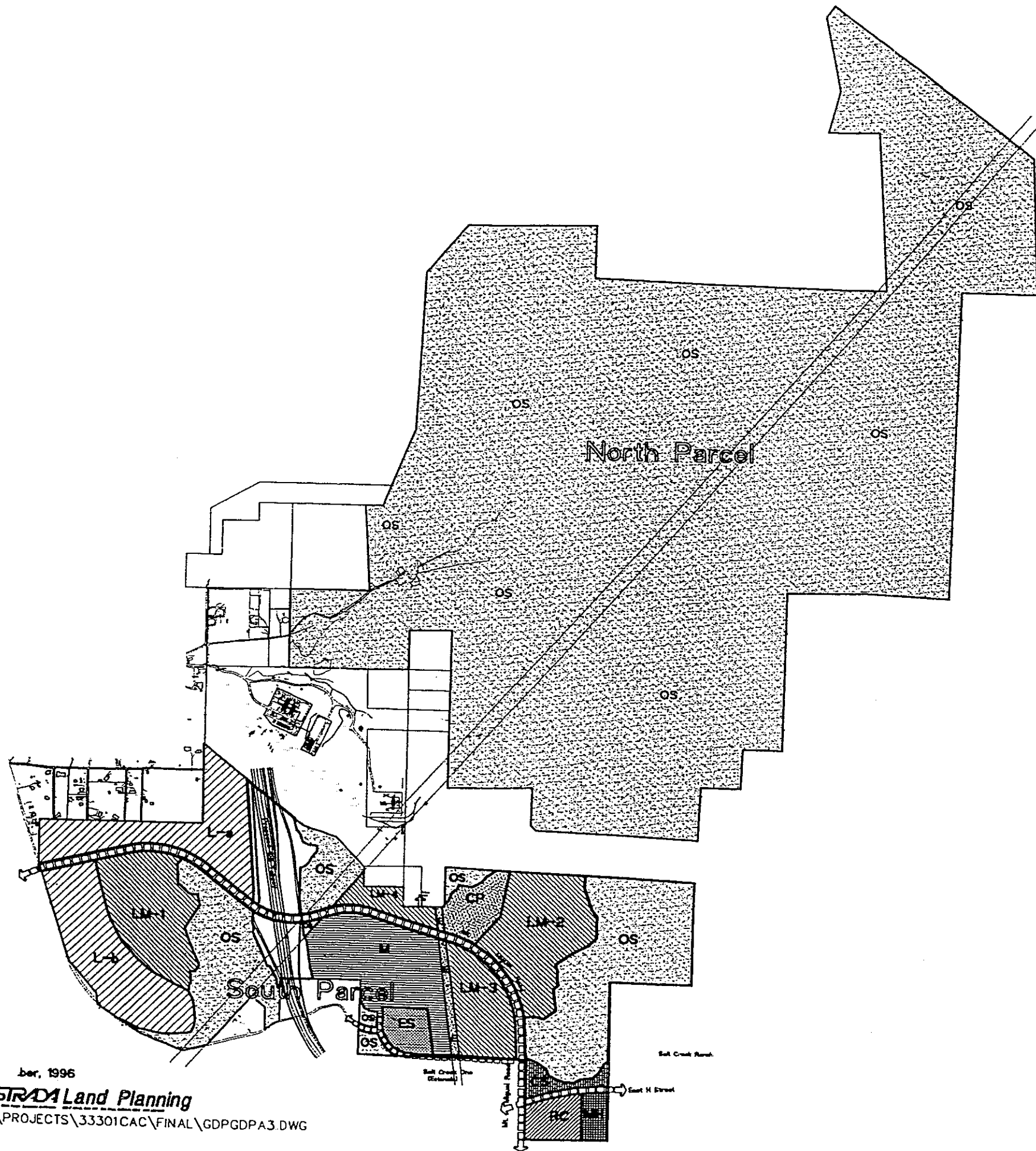
### ***C. Amended Horseshoe Bend General Development Plan /General Plan Amendment***

This document will require an amendment to the originally approved GDP as well as a General Plan Amendment for the South Parcel of San Miguel Ranch. The approved GDP basically provided for only one residential land use category (Low) allowing for a limited housing type. In addition, the approved GDP did not take into consideration the possible Horseshoe Bend Alignment for SR 125, and the impact that this freeway alignment would have on the surrounding land uses.

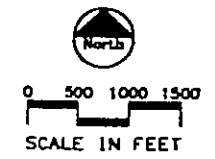
The San Miguel Ranch Amended Horseshoe Bend GDP ( Figure 1) and General Plan Amendment are consistent with the primary goals of the City's General Plan:

- The San Miguel Ranch housing component (1,394 units) will be consistent with the "midpoint" density range proposed by the City's General Plan Amendment (Figure 5 and Table 3).
  - San Miguel Ranch will be compatible with the uses in surrounding communities and sensitive to the unique site characteristics.
  - San Miguel Ranch will respect adjacent land uses in the surrounding communities by placing appropriate densities near each other. For example, homes on large lots will be located adjacent to the Bonita community with more traditional single-family homes, entry-level homes, townhomes, condominiums and apartments located adjacent to the existing communities of Salt Creek I, Salt Creek Ranch and Eastlake.
  - The San Miguel Ranch housing component will provide a wider variety of housing opportunities for all lifestyles, ages and income levels.
  - The grading concept for San Miguel Ranch will reduce overall grading from the previous plan.
  - San Miguel Ranch will enhance the City's open space system well in excess of that shown in the City's General Plan.
  - San Miguel Ranch will complete major elements of the City's General Plan by providing the extension of East H Street and Mt. Miguel Road. Design standards for those roadways will exceed those outlined in the General Plan. The design will also allow for the implementation of bike and pedestrian paths and transit uses. These community facilities will meet or exceed the requirements in the General Plan.
  - Public facilities will be provided (water, sewer, fire and safety) and completed in accordance with the General Plan and a Public Facilities Financing Plan.
  - The site planning criteria and design guidelines contained in the Amended Horseshoe Bend GDP are provided to maintain high standards for future development within the City of Chula Vista.

The Amended Horseshoe Bend GDP establishes the overall development character for San Miguel Ranch, and provides the initial regulatory framework for future implementation of the community. The Amended Horseshoe Bend GDP, along with the San Miguel Ranch SPA Plan, will be the primary planning and zoning documents to guide future development of the property. The Amended Horseshoe Bend GDP is accompanied by the Subsequent Environmental Impact Report (SEIR) (SCH No. 96051038) which describes the existing on-site resources and environmental considerations associated with development of San Miguel Ranch.



Legend				
Symbol	Land Use	Gross Acres	Units	
<b>Residential Uses</b>				
L	Low (5 - 3 DU/Acre)	132.3	184	
LM	Low-Medium (3 - 6 DU/Acre)	165.8	624	
M	Medium (6 - 11 DU/Acre)	67.5	473	
MH	Medium High (11 - 18 DU/Acre)	7.8	113	
Residential Total		373.4	1394	
<b>Commercial Uses</b>				
RC	Retail Commercial	13.9		
<b>Institutional Uses</b>				
CS	Community Service Site	7.5		
ES	Elementary School Site	12.7		
Institutional Total		19.9		
<b>Open Space Uses</b>				
CP	Community Park	19.0		
E	Utility Easements/Parkways	15.4		
OS	Natural Open Space	2065.2		
Open Space Total		2099.6		
<b>Circulation Element Uses</b>				
125 ROW	SR-125 ROW	51.9		
	Major Roads	31.5		
Circulation Element Total		83.4		
Total Acreage		2590.2		
Total Units			1394	



Overall Project  
 Amended Horseshoe Bend  
 General Development Plan  
**San Miguel Ranch**  
 Emerald Properties Corporation  
 Figure 1

## ***II Introduction***

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### ***A. Authority and Scope***

The San Miguel Ranch Amended Horseshoe Bend GDP represents the first tier in the development entitlement process, and in the implementation of the land use policies set forth in the General Plan of the City of Chula Vista. This Amended Horseshoe Bend GDP will be followed by a Sectional Planning Area (SPA) Plan and Tentative Subdivision Map(s), each increasing in specificity. The character and design of San Miguel Ranch will be determined by guidelines and development standards in accordance with the Planned Community section of the Chula Vista Zoning Ordinance, and as defined in this Amended Horseshoe Bend GDP and subsequent SPA Plan.

This document will serve as a supplement to existing City regulations. The regulations established by this Amended Horseshoe Bend GDP will supersede any City regulations. When a topic is not addressed by this Amended Horseshoe Bend GDP, the City's regulations will apply.

Approval of the Amended Horseshoe Bend GDP will initiate several steps in the development process. It will establish the zoning for San Miguel Ranch, and it will define how much and what type of development will be permitted. The Amended Horseshoe Bend GDP will also determine the standards for the City to use regarding open space and major park and recreation improvements. The Subsequent EIR, prepared in conjunction with this Amended Horseshoe Bend GDP, fulfills the environmental review requirements for the proposed development.

The San Miguel Ranch Amended Horseshoe Bend GDP is established in accordance with Section 19.48 of the Chula Vista Zoning Ordinance.

### ***B. Project Setting***

San Miguel Ranch (Figures 2 and 3) consists of 2,590 acres of currently undeveloped land located adjacent to the northeastern border of the City of Chula Vista. The property is currently located in the unincorporated area of San Diego County, but within the adopted Sphere of Influence of the City of Chula Vista (Figures 4 and 5). The property is bounded by Proctor Valley Road on the west and south, San Miguel Mountain on the east and Sweetwater Reservoir on the north.

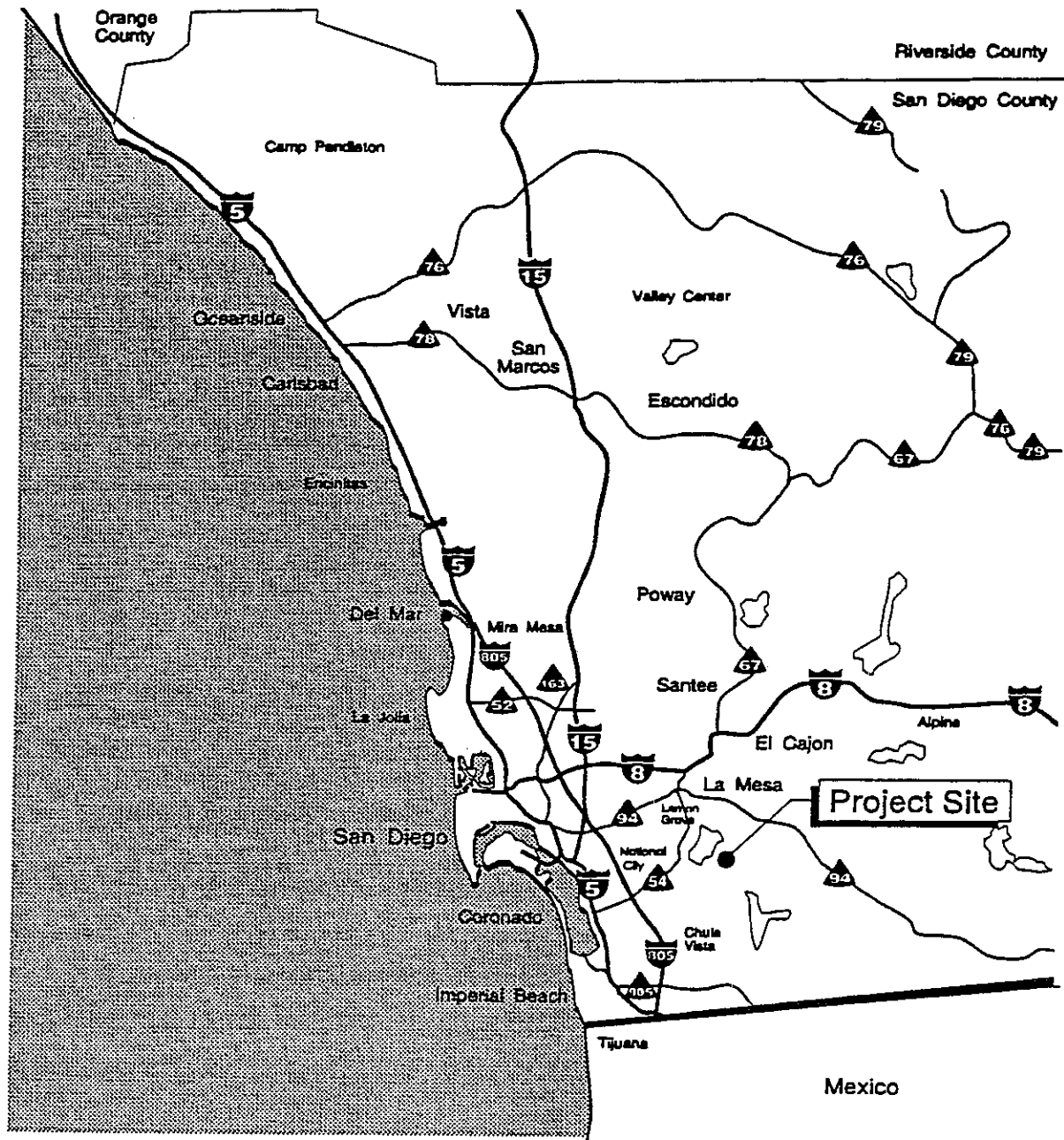
The SDG&E Miguel Substation separates the North and South parcels of San Miguel Ranch. Existing SDG&E facilities include the San Miguel substation, associated transmission lines on steel lattice towers and transmission lines on wood poles. A utility power line corridor runs between the North and South parcels and is developed with a transmission line running from the Substation east to Arizona. Two SDG&E utility easements cross the project site. A 250-foot wide easement runs northeast-southwest and is developed with transmission lines. A second 120-foot wide easement runs south through the southern portion of the site and is developed with transmission lines. Future development plans for the SDG&E property include expansion of the Substation and transmission line facilities to accommodate service area growth and system-wide operational needs, as required, and the installation of a lineman training facility.

The land immediately north of the North Parcel is open space located in an unincorporated portion of the County, and includes the Sweetwater River and the Sweetwater Reservoir. Several developments are located north of the Sweetwater River adjacent to the North Parcel. These include the La Presa area of Spring Valley and the Pointe development which are under the jurisdiction of the County. The area north of Sweetwater Reservoir (northwest of the project site) is under the jurisdiction of the County of San Diego and is developed with residential and commercial land uses along the Jamacha Boulevard corridor. The area to the northeast along the Sweetwater River is designated as a National Wildlife Refuge by the United States Fish and Wildlife Service (USFWS).

Land to the south of the project area is within the City of Chula Vista. Several residential development projects are approved and proposed for this area. Salt Creek I is a residential development with a total of 550 detached and attached residential units. Salt Creek I extends east of H Street to its intersection with San Miguel Ranch Road. Southeast of the project area is Salt Creek Ranch, a planned residential community which has received GDP, SPA Plan and Tentative Map approvals. The approved Tentative Map proposes 2,662 residential dwelling units, a 25-acre community park, a neighborhood park, a fire station site and two elementary school sites.

Land uses east of the project area are within the County of San Diego. All land east of the project area between the Sweetwater River and Proctor Valley Road is open space with the exception of two parcels of land owned by the Otay Water District which contain water treatment ponds.

Land to the west of the project site lies within the County of San Diego. Land uses along Proctor Valley Road include residential and the vacant Bonita Meadows property. Further to the northwest are areas of open space surrounding the Sweetwater Reservoir, and a County regional park (Summit Park) which contains passive uses, including camping facilities.



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Figure 2: San Miguel Ranch - Regional Map

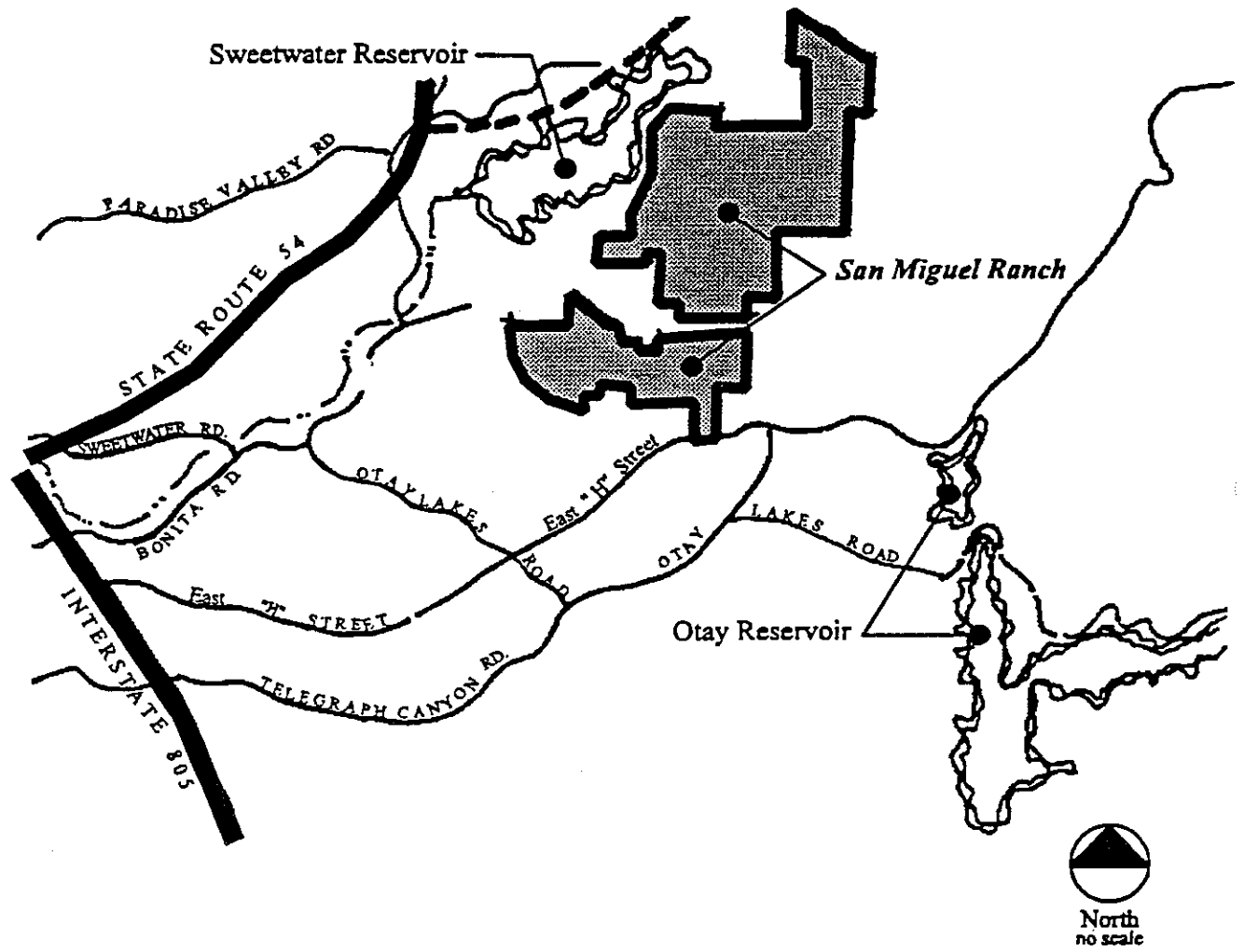


Figure 3: San Miguel Ranch - Vicinity Map



### ***C. Project History***

On March 23, 1993, the Chula Vista City Council approved the original San Miguel Ranch GDP and certified Final EIR 90-02 and a related Supplement. The previously adopted GDP (Figure 6) approved development of up to 1,619 single-family units (357 one-acre lots on the North Parcel and 1,262 lots on the South Parcel). In addition to the residential development, the approved GDP allowed for commercial uses, a community park, an elementary school, a conference/resort center, a community purpose facility and permanent open space.

Emerald Properties took title to the San Miguel Ranch property in July 1994. Since that time, Emerald Properties has been working with City staff to redesign the previously approved GDP. The redesign of San Miguel Ranch is intended to address a number of concerns that were presented during the original planning process. In addition, the proposed redesign is intended to be responsive to, and compatible with, two important regional projects in San Diego County. The first project is the proposed construction of the southerly extension of SR 125 by Caltrans (the SR 125 project). San Miguel Ranch is situated in the Caltrans study area for the SR 125 project. The second project is the San Diego-area MSCP which is intended to serve as a subregional plan under the California State Natural Communities Conservation Planning (NCCP) Act (the MSCP/NCCP Program). In connection with the MSCP/NCCP Program, the City of Chula Vista has prepared a draft Subarea Plan. San Miguel Ranch is included within the Chula Vista Subarea of the MSCP/NCCP Program. The MSCP/NCCP Program and the SR 125 project are discussed in more detail below.

### ***D. Multiple Species Conservation Program/Subarea Plan***

The City of San Diego, the County of San Diego, and ten other local jurisdictions, including the City of Chula Vista, have prepared the MSCP/NCCP Program for an approximately 900 square mile area in southwestern San Diego. To implement the MSCP/NCCP Program, the City of Chula Vista prepared a draft Subarea Plan which was developed by the City's Planning Department in cooperation with the USFWS, the California Department of Fish and Game (CDFG), property owners and other interested persons. The City's Subarea Plan is intended to implement conservation planning within the City's General Plan boundary and Sphere of Influence through the establishment of specified preserve areas.

The primary goals of the City's Subarea Plan are to: (1) reduce or eliminate redundant local, state and federal review of individual projects by obtaining state and federal endangered species act take authorization for covered species; and (2) conserve habitat for covered species by creating a preserve system using a variety of techniques, including land use regulations, onsite and offsite mitigation and acquisition (local, state, and federal funding sources).

Both the MSCP/NCCP Program and the City's Subarea Plan seek authorization from the USFWS and the CDFG for the "take" of certain covered endangered, threatened, candidate and sensitive species located within the MSCP area. The USFWS and the CDFG must approve the MSCP/NCCP Program and the City's Subarea Plan as a condition to granting any requested take authorizations.

The North Parcel of San Miguel Ranch is located within a "core" resource area of the MSCP. According to the USFWS, the CDFG and the City, this core resource area supports a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere. This core area is also part of a larger contiguous block of native and agricultural lands continuing from the Sweetwater Reservoir south to the international border, and eastward along the Sweetwater River. This region supports one of the larger continual blocks of native vegetation, especially coastal sage scrub, remaining in San Diego County, and includes a high diversity and density of sensitive plant and animal species. In addition, this region likely supports the largest contiguous gnatcatcher populations remaining in the County.

Because the North Parcel of San Miguel is considered to be a regionally significant "core" resource area, both the MSCP/NCCP Program and the City's Subarea Plan contemplate that the North Parcel, and an additional 213.2 acre parcel located within the South Parcel, would be acquired and protected as part of the City's preserve area. Emerald Properties is willing to conserve the entire North Parcel, and the additional 213.2 acres within the South Parcel, as part of the City's preserve area. This property will be referred to as the "San Miguel Ranch Ecological Reserve." In addition to dedication of the South Parcel, the San Miguel Ranch Ecological Reserve would consist of the following components:

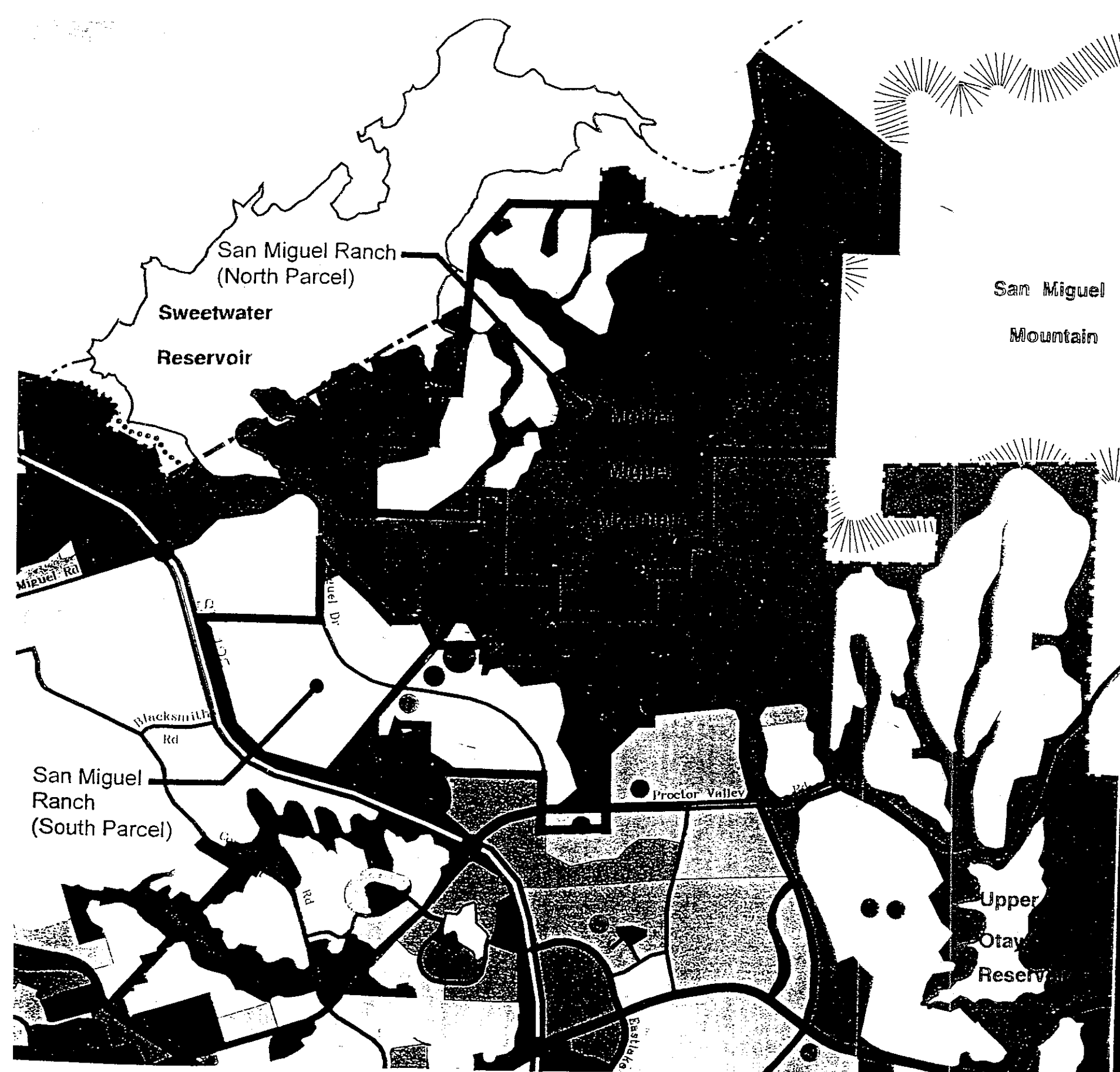
1. An approximately 500 acre parcel located within the western portion of the North Parcel to be purchased by federal and/or state resource agencies in accordance with the terms and conditions of a Conservation Agreement;
2. An approximately 166 acre parcel located within the North Parcel, which is intended to be dedicated in accordance with a Conservation Agreement; and
3. The remainder of the North Parcel, totaling approximately 1,186 acres, as conservation bank lands, which is intended to be dedicated in accordance with a Conservation Bank Agreement.

As a condition to establishing the San Miguel Ecological Reserve, Emerald Properties has requested certain assurances, acknowledgments and agreements from the City and the federal and state agencies relating to the proposed development of San Miguel Ranch. The assurances are discussed in the City's draft Subarea Plan (August 1996 version). These assurances include a Conservation Agreement to be entered into between the City, the USFWS, the CDFG and Emerald Properties.

### *E. State Route 125 (Caltrans)*

SR 125 is proposed as an eight-lane highway from Otay Mesa Road (Route 905) to Spring Valley (Route 54), a distance of approximately 11 miles. Ten potential routing alternatives for SR 125 are under consideration. SR 125 would extend through the City of Chula Vista.

As part of the alignment selection process for SR 125, Caltrans formed a committee of property owners and interested parties to assist in defining alternative routes through the study area. The committee, referred to as the Citizen's Advisory Committee (CAC), proposed several route



# LAND USE

RESIDENTIAL	du/ac
Low	0-3
Low-Medium	3-6
Low-Medium Village	3-6
Medium	6-11
Medium-High	11-18
High	18-27

## COMMERCIAL

- Retail
- Thoroughfare
- Visitor
- Professional & Administrative

## INDUSTRIAL

- Research & Limited Manufacturing
- General Industrial

## PUBLIC & OPEN SPACE

- Public & Quasi Public
- Open Space
- Parks & Recreation
- Water

## SPECIAL PLAN AREAS

- University Study Area
- Resort
- Special Conference Center
- Village Core
- Eastern Urban Center
- Special Study Area

Note: Special Study Areas are subject to additional, future planning and studies to identify plan amendments necessary to best accomplish the goals and objectives of the General Plan.

## CIRCULATION SYSTEM

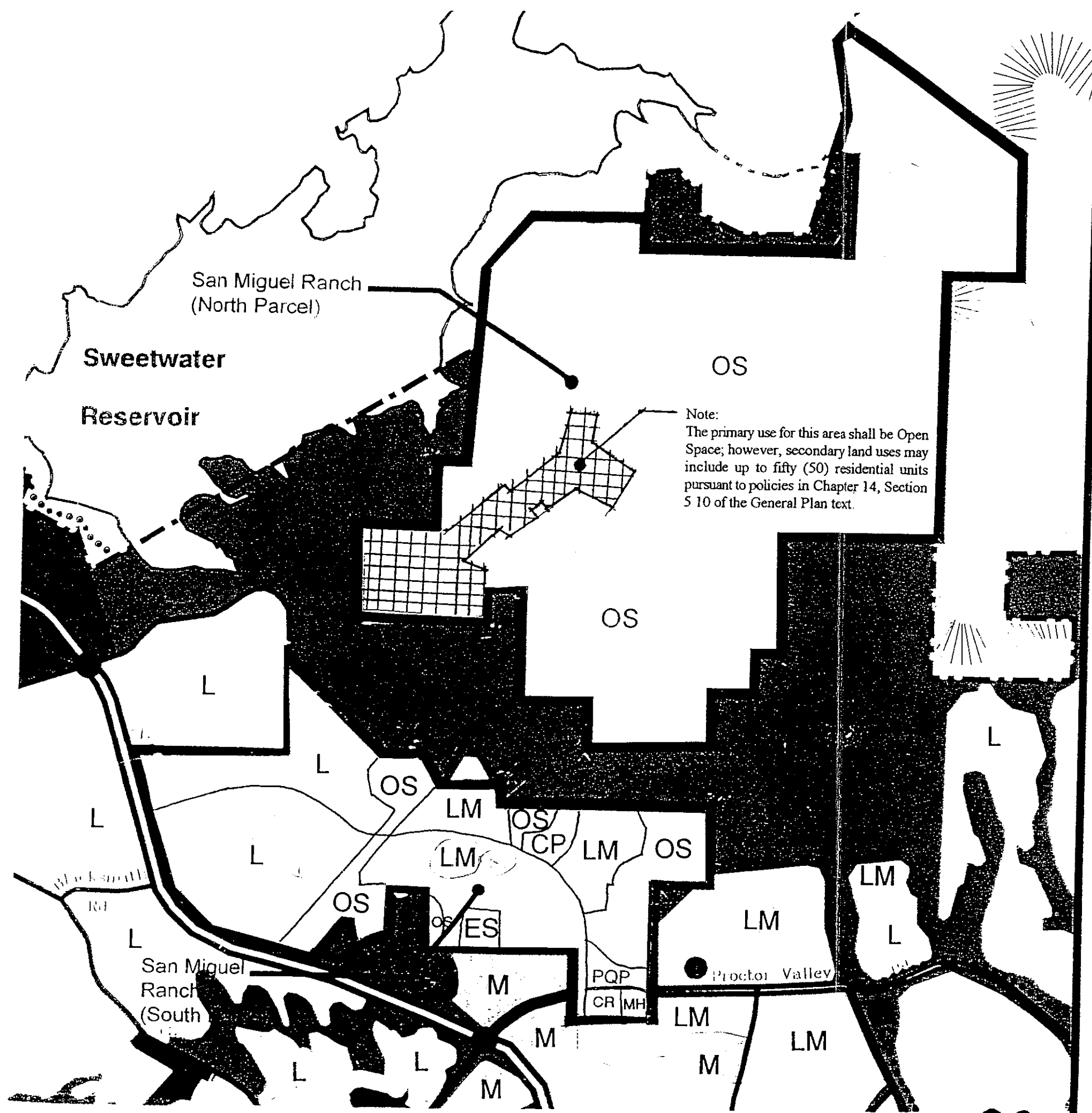
- Freeway
- Prime Arterial & Major Street (6 lanes)
- Major Street (4 lanes)
- Collector Street (2&4 lanes)

## PUBLIC FACILITIES

- HS High School
- JHS Junior High School
- ES Elementary School
- CC Civic Center
- L Library
- FS Fire Station
- TS Transit Station/Stop
- Future
- Future - Community Park
- Future Neighborhood Park (All sites not included)
- Greenbelt Trail System
- General Plan Area
- River or Stream

# CHULA VISTA GENERAL PLAN

Figure 4



# LAND USE

RESIDENTIAL	du/ac
Low	0-3
Low-Medium	3-6
Low-Medium Village (LMV)	3-6
Medium	6-11
Medium-High	11-18
High	18-27

### COMMERCIAL

- Retail
- Thoroughfare
- Visitor
- Professional & Administrative

### INDUSTRIAL

- Research & Limited Manufacturing
- General Industrial

### PUBLIC & OPEN SPACE

- Public & Quasi Public
- Open Space
- Parks & Recreation
- Water

### SPECIAL PLAN AREAS

- University Study Area
- Resort
- Special Conference Center
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Note: Special Study Areas are subject to additional, future planning and studies to identify plan amendments necessary to best accomplish the goals and objectives of the General Plan

### CIRCULATION SYSTEM

- Freeway
- Prime Arterial & Major Street (6 lanes)
- Major Street (4 lanes)
- Collector Street (2&4 lanes)

### PUBLIC FACILITIES

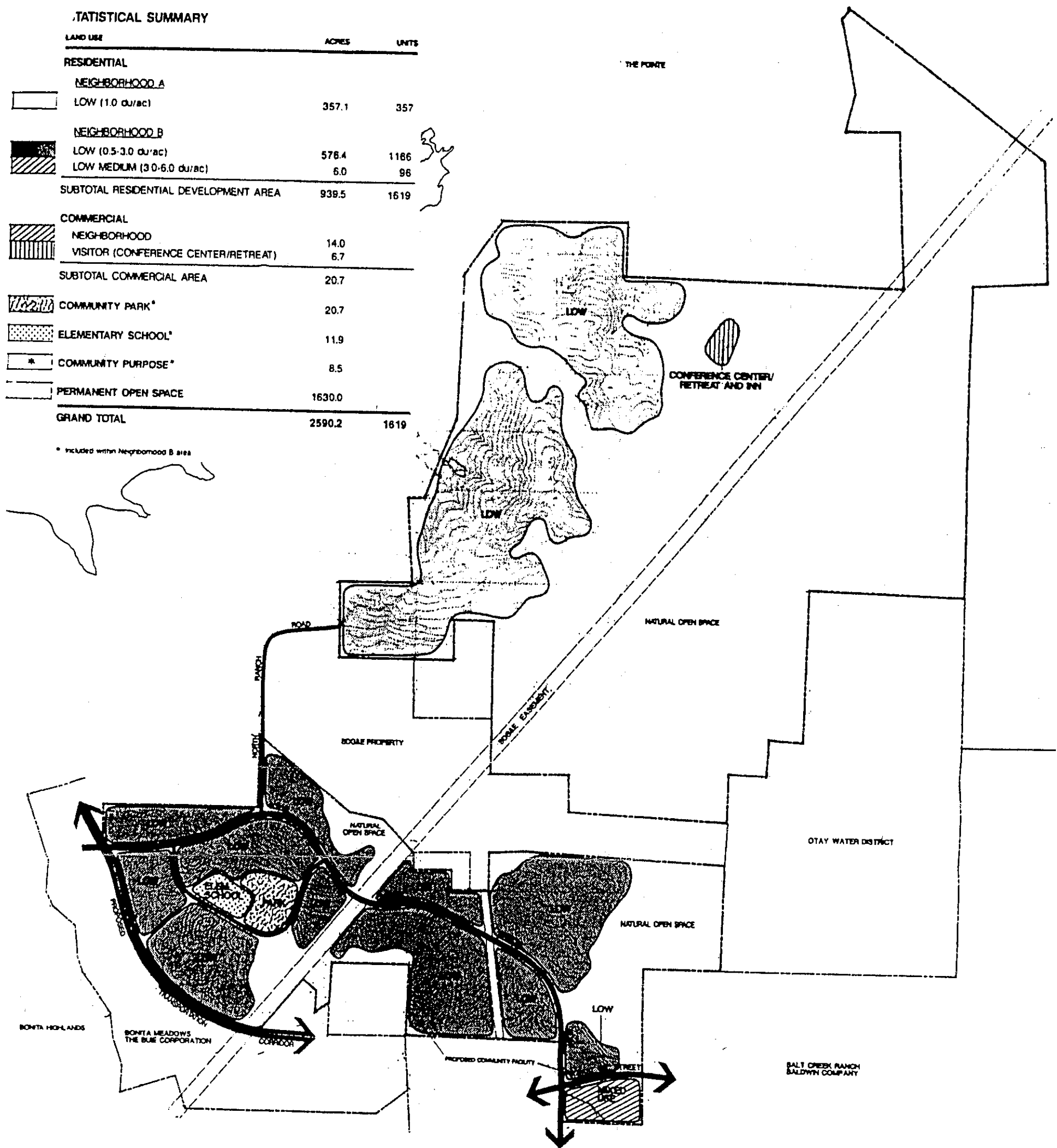
- HS High School
- JHS Junior High School
- ES Elementary School
- CC Civic Center
- L Library
- FS Fire Station
- TS Transit Station/Stop
- Future
- Future - Community Park
- Future Neighborhood Park (All sites not included)
- Greenbelt Trail System
- General Plan Area
- River or Stream

PROPOSED GENERAL PLAN AMENDMENT  
Figure 5

STATISTICAL SUMMARY

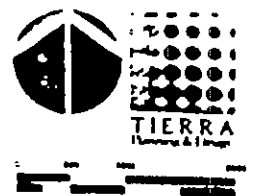
LAND USE	ACRES	UNITS
<b>RESIDENTIAL</b>		
<b>NEIGHBORHOOD A</b>		
LOW (1.0 du/ac)	357.1	357
<b>NEIGHBORHOOD B</b>		
LOW (0.5-3.0 du/ac)	578.4	1186
LOW MEDIUM (3.0-6.0 du/ac)	6.0	96
<b>SUBTOTAL RESIDENTIAL DEVELOPMENT AREA</b>		
	939.5	1619
<b>COMMERCIAL</b>		
<b>NEIGHBORHOOD</b>		
VISITOR (CONFERENCE CENTER/RETREAT)	14.0	
	6.7	
<b>SUBTOTAL COMMERCIAL AREA</b>		
	20.7	
COMMUNITY PARK*	20.7	
ELEMENTARY SCHOOL*	11.9	
COMMUNITY PURPOSE*	8.5	
PERMANENT OPEN SPACE	1630.0	
<b>GRAND TOTAL</b>		
	2590.2	1619

\* included within Neighborhood B area



**GENERAL DEVELOPMENT PLAN  
LAND USE PLAN**

**SAN MIGUEL RANCH  
SAN MIGUEL PARTNERS**



Existing Approved  
General Development Plan  
**San Miguel Ranch**  
Emerald Properties Corporation

Figure 6

April 25, 1996  
**ESRMA** Land Planning

### ***III Project Plan***

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This section addresses the following important planning issues for the San Miguel Ranch project:

- *Goals and Objectives*
- *Site Analysis*
- *Land Use Concept*
- *Amended Horseshoe Bend General Development Plan*
- *Statistical Summary*
- *Grading Concept*

#### ***A. Goals and Objectives***

The two GDPs for San Miguel Ranch are based upon a statement of goals and objectives prepared by both the project applicant and City staff. The goals and objectives were accepted by the Chula Vista City Council on February 13, 1996.

The approved goals and objectives address four broad areas:

- **Housing/Community Character/Land Use.** These goals and objectives address the character of the proposed development, including housing types, community design, preservation of natural features and compatibility with adjoining land uses.
- **Resource Conservation.** These goals and objectives call for a development plan that preserves or otherwise conserves sensitive habitat and other natural resources, and minimizes impacts to adjoining watersheds.
- **Community/Public Facilities.** These goals and objectives address the timely provision of schools, parks and other important public facilities and services in an efficient and cost-effective manner.
- **Circulation, Public Safety and Welfare.** These goals and objectives respond to various regional and local traffic circulation needs, including the proposed alignment of State Route 125, as well as police and fire protection.

The goals and objectives for San Miguel Ranch are described in further detail below.

**1. Housing / Community Character / Land Use**

**a. Goal**

Provide a balanced and diverse range of residential housing opportunities within San Miguel Ranch, and, at the same time, take advantage of the unique topography and visual character of the site.

**b. Objectives**

1. Evaluate at least two project alternatives in the course of review of this project.
2. Provide an appropriate number of estate-sized lots within the project, in a manner consistent with such factors as topography, views/elevations, exclusivity, surrounding land uses, short-term and long-term marketability, and relevant General Plan goals and policies.
3. Develop land use patterns on San Miguel Ranch which provide appropriate residential density transitions.
4. Promote a balanced and diverse blend of residential housing types, styles and densities which are compatible with other land uses in the surrounding areas.
5. Utilize Mother Miguel and San Miguel Mountains as unique visual backdrops.
6. Consider retaining Horseshoe Bend in its natural state as a project focal point and an amenity.
7. Incorporate an affordable housing component based upon the City's Housing Element and provide appropriate locations for affordable housing with reasonable access to activity centers such as parks, schools, public transit and shopping facilities.
8. Design the project, to the extent feasible and applicable, with the objectives and policies of the Land Use Distribution Element of the SANDAG Regional Growth Management Strategy.
9. Consider the surrounding properties in the planning effort for the project.
10. Provide lot sizes and housing types on San Miguel Ranch near and adjacent to the neighboring communities to achieve an overall reduction of land use friction as required by Section 6.2 of the Land Use Element of the General Plan.

11. Minimize grading quantities, large exposed cut or fill area and manufactured slope heights utilizing grading techniques which provide slopes with more natural-appearing configurations.
12. Revegetate manufactured slopes and graded areas with plant species which will create a native appearance.
13. Utilize on-site features such as rock outcroppings as site amenities.
14. Minimize disruption of ridgelines.
15. Create a series of small neighborhoods within larger neighborhoods.
16. Create focal points at project entries.
17. Design and integrate parks and open space areas into the community fabric to maximize their benefits and enhance community cohesiveness.
18. Proceed with plans for developing the property which reflect the final SR-125 alignment to be chosen by Caltrans.

## **2. Resource Conservation**

### **a. Goal**

Contribute significantly to local, state and federal conservation efforts by preserving, where possible, large areas that possess important biological value, significant landforms as defined in the Chula Vista General Plan, and other unique resources. Provide for adequate conservation of water and energy supplies.

### **b. Objectives**

1. Preserve Mother Miguel Mountain which is designated as a significant landform under the City's General Plan.
2. Incorporate San Miguel Ranch into the City's greenbelt system.
3. Assist in the planning and development of on-site trail systems which provide both local and regional connections in each direction.
4. Insure the long-term maintenance of trails and open space.
5. Develop a planned residential community in a manner which will significantly contribute to ongoing regional multi-species conservation planning efforts, such as the Multiple Species Conservation Program.



6. Encourage design features which promote energy and other resource conservation efforts.
7. Minimize disruption of the valuable San Miguel and Mother Miguel Mountain watersheds.
8. Develop a plan for fire resistive landscaping and brush management for the transition areas between structures and native vegetation, particularly in canyon and open space areas.
9. Prevent wastewater and urban runoff (as opposed to natural watershed) from entering into the Sweetwater Reservoir.
10. Identify, preserve and conserve significant biological and archaeological resources.
11. Provide Otay Tarplant preserves on both the north and south parcels.
12. Conserve natural open spaces that are large enough to maintain their ecological balance.

### ***3. Community / Public Facilities***

#### ***a. Goal***

Insure efficient and timely provision of public services and community facilities to San Miguel Ranch consistent with City policies.

#### ***b. Objectives***

1. Provide an elementary school site within the project.
2. Study the feasibility of co-locating a community park with recreational amenities adjacent to the elementary school to facilitate joint use and encourage a neighborhood setting. Also consider the feasibility of providing a stand-alone community park.
3. Consider providing a neighborhood park to serve the needs of the residents.
4. Phase parks in a manner that will result in three (3) acres of parkland per every 1,000 residents.
5. Master plan the neighborhood and community parks in a fashion which is consistent with the Landscape Manual.
6. Consider linking the neighborhood and community parks with a system of recreational trails.
7. Participate in the Eastern Chula Vista Parks and Recreation Master Plan Study.

8. Consider the results of a needs analysis in determining park and recreational requirements.
9. Satisfy the City's requirements for providing community purpose facilities such as churches, child care facilities and private educational services and facilities within San Miguel Ranch.
10. Develop an appropriate component of the City's Greenbelt Master Plan and implement said Plan on that portion which is located on the San Miguel Ranch property.
11. Provide the necessary public utilities and services to the project area, including drainage, water, sewage, schools, police, fire protection, parks, open space and recreation.
12. Minimize drainage impacts on downstream areas and provide for their mitigation.
13. Satisfy the City's thresholds and standards for drainage, water, traffic, air quality, fiscal conditions, sewage, police, fire protection, emergency medical services, schools, parks, recreation, open space and libraries as they apply to San Miguel Ranch.
14. Prepare a Public Facilities Financing Plan (PFFP), if required, which addresses the phasing and financing of the public facilities identified above.
15. Create an implementation process, if required, which provides or assures public facilities concurrent with the residential development in accordance with City-approved PFFP schedules.
16. Identify and evaluate issues associated with the possible transfer of the property from and between service districts and/or the City.
17. Develop a project which has an overall positive fiscal impact on the City of Chula Vista.

### *Circulation / Public Safety and Welfare*

#### *a. Goals*

Provide a safe and efficient circulation system within the project area and the region.  
Provide services beneficial to San Miguel Ranch and the surrounding community.

### ***b. Objectives***

1. Consider regional and local traffic circulation needs with regard to the SR 125 transportation corridor and the surface street connection from East H Street to Mt. Miguel Road in the project planning process.
2. Create a project circulation system that adheres to community and regional standards.
3. Provide road widths and alignments which minimize conflicts between pedestrians and automobiles.
4. Provide road widths, grades and turnarounds that meet standards set forth in the currently adopted edition of the Uniform Fire Code and all City Amendments.
5. Provide street patterns that are easily traversed while not appearing to be overly engineered.
6. Design individual subdivision street systems to interconnect with adjacent developments.
7. Construct appropriate interim on- and off-site road facilities to provide access to the project for emergency vehicles during early phases of development.
8. Implement design guidelines and standards to protect against excessive noise from the future SR 125 transportation corridor.
9. Minimize impacts of project-related traffic on adjacent and nearby communities.
10. Analyze phasing of the project and related public facilities in a manner which will minimize impacts to adjacent and nearby communities.
11. Design parks in a manner which will provide visibility from adjacent streets to the park for police patrols.
12. Provide access points to open space areas to accommodate emergency operations.

### ***B. Site Analysis***

To evaluate factors affecting the future uses of San Miguel Ranch, a detailed site analysis was completed. This analysis led to identification of the site's unique opportunities and potential constraints. The analysis considered both natural characteristics (landform/topography, geology, biological and cultural resources, hydrology and aesthetics) and proposed man-made characteristics (land use relationships, alignment of SR 125, area circulation, infrastructure, demographics, noise and air quality). The end result is the creation of a site plan that establishes the property's developable areas, minimizes impacts to environmentally sensitive habitat and other natural resources, and takes advantage of the property's unique blend of attributes.

## **1. Existing Conditions**

San Miguel Ranch consists of two land areas, the North Parcel and the South Parcel.

### **a. North Parcel**

The 1,852-acre North Parcel includes Mother Miguel Mountain, a significant landform, and foothills that slope to the north and west toward Sweetwater Reservoir. Considerable elevation change occurs on the North Parcel and results in significant view opportunities. The views extend west to the Pacific Ocean and downtown San Diego, and east to distant mountain ranges. Figure 7 illustrates the existing topography of the North Parcel with ten foot contours.

The majority of the North Parcel is steeper than 25% slope (see Figure 9). The southwest portion of the North Parcel contains terrain flatter than 25% slopes and is suitable for development.

The North Parcel vegetation is characterized by coastal sage scrub, mixed chaparral, non-native grasslands, and riparian scrub. The North Parcel contains numerous sensitive plant and animal species (see Figure 11), and is home to one of the largest concentrations of gnatcatchers in California. The USFWS and the CDFG consider preservation of the North Parcel a key element in the proposed MSCP/NSCP Program.

The North and South Parcels are separated by property owned by SDG&E, which contains the Miguel Substation and associated transmission lines. A view of the SDG&E Substation is visible from the North Parcel.

Existing vehicular access to the North Parcel is limited to the southwest corner. Numerous hiking and riding trails exist on the North Parcel. Much of the land has been utilized as grazing land during the past 80 to 100 years.

### **b. South Parcel**

The 738-acre South Parcel includes topography that can be characterized as varied with many small finger canyons and a flatter area in the eastern portion. The South Parcel includes Horseshoe Bend and significant rock outcroppings, particularly in the eastern portion. Figure 8 illustrates the existing topography of the South Parcel with both ten foot contours.

The 25% or greater slope areas occur in the South Parcel but are not as prevalent as on the North Parcel. Figure 10 depicts the location of the 25% or greater slope areas and overlays the proposed development proposal onto the existing slope areas.

Although not as significant as the North Parcel, there is still major elevation change in the South Parcel. Distant views are not as dramatic as the North Parcel; however, the South Parcel provides good views to the west and south. The visual backdrop of Mother Miguel and San Miguel Mountain is also attractive. The views to the SDG&E substation, to the north of the South Parcel, are somewhat screened by a small ridge.

The South Parcel also contains biological resources as shown in Figure 12. The majority of the sensitive species are located in the eastern section of the site, while most of the remainder of the site contains annual grasslands. Otay Tarplant is located onsite with the largest portion situated in the southwest near the SDG&E easement and the proposed Horseshoe Bend alignment for SR 125. Figure 12 overlays the proposed project onto the existing biological resources.

Two SDG&E easements cross the project site. A 250-foot wide easement is located on the west/central side and runs northeast - southwest. This easement contains four large steel towers that traverse the site. SDG&E plans to expand the number of towers within this easement. The eastern portion contains a smaller 120-foot wide easement. This easement runs north and south and contains two steel towers spaced 700 feet apart and several smaller wood poles. Existing vehicular access to the site is from Proctor Valley Road to the south.

The South Parcel is bisected by the Horseshoe Bend Alignment for SR 125 in a north / south direction. This alignment leaves approximately one-third of the project on the west side of SR 125, and two-thirds to the east of SR 125. The proposed SR 125 creates a major cut into the Horseshoe Bend landform, and is a maximum of 150 feet below the existing grade.

The land uses that surround the project influenced the proposed development of San Miguel Ranch. Figure 14 illustrates the regional context within which San Miguel Ranch will be located. Salt Creek Ranch is located on the south and eastern edges of the South Parcel of San Miguel Ranch. Salt Creek Ranch proposes residential development, a school/park site a fire station and other land uses. Directly south of San Miguel Ranch is Salt Creek I (Estancia), a single-family project, which is almost fully built-out. To the west of San Miguel Ranch's proposed commercial area is Salt Creek I (Chapala), a multi-family attached housing project. To the north of the western portion of San Miguel Ranch, there are the large estate-size lots located in Bonita.

A land use relationship map (Figure 5) has been prepared from the City of Chula Vista General Plan to evaluate land uses for proposed or approved projects in the vicinity of San Miguel Ranch. A summary of the site analysis is shown in Figure 13.

## *2. Opportunities and Constraints*

To develop a worthwhile land use concept, a good understanding of the properties' opportunities and constraints is necessary. The following is a summary of the opportunities and constraints for San Miguel Ranch.

*a. North Parcel Opportunities*

- Because the North Parcel rises to an elevation of over 1,000 feet, there are significant view opportunities.
- Because of the ruggedness of the North Parcel, access is somewhat limited, thereby presenting an opportunity for a modest estate-lot housing development. The views westward, and the picturesque backdrop of Mother Miguel Mountain to the east serve to enhance this opportunity.
- The North Parcel is viewed by many as possessing significant biological resources. Preservation of substantial portions, if not all, of this habitat is an opportunity to help maintain biological diversity.

*b. North Parcel Constraints*

- The majority of the North Parcel has steep slopes. The largest concentration of topography with slopes less than 25% is in the southwest portion of the North Parcel.
- Proximity to Sweetwater Reservoir, a locally important source of water, is a constraint due to the need to minimize off-site run-off.
- Access to the North Parcel is severely restricted due to the Horseshoe Bend alignment of SR 125.
- The fact that the North Parcel is so biologically sensitive is both an opportunity and a constraint. Any development on the North Parcel will have to address the habitat constraints.

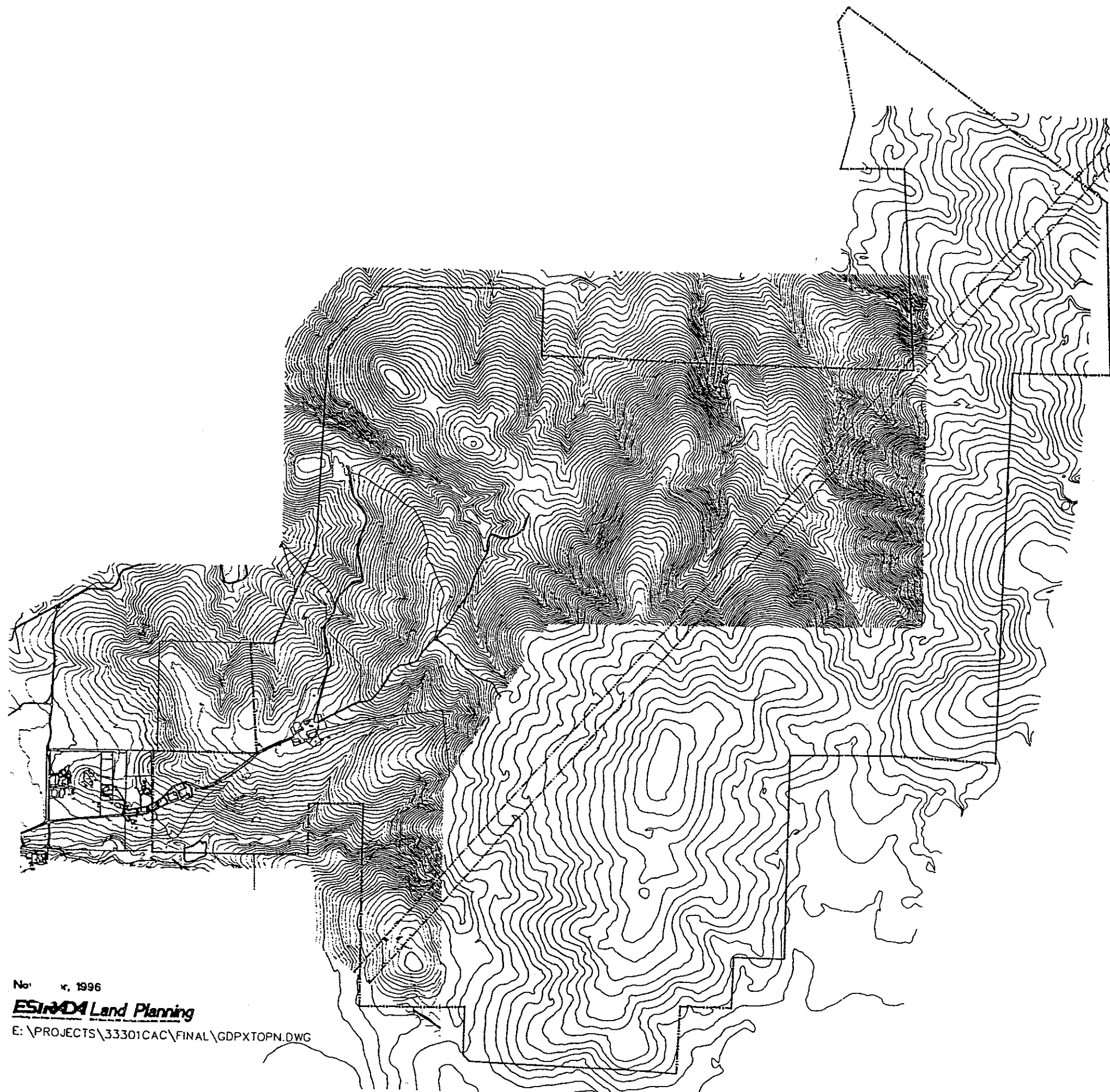
*c. South Parcel Opportunities*

- The land uses adjacent to the South Parcel, both existing and proposed, are primarily residential and fall within a variety of density ranges.
- The varied topography of the South Parcel allows for interesting development that can take advantage of the site's view corridors and unique landforms.
- The existing road system provides excellent access to the South Parcel.
- There are large areas with slopes less than 25% that are suitable for development.
- Most of the South Parcel consists of annual grasslands that are less biologically sensitive than coastal sage scrub and other flora.

- Open space trail links can occur at several locations, thereby expanding the City's greenbelt and recreational trail system.
- A variety of housing types could be provided that are compatible with:
  - being adjacent to the Horseshoe Bend alignment of SR 125,
  - SDG&E easements,
  - and with views to the offsite SDG&E substations.
- Off ramps are provided from SR 125 to Mt. Miguel Road allowing for access opportunities to the project.

*d. South Parcel Constraints*

- The proposed Horseshoe Bend alignment for SR 125 divides the South Parcel into two separate development areas.
- Views to the off-site power SDG&E station are visible from the eastern portion of the site.
- Siting appropriate land uses adjacent to the SDG&E utility corridors will be a constraint.
- Large areas with slope greater than 25% will limit the developable area.
- Restricting development in the biologically sensitive areas, primarily in the eastern portion of the site, as well as an Otay Tarplant area next to the 250-foot SDG&E easement limits the developable area.
- The marketability of estate housing is limited, if not impossible, for the South Parcel due to the location of the Horseshoe Bend alignment of SR 125, the SDG&E utility corridors, and the visual impacts of the SDG&E Substation.
- SR 125 will be 150 feet or more below the existing grade of the future development creating a negative visual impact to the surrounding development.
- Noise associated with SR 125 may impact the adjacent land uses requiring noise walls.



North Parcel  
Existing Topography

# San Miguel Ranch

Emerald Properties Corporation

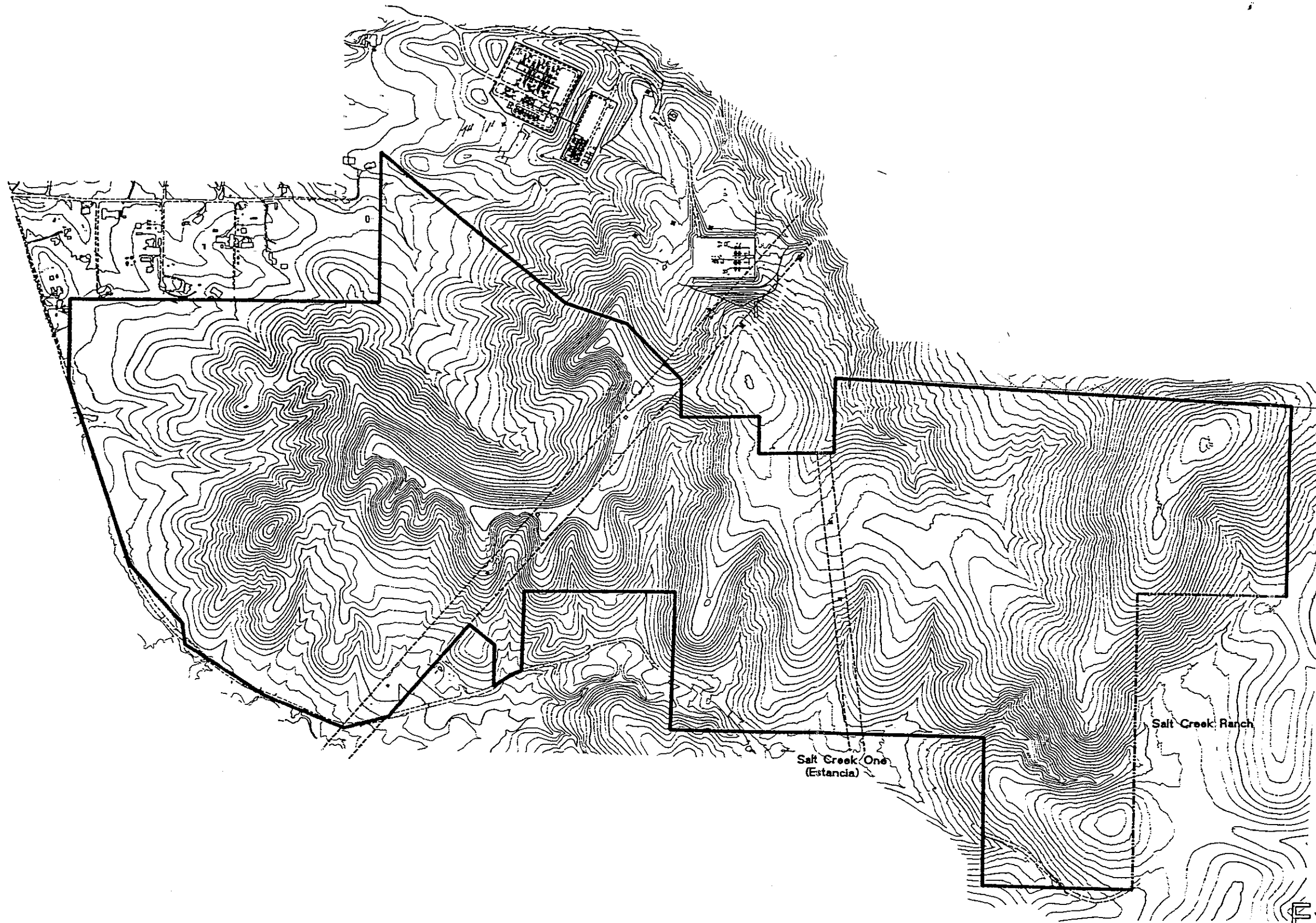
Figure 7

No. 1, 1996

**ESIMDA** Land Planning

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South Parcel  
Existing Topography

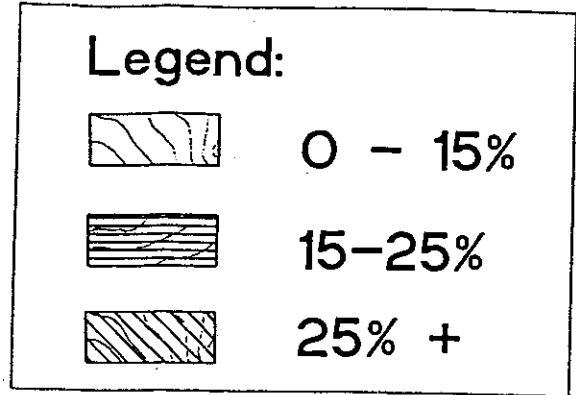
**San Miguel Ranch**  
Emerald Properties Corporation

Figure 8

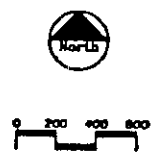
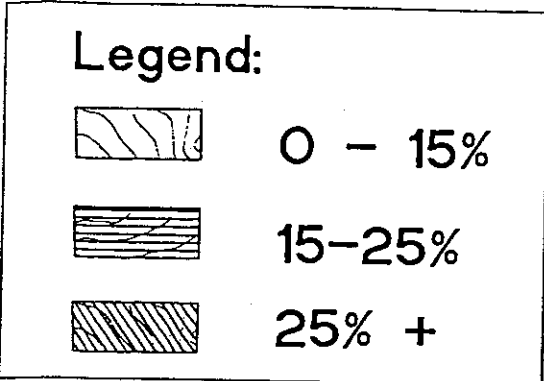
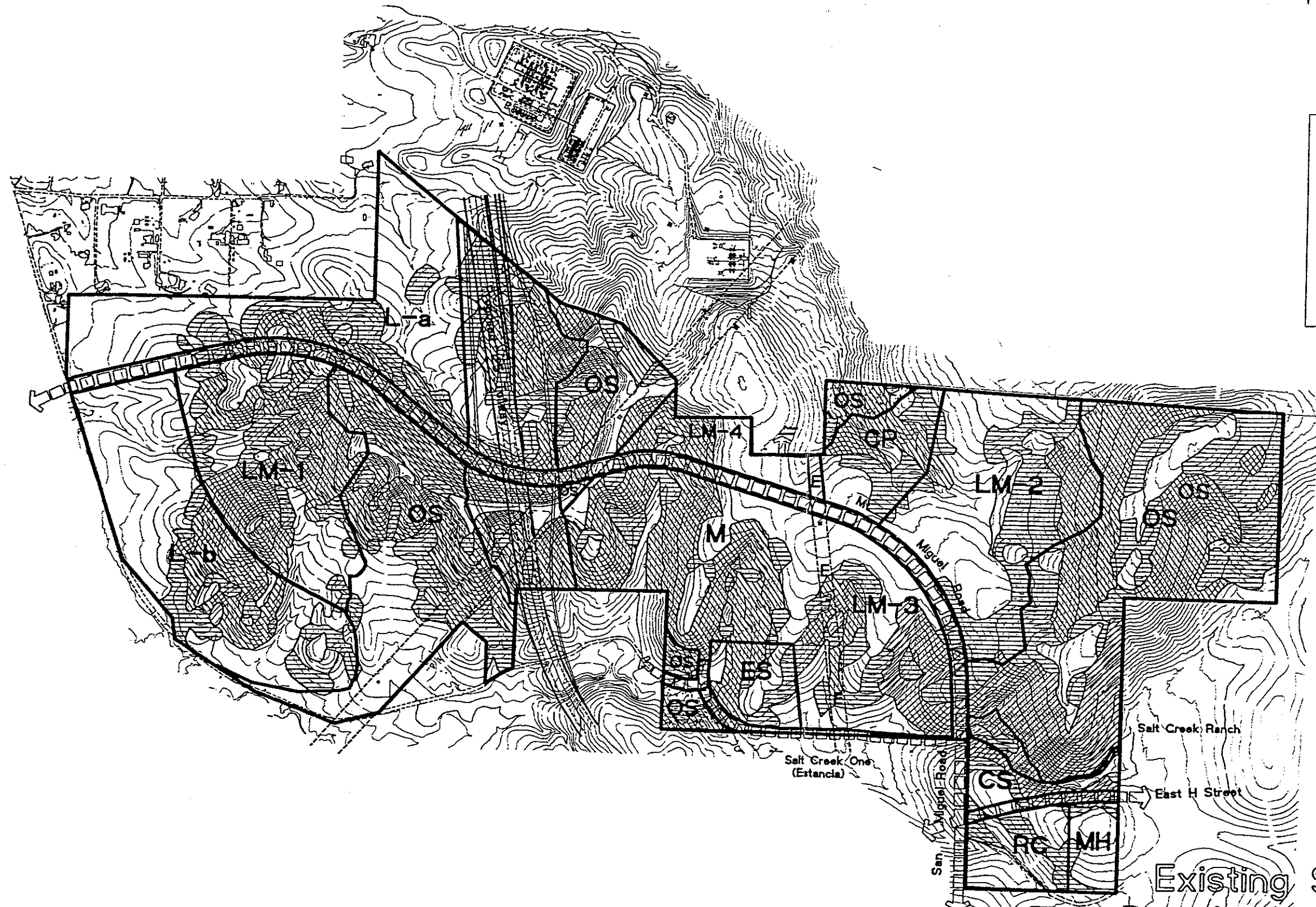
November, 1996

**ESTRADA Land Planning**

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 North Parcel  
 Existing Slope Analysis  
**San Miguel Ranch**  
 Emerald Properties Corporation  
 Figure 9

























South Parcel  
Existing Slope Analysis w/  
Development Bubble Overlay

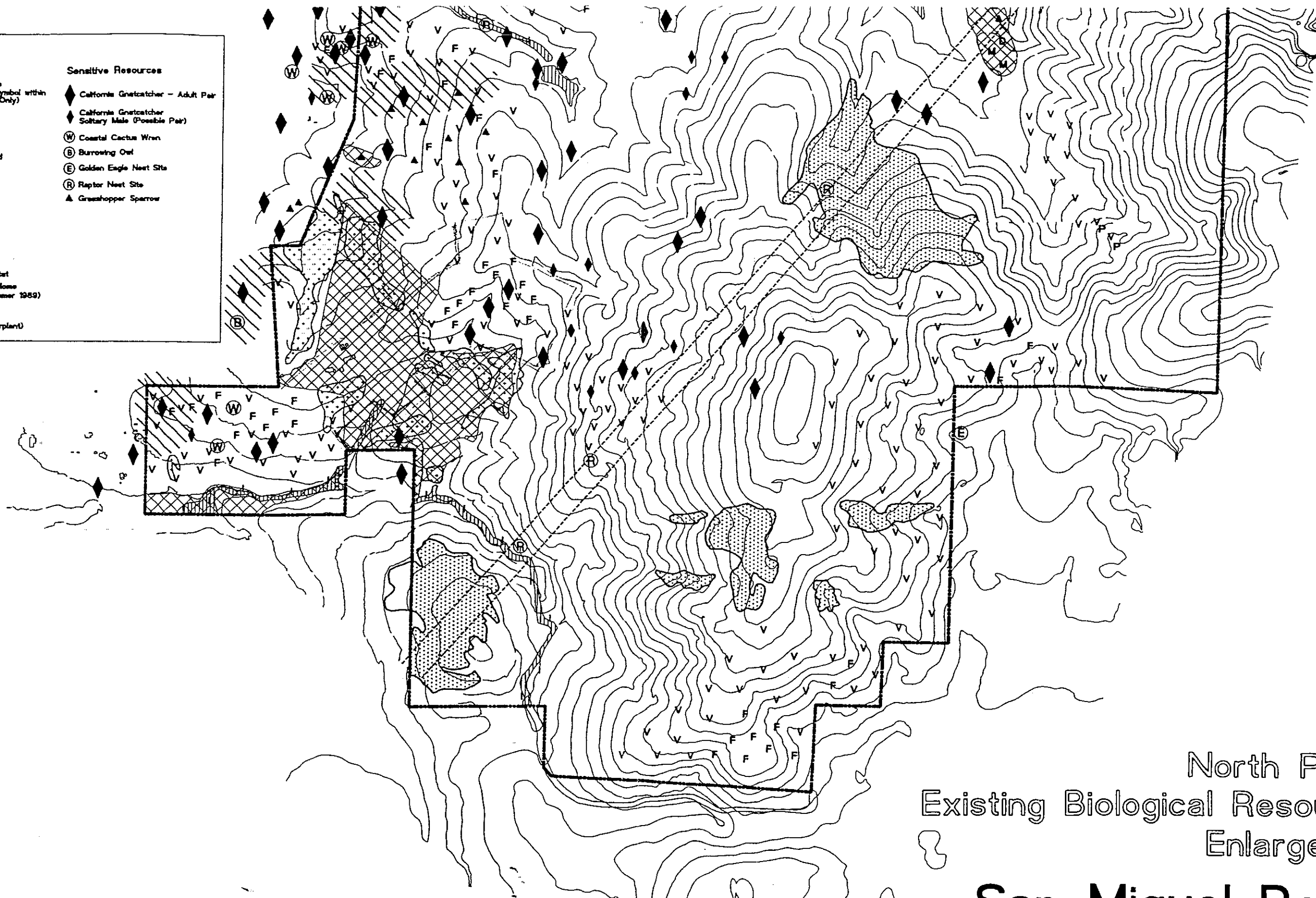
# San Miguel Ranch

Emerald Properties Corporation

Figure 10

**Legend:**

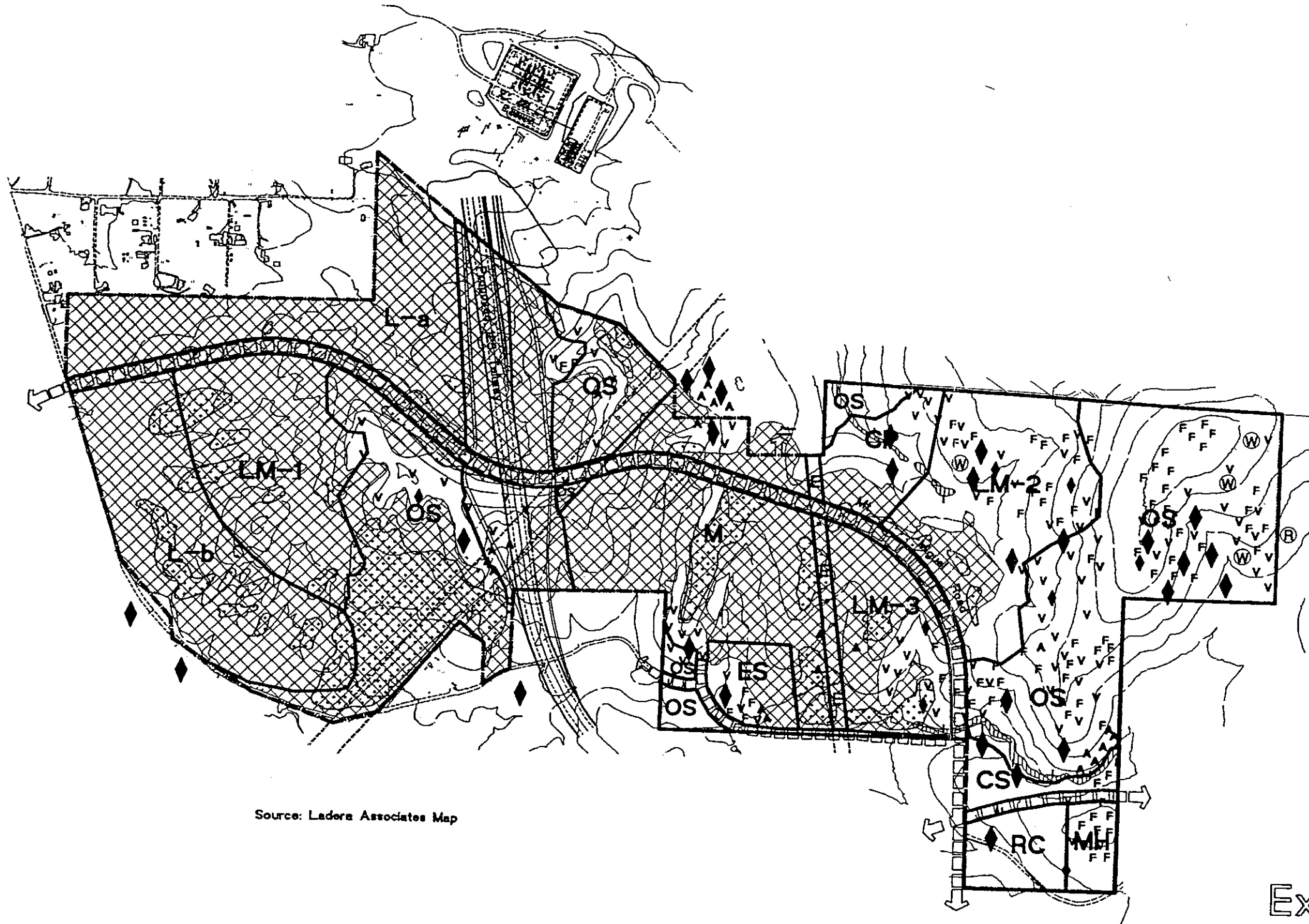
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|---|---|---|---|
| <b>Vegetation</b>   |   | <b>Sensitive Resources</b>  |   |
|  | Diegan Sage Scrub<br>(Denoted by No Symbol within<br>Project Boundary Only) |  | California Gnatcatcher - Adult Pair                     |
|  | Annual Grassland  |  | California Gnatcatcher<br>Solitary Male (Possible Pair) |
|  | Mixed Chaparral   |  | Coastal Cactus Wren                                     |
|  | Dry Marsh/Wetland   |  | Burrowing Owl   |
| <b>Sensitive Resources</b>  |   |  | Golden Eagle Nest Site                                  |
|  | <i>Adolphia Californica</i>   |  | Raptor Nest Site  |
|  | <i>Artemisia Palmeri</i>  |  | Grasshopper Sparrow                                     |
|  | <i>Dudleya Variegata</i>  |   |   |
|  | <i>Iva Heywoodiana</i>  |   |   |
|  | <i>Muhlenbergia Clevelandii</i>   |   |   |
|  | <i>Ferocactus Viridescens</i>   |   |   |
|  | <i>Salvia Muroli</i>  |   |   |
|  | <i>Viguiera Inchiola</i>  |   |   |
|  | <i>Selaginella Chamaeceras</i>  |   |   |
| <b>Sensitive Resources</b><br>(Throughout Sage Scrub Habitat)                     |   |   |   |
|  | Gnatcatcher Pair Home<br>Range (Spring/Summer 1989)                         |   |   |
|  | Otay Tarweed (Terrestrial)  |   |   |



North Parcel  
Existing Biological Resources  
Enlargement

**San Miguel Ranch**  
Emerald Properties Corporation  
Figure 11

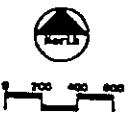
November, 1996  
**ESTRADA Land Planning**  
E:\PROJECTS\33301CAC\FINAL\GDPNBIO0.DWG  
Source: Ladera Associates Map



Source: Ladera Associates Map

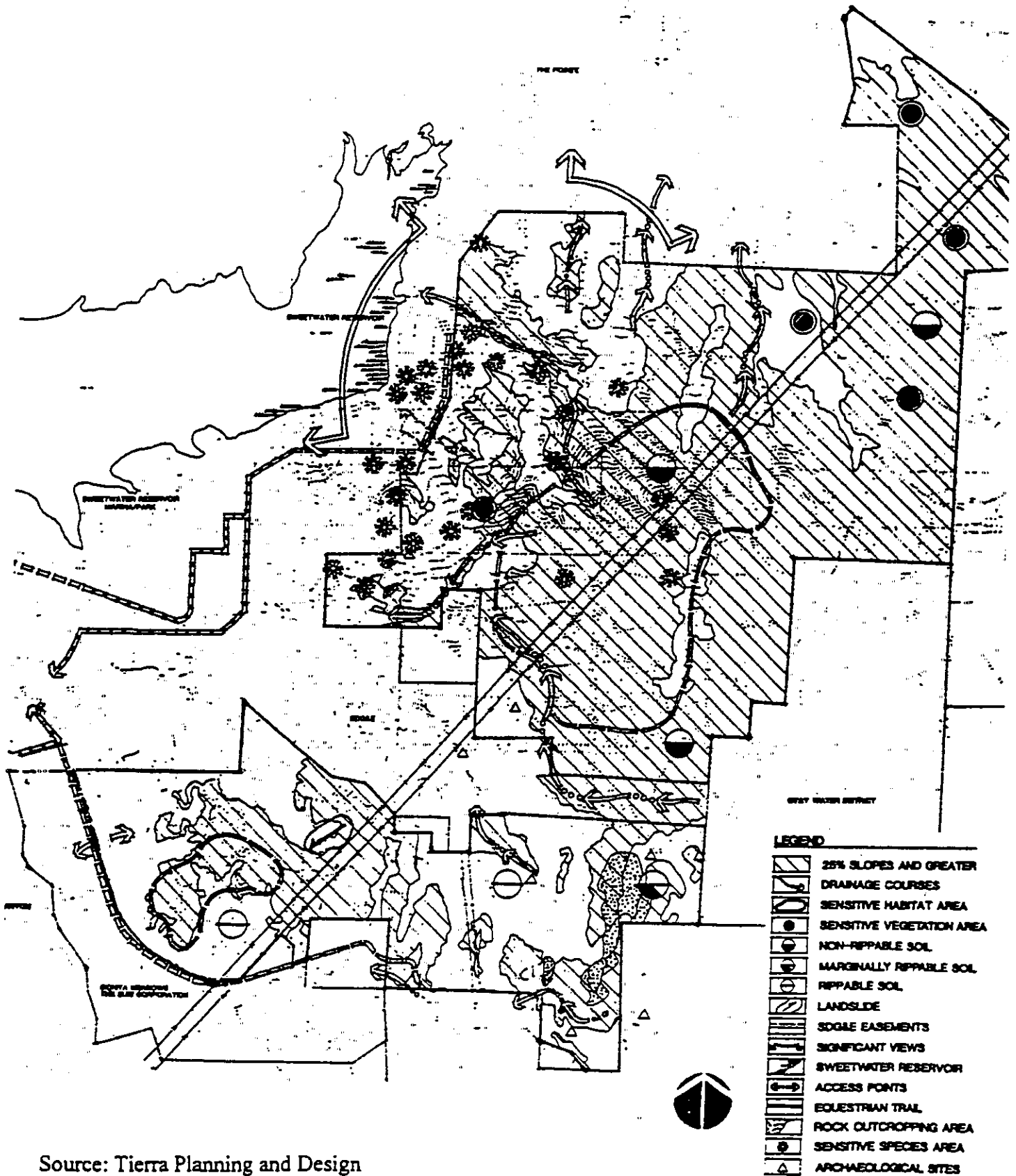
**Legend:**

<b>Vegetation</b>		<b>Sensitive Resources</b>	
	Diagan Sage Scrub (Denoted by No Symbol within Project Boundary Only)		California Gnatcatcher - Adult Pair
	Annual Grassland		California Gnatcatcher Solitary Male (Possible Pair)
	Mixed Chaparral		Coastal Cactus Wren
	Dry Marsh/Wetland		Burrowing Owl
<b>Sensitive Resources</b>			Golden Eagle Nest Site
A	Adolphia California		Raptor Nest Site
P	Artemisia Palmeri		Grasshopper Sparrow
D	Dudleya Variegata		Otay Tarweed (Tarplant)
I	Iva Haysiana		
M	Mulla Clevelandii		
F	Ferocactus Viridescens		
U	Salvia Munzii		
V	Viguiera lechinata		
	Salvinella Chiracensis (Throughout Sage Scrub Habitat)		



South Parcel  
Existing Biological Resources  
W/ Development Bubble Overlay

**San Miguel Ranch**  
Emerald Properties Corporation  
Figure 12



Source: Tierra Planning and Design

Figure 13: Site Analysis Summary Map

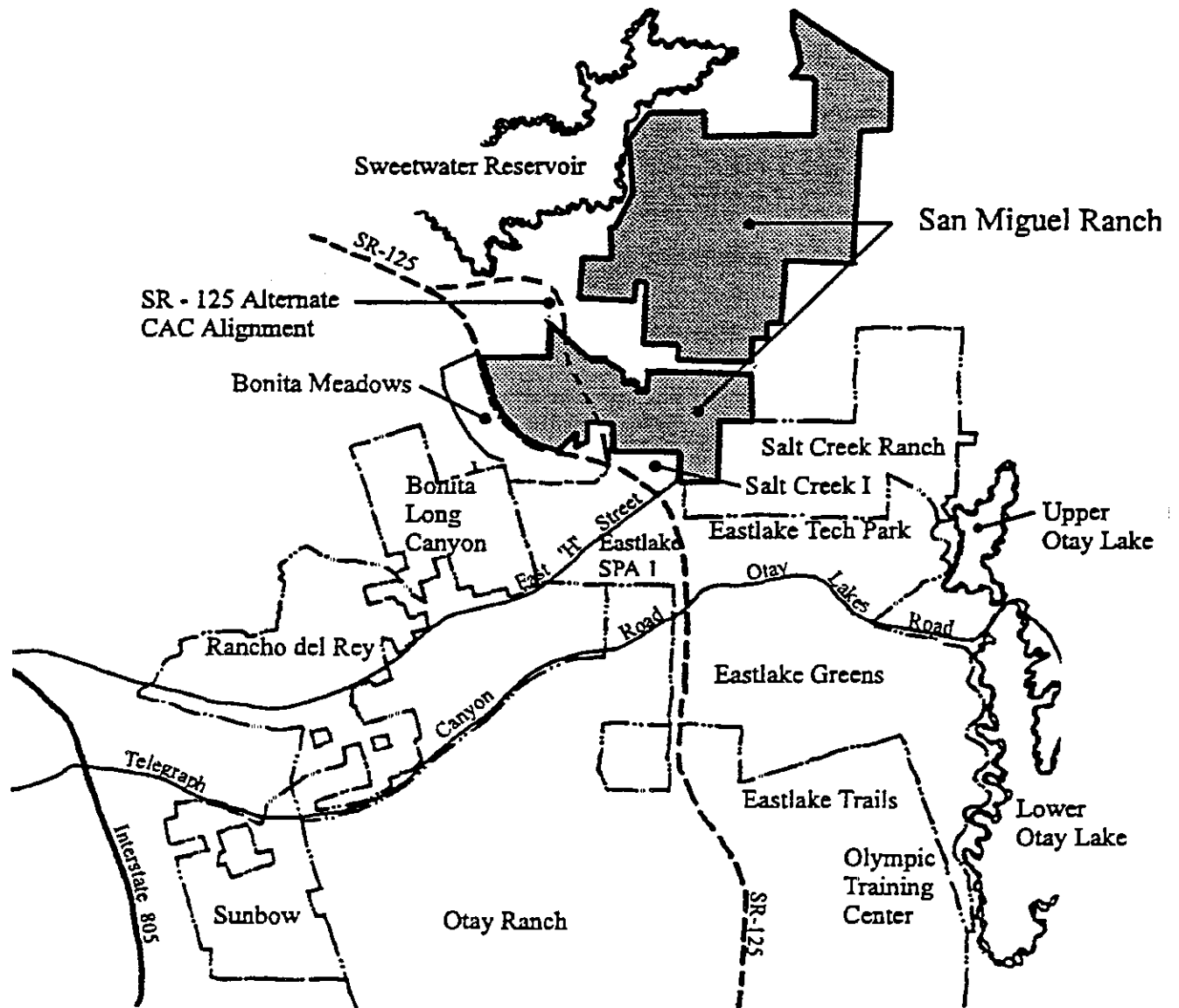


Figure 14: Regional Context Map

### *C. Land Use Concept*

The land use concept for San Miguel Ranch was generated by reviewing all of the major issues identified in the previous GDP, conducting a detailed site analysis, and establishing relevant goals and objectives. This overall analysis resulted in a determination of the areas most suitable for development. In general, the developable areas were established by incorporating into the design process topographical and biological considerations, the SR 125 right-of-ways, and visual constraints and opportunities. Local real estate market data was also analyzed to determine the housing types that are needed in the City of Chula Vista.

As a result of the North Parcel's significant biological habitat, drainage areas, unique landforms, and limited access due to the Horseshoe Bend Alignment for SR 125, the entire North Parcel would be preserved as a key component to the City's Subarea Plan and the MSCP/NCC Program. The South Parcel will be developed as a sensitive land plan that provides for numerous residential land uses fulfilling the housing needs of the City and the region. This sensitivity comes in response to maintaining the biological habitat, using the SDG&E easements for trails and links to open space, and being flexible with the residential land use categories adjacent to the Horseshoe Bend Alignment for SR 125. In addition, the South Parcel will also provide parks, schools, preserve natural open space, adds trails to the regional trail system, and provide for the right-of-way for SR 125.

The land use concept for San Miguel Ranch incorporates some concepts from neo-traditional town planning as well as more conventional planning. Cul-de-sacs will be minimized and vehicular and pedestrian access will be facilitated throughout the project. However, to minimize grading and to better respect the topography, the internal streets will not be "grid"-like, but will meander with the flow of the land.

San Miguel Ranch will be primarily a residential community. The land uses will include:

- Residential (low, low medium, medium and medium high)
- Elementary School
- Community Park
- Community Service
- Retail Commercial
- Open Space
- Trails

The design provides for logical and efficient land use patterns. Significant effort was given to the locations of the various land uses relative to each other, the proposed SR 125 alignments, and to their surroundings. For example, Mt. Miguel Road will act as a "spine" that will integrate and link the South Parcel together. This road was carefully placed to minimize grading and visual impacts by incorporating landform grading techniques that will enhance the character of the development and maximize the views from the road. A 20-foot wide parkway will be placed on each side of Mt. Miguel Road that will contain trails and pathways. The community park in the eastern half of the South Parcel will be located adjacent to this parkway as well as linking to the City's greenbelt system. This will allow a direct trail linkage from the park to the proposed regional trail.



Due to the need for a wider range of housing types in the region and to provide compatible densities adjacent to the existing higher densities found in Eastlake and Salt Creek I, the land use plan provides higher densities in the southeastern portions of the site. This flexibility in the residential land use was also helpful when establishing housing types adjacent to SR 125. The Bonita area, a low-density community, lies to the northwest of the site. Therefore, the lower density portions of San Miguel Ranch will be located in its northwestern area. In addition, affordable higher-density housing will be located adjacent to H Street and the commercial area. This location is desirable since these residents are more likely to use mass transit. In general, the density of the project will decrease from southeast to northwest.

The land use concept features various densities, variable lot sizes, and the preservation of significant open space areas. This includes the preservation of the entire North Parcel. The Amended Horseshoe Bend GDP provides for large single family lots of approximately one half-acre in size to multi-family housing. This design assures a wide variety of housing types that are planned in accordance with sound planning principles. The site's natural topography allows for good distant views from most of the varied residential areas.

The land uses are sensitive to the surrounding community. The internal design of the project will establish a residential community with a distinctive identifiable character. This community character will be defined, in part, by a large portion of the project (80 percent) devoted to the permanent preservation of open space lands and natural resources under the City's Subarea Plan and the MSCP/NCCP Program.

Figure 1 illustrates the land use concept for San Miguel Ranch. The project is characterized by its sensitivity to the natural environment and respecting the existing landforms. Only the most developable portions of South Parcels will be used to develop San Miguel Ranch, while retaining the North Parcel for the preservation of sensitive lands and natural resources in a manner that is consistent with the City's draft Subarea Plan and the MSCP/NCCP Program. The identity of the individual projects in the South Parcel will be strengthened by retaining these unique features. Community and commercial facilities are sited to serve the surrounding communities. Described below are the land use designations for San Miguel Ranch.

### *1. Residential*

The residential development for San Miguel Ranch will occur only in the South Parcel while still allowing for preservation of biologically sensitive areas of both the North and South parcels. San Miguel Ranch is envisioned as a planned community that will appeal to a variety of lifestyles by providing a diverse range of high quality housing.

The overall residential density is currently proposed to be 1,394 units within the 2,590-acre San Miguel Ranch site or an average of .54 dwelling units per gross acre (see Table 1). The proposed density is below the "midpoint" of the residential land use classifications of the Proposed GDP but above the "midpoint" of the City's Proposed General Plan for San Miguel Ranch. In addition, the proposed density has the added benefit of providing a greater variety of housing opportunities. There will be four different residential land use classifications, including:

- “Low” (0-3 dwelling units per gross acre)
- “Low Medium” (3-6 dwelling units per gross acre)
- “Medium” (6-11 dwelling units per gross acre)
- “Medium High” (11-18 dwelling units per gross acre)

**2. Commercial**

A commercial site will be needed to provide retail commercial uses to serve San Miguel Ranch and the surrounding community. The nearest commercial retail facility is approximately two miles to the west. A commercial site of approximately 14 acres will be located at the intersection of Mt. Miguel Road and East H Street. The commercial site will be adjacent to Salt Creek I and Salt Creek Ranch. The site is expected to attract an anchor supermarket plus ancillary retail/boutique shops.

**3. School**

San Miguel Ranch will provide an elementary school site. The school site will be located in the central portion of the site allowing for easy access to the residents of San Miguel Ranch. The school site will be approximately 12.4 acres, allowing for 10 net usable acres for the facility.

**4. Recreation**

Provisions for recreational opportunities have been a primary consideration for San Miguel Ranch. Over 34 acres will be established for parks, trails, and pathways that will tie into the City’s greenbelt. These amenities will contribute to establishing the character of San Miguel Ranch as a quality residential community with a focus on parks, recreation and open space. The recreation designation consists of the following:

**a. Community Park**

A community park of 19 gross acres will be located north of Mt. Miguel Road in the northeastern portion of the project. The Community Park will also be connected to the larger open space area that borders the northern boundary of the park giving the park access to the City’s greenbelt system.

**b. Trails**

San Miguel Ranch will contribute significantly to the City’s greenbelt. The bicycle and hiking trails traverse throughout San Miguel Ranch and will also connect and tie into the City’s greenbelt, on both a local and regional level.

**c. Open Space Corridor**

An open space corridor is within the eastern portion of the project following an SDG&E easement. This corridor will not be limited to the boundaries of the easement itself, but will meander in and out to create a more natural edge. It will extend north/south and link the surrounding residential development to the natural open space areas north of the South Parcel.

**5. *Community Services***

In the South Parcel, the San Miguel Ranch community will provide a community services site, consisting of 7.5 acres. The site will be located at the intersection of Mt. Miguel Road and East H Street, on the north side bordered by natural open space. In addition, this will be an ideal location for a park and ride, or similar facility, since a church or similar use would utilize the parking area during off-peak times.

**6. *Natural Open Space***

Large open space areas throughout San Miguel Ranch will be preserved and integrated into the community fabric. Subject to the terms of the City's Subarea Plan, the Amended Horseshoe Bend GDP would retain over 2,065 acres, or 80 percent, of the total project site as an ecological reserve devoted to the preservation and protection of sensitive species and habitat, including the entire North Parcel (1,852 acres) and a portion of the South Parcel (213 acres). The creation of this large "reserve" area would be responsive to, and consistent with, the City's Subarea Plan and the MSCP/NCCP Program.

The eastern portion of the South Parcel will remain as natural open space, preserving the ridgeline and prominent rock outcroppings as well as the sensitive habitat located in that area. Additional natural open space will be provided in the western portion of the South Parcel adjacent to the Low and Low Medium development areas of the project.

The open space area will be added as a key segment to the City's greenbelt. The greenbelt, which encircles the entire city, will be connected by trails from within the project. It is anticipated that the North Parcel, which includes Mother Miguel Mountain, will be a major destination for hikers. This will be due in part to the spectacular views afforded from this area.

## ***D. Amended Horseshoe Bend General Development Plan***

The Amended Horseshoe Bend GDP is illustrated in Figure 1. For planning purposes, the site is discussed in terms of the 1,852-acre North Parcel, and the 738-acre South Parcel. The previously approved GDP called for 357 one-acre estate lots on the North Parcel, and 1,262 lots on the South Parcel. Subject to the terms of the City's Subarea Plan, the Amended Horseshoe Bend GDP would preserve the entire North Parcel in an ecological reserve as permanent and protected natural open space. The preservation of the North Parcel is consistent with the City's Subarea Plan and the MSCP/NCCP Program.

As amended, the South Parcel will consist of 1,394 units (1.89 dwelling units per acre), which is under the midpoint analysis for the Amended Horseshoe Bend GDP and consistent with the City's Proposed General Plan residential land use classifications proposed range. Below is a brief summary of the amended plan.

### ***1. North Parcel***

The 1,852-acre North Parcel includes coastal sage scrub habitat and varied terrain, including Mother Miguel Mountain. Because of the sensitivity of this habitat, the Horseshoe Bend GDP does not propose any development in the North Parcel, subject to the assurances set forth in the City's Subarea Plan.

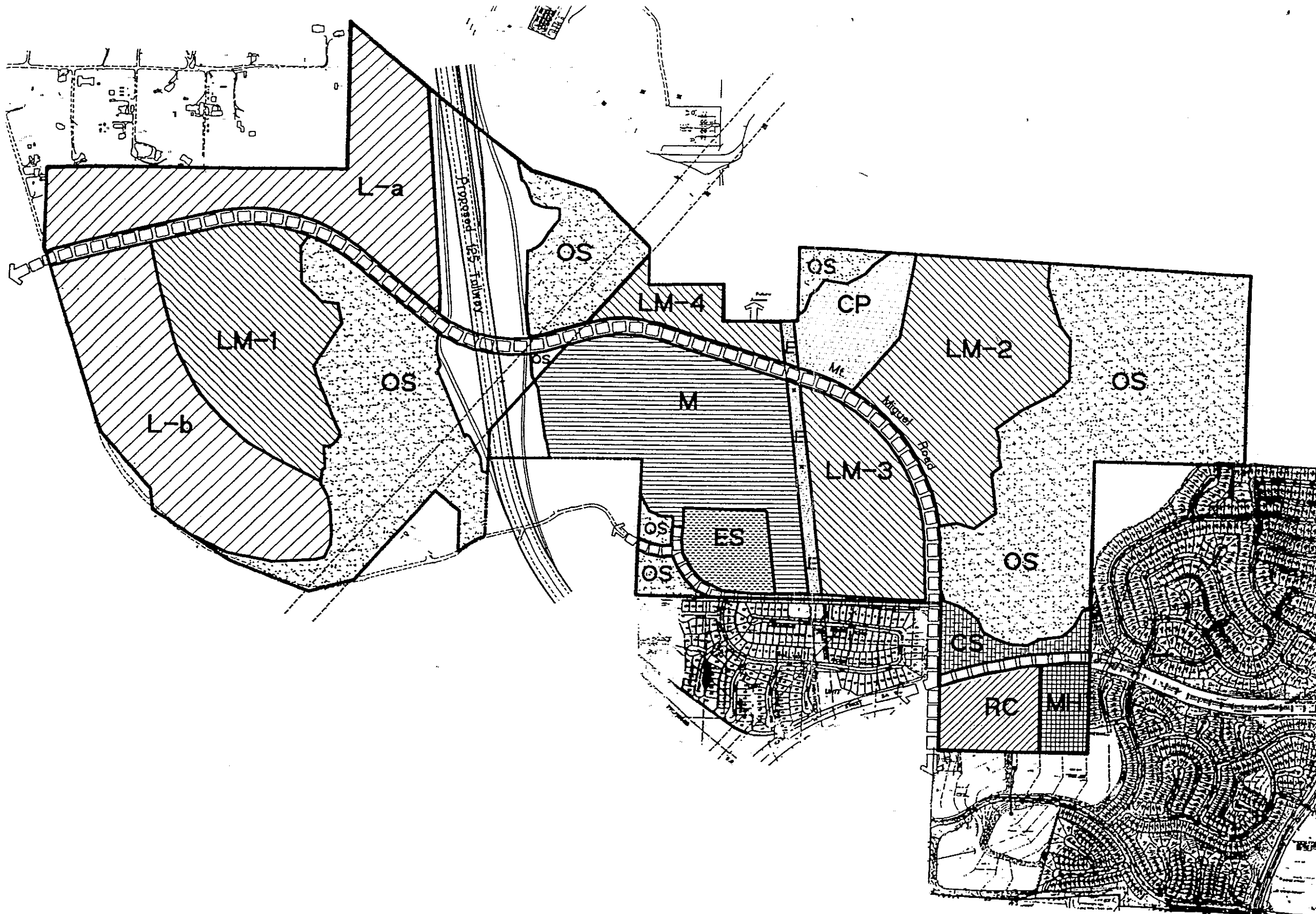
### ***2. South Parcel***

The 738-acre South Parcel will consist of 1,394 dwelling units with over 247 acres devoted to parks, parkways, and permanent open space. Most of the development areas will be surrounded by, or in close proximity to, parks and open space. The South Parcel will also include:

- residential development, consisting of detached, single-family units on various lot sizes west of SR125. East of SR 125 the residential development would consist of detached single family units on various lot sizes and attached units including multifamily housing;
- commercial retail uses;
- community service site;
- elementary school site.

The SR 125 alignment in the Amended Horseshoe Bend GDP will bisect the South Parcel, providing two development areas on the east and west sides of the proposed highway. With this alignment, a wider range of residential land use classifications was determined to be necessary to allow for greater compatibility for housing adjacent to the proposed highway. Access to the project site will be from SR 125, Mt. Miguel Road and East H Street. Individual land use areas will have an internal network of streets that feed into Mt. Miguel Road or East H Street.

Development within the South Parcel will be characterized by sensitivity to the natural environment and grading will be minimized to respect and preserve valuable habitat areas. Landform grading will be used along the major streets and in high visibility areas to maintain a natural viewshed and enhance the character of the development. The individual identity of projects within the South Parcel will be enhanced by the varied topography and the retention of natural drainage and open space. Figure 15 illustrates the South Parcel Amended Horseshoe Bend GDP.



Legend	
Symbol	Land Use
Residential Uses	
L	L (5 - 3 DU/Acre)
LM	LM (3 - 6 DU/Acre)
M	M (6 - 11 DU/Acre)
H	H (18 - 27 DU/Acre)
Commercial Uses	
RC	
Institutional Uses	
CS	Community Service Site
ES	Elementary School Site
Open Space Uses	
CP	Community Park
E	Utility Easements/Parkways
OS	Natural Open Space

South Parcel  
 Amended  
 Horseshoe Bend  
 General Development Plan  
**San Miguel Ranch**  
 Emerald Properties Corporation  
 Figure 15

### ***E. Statistical Summary***

The following is a statistical summary of the Amended Horseshoe Bend GDP . The statistical summary is based on the Amended Horseshoe Bend GDP Map (Figure 1). The acreage shown in the statistical summary are to the nearest one-tenth acre. Minor modifications which result from technical refinements in the San Miguel Ranch SPA Plan and the tentative maps shall not require an amendment to this Amended Horseshoe Bend GDP as long as future plans and maps are generally consistent with the overall intent of the Amended Horseshoe Bend GDP. Table 1 is a land use acreage analysis of the Amended Horseshoe Bend GDP.

Table 2 provides an analysis of the residential "Midpoint" ranges under the Amended Horseshoe Bend GDP. The dwelling unit totals shown in Table 2 reflect the range of densities and unit totals permitted on the site based on the baseline, mid-point and high densities outlined in the Land Use Element of the City's General Plan. The range of dwelling units proposed by the Amended Horseshoe Bend GDP will be between 1,054 to 2,274 dwelling units with an overall gross density ranging from .41 - .88 dwelling units per acre. It is anticipated that San Miguel Ranch will create a new development that will be significantly lower than the midpoint density (1,698 units) with a total of 1,394 units and an average gross density of .54 dwelling units per acre.

The estimated population of San Miguel Ranch is 4,140. These population projections are based on development of San Miguel Ranch at 1,394 dwelling units using SANDAG population standards of 2.97 persons per dwelling unit.

This projection is provided for reference only and is not intended to be the sole basis for projecting service needs nor a limitation on permitted dwelling units.

The range of product types within San Miguel Ranch will be expected to appeal to a broad segment of the market. The applicant will work with City staff to develop a mutually agreeable program for the provision of affordable housing. Pursuant to the Housing Element of the General Plan, the standard for affordable housing is 5% of the total dwelling units in the project for low-income families and 5% for moderate-income families. The details of this program shall be incorporated in the San Miguel Ranch SPA Plan.

*Table 1 - Land Use Summary Table for San Miguel Ranch*

<b>Amended Horseshoe Bend GDP Land Use Summary Table</b>				
<b>Symbol</b>	<b>Land Use</b>		<b>Acreage</b>	<b>Units</b>
<b>Residential Uses</b>				
South Parcel				
L	Low	(0 - 3 DU/Acre)	132.3	184
LM	Low-Medium	(3 - 6 DU/Acre)	165.8	624
M	Medium	(6 - 11 DU/Acre)	67.5	473
MH	Medium High	(12 - 17 DU/Acre)	7.8	113
Residential Total			<b>373.4</b>	<b>1,394</b>
<b>Commercial Uses</b>				
RC	Retail Commercial		<b>13.9</b>	
<b>Institutional Uses</b>				
CS	Community Service Site		7.5	
ES	Elementary School Site		12.4	
Institutional Total			<b>19.9</b>	
<b>Open Space Uses</b>				
North Parcel				
OS	Natural Open Space		1,852	
South Parcel				
CP	Community Park		19.0	
E	Utility Easements/Parkways		15.4	
OS	Natural Open Space		213.2	
Open Space Total			<b>2,099.6</b>	
<b>Circulation Element Uses</b>				
125 ROW	SR-125 ROW		51.9	
	Major Roads		31.5	
Circulation Element Total			<b>83.4</b>	
<b>TOTALS</b>			<b>2,590.2</b>	<b>1,394</b>

Source: Estrada Land Planning



Table 2 - Amended Horseshoe Bend General Development Plan "Midpoint" Analysis

<b>Amended Horseshoe Bend GDP Residential "Midpoint" Analysis</b>						
Symbol	Land Use	Acres	Units Allowed			
			Minimum	Midpoint	Maximum	Proposed*
<b>South Parcel</b>						
L	Low (.5 - 3 DU/Acre)	132.3	66	265	397	184
LM	Low Med. (3 - 6 DU/Acre)	165.8	497	746	995	624
M	Med. (6 - 11 DU/Acre)	67.5	405	574	742	473
MH	Med. High (11 - 18 DU/Acre)	7.8	86	113	140	113
South Parcel Residential Total		373.4	1,054	1,698	2,274	1394
Avg. Gross Density Over 738.2 Acres (South Parcel Only)			1.43 du/ac	2.30 du/ac	3.08 du/ac	1.88 du/ac
<b>North Parcel</b>						
OS	Open Space	1852	0	0	0	0
<b>Entire Project</b>			1,054	1,698	2,275	1394
Average Gross Density Over 2,590.2 Acres (Entire Project)			0.41 du/ac	0.66 du/ac	0.88 du/ac	0.54 du/ac

Source: General Plan of Chula Vista Section 4.1

\*This is maximum units only.

GDP Midpoint Density Assumptions:

L	2.0 du/ac.	MH	14.5 du/ac.
LM	4.5 du/ac.	H	22.0 du/ac.
M	8.5 du/ac.		

## ***F. Grading Concept***

The primary grading concept for San Miguel Ranch will be to reduce the amount of grading, minimize the need for large exposed cut or fill areas, and decrease the need for large manufactured slope heights. Grading and landform alterations within San Miguel Ranch will be sensitively conducted to protect important natural features and landforms, and to minimize the amount of landform alterations. Major natural land features, such as on-site rock outcroppings and ridgelines, will be protected.

Where grading will be required, techniques will be employed to allow manufactured slopes to be varied and contoured with the natural forms. In areas that have been graded, the manufactured slopes and graded areas will be revegetated with native or native-like plant material that will transition into the natural open space. Additional guidelines for grading are outlined in Chapter V, Development Guidelines. The grading concept for San Miguel Ranch is illustrated in Figure 16.



South Parcel  
Grading Plan

# San Miguel Ranch

Emerald Properties Corporation

Figure 16

November, 1996

**ESTRADA** Land Planning

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## IV Project Components

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San Miguel Ranch will be comprised of the following seven major land use components:

- Residential
- Commercial
- Schools
- Recreation and Trails
- Community Services
- Open Space
- Circulation

All of these components are designed to take full advantage of the site's unique characteristics and features. A description of each component is provided below.

### **1. Residential Component**

The primary land use component for San Miguel Ranch will be residential. The residential development will consist of four different residential categories. The residential components consist of the following:

#### **1. "Low" (0-3 dwelling units per gross acre)**

The "Low (L)" land use designation will be provided in two areas of the South Parcel totaling almost 132.3 gross acres and provided approximately 184 single-family lots. This residential land use category will allow for a similar housing type adjacent to the existing community of Bonita and provide for large single-family view lots in the western portion of the South Parcel.

a. "L-a" will be located on the western edge of the South Parcel adjacent to the existing Bonita area and bordered on the south by Mt. Miguel Road. The area is more than 63 gross acres in size and will include approximately 69 large single-family lots. These lots would include sizes from approximately 28,000 square feet (adjacent to the Bonita area) to 15,000 square feet. These large single-family lots will provide a gradual land use transition from the surrounding Bonita development to the higher residential land use categories in the South Parcel.

b. "L-b" will be located in the western portion of the South Parcel and bordered on the east by the LM-1 and on the north by Mt. Miguel Road. The parcel consist of over 69 acres and will provide approximately 115 single family view lots ranging from 20,000 to 15,000 square feet in size.

#### **2. "Low Medium" (3-6 dwelling units per gross acre)**

The "Low Medium (LM)" designation will comprise approximately 166 total gross acres and allow for approximately 624 residential units. This land use category has been established because it closely represents the housing most in demand in Chula Vista, and because it provides flexibility in the type of housing that could be located adjacent to SR 125. There are

two "clusters" of this category in the South Parcel. One will be on the west side of SR 125 and the other will be on the east side of SR 125 in the central and eastern part of the South Parcel. There is a significant open space buffer between the east "LM cluster" and the Salt Creek Ranch project. There are four distinct areas of "LM," each with different characteristics, acreage allocations, and pad sizes:

- a. "LM - 1" will be located along the south side of Mt. Miguel and adjacent to the natural open space comprising of 56 gross acres. LM - 1 will provide approximately 131 single family lots with a minimum size of 7,000 square feet.
  - b. "LM - 2" will be located on the east side of San Miguel Ranch and bordered by the community park on the west, the natural open space to the east and south, and Mt. Miguel Road on the west. "LM - 2" also extends to the north boundary of San Miguel Ranch and contains approximately 62 gross acres. Approximately 278 single family lots are allocated to "LM - 2" ranging in size from 7,500 to 5,000 square feet.
  - c. "LM - 3" will be located in the central portion of the project. It will be bordered by Mt. Miguel Road to the north and east, S.G.&E easement to the west, and the San Miguel Ranch boundary to the south. "LM - 3" will consist of approximately 35 acres and approximately 156 single family lots ranging in size from 5,500 to 4,000 square feet.
  - d. "LM - 4" will be the smallest parcel in the LM category. It consists of 13 acres and will be located north of the M category and Mt. Miguel Road adjacent to the natural open space / SDG&E easement. "LM - 4" will provide approximately 59 single family lots ranging in size of from 5,000 to 4,000 square feet.
3. *"Medium" (6-11 dwelling units per gross acre)*  
The "Medium (M)" designation will be also located in central portion of the project and will be defined by the open space / SDG&E easement on the west and SR 125 on the east. The "M" residential designation will be approximately 68 acres and will provide both detached and attached product types of approximately 473 units. The detached units will include small lots of 4,000 to 3,000 square feet, while the attached units will include townhomes, patiohomes, zero lot line homes, and duplex units.
4. *"Medium High" (11-18 dwelling units per gross acre)*  
The "Medium High" designation will be south of East H Street adjacent to Salt Creek Ranch. The parcel will be approximately 8 acres in size and will provide for approximately 113 multi-family housing units (subject to agreement with the Community Development Department). The portion of the affordable housing element will be located in this area to allow for close proximity to community and commercial services.

## ***B. Commercial Component***

The commercial component will consist of approximately 14 acres, located in the southeast portion of San Miguel Ranch at the intersection of Mt. Miguel Road and East H Street. This location will provide access to both the surrounding communities and San Miguel Ranch. It is anticipated that the commercial component will provide retail commercial and service commercial uses.

## ***C. School Component***

The school component will be located adjacent to the "M" land use designation in the south central portion of the project. The site is also in close proximity to a large portion of the residential land uses. The site will be designated for an elementary site (grades 1-6) and will consist of approximately 12.4 gross acres or 10 net acres.

## ***D. Recreation and Trails Component***

The recreation and trails component consists of a community park and a trail system that will lead into the City's greenbelt. These amenities will contribute to establishing the character of San Miguel Ranch as a residential community with a focus on parks, recreation and open space. The recreation and trails component, as illustrated in Figures 17 and 18, consists of the following:

### ***1. Community Park***

In the South Parcel, a community park of approximately 19 gross acres will be located north of Mt. Miguel Road and adjacent to the north boundary of the project. The park will be located to serve the residents in the east portion of San Miguel Ranch, and to serve the surrounding communities. The community park will be connected to the natural open space area that borders the northern boundary of the park and will link to the City's greenbelt system.

Uses for the Community Park are currently being studied by a special committee. The committee's proposals will then be used to establish the specific uses to be included in the park and to serve the surrounding community. However, it is anticipated that a traditional community park will be recommended, rather than a specialized one, such as a tennis park.

### ***2. Trails***

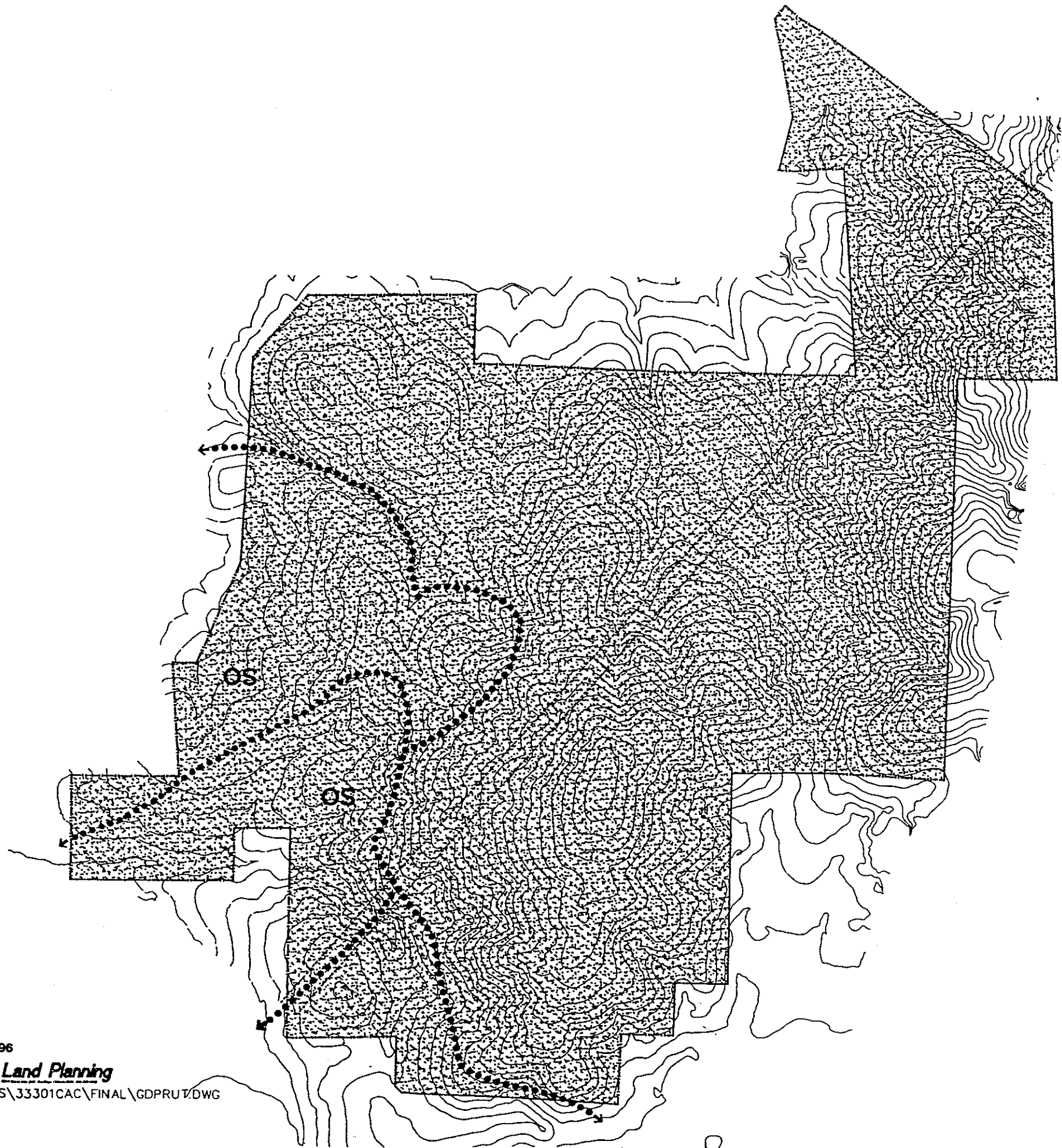
San Miguel Ranch will be an integral segment in the City's greenbelt. Bicycle and hiking trails are proposed for both the North and South Parcels. These trails will connect and tie into the City's greenbelt on both a local and regional level.

### ***3. Open Space Corridors***

The open space corridor is in the 120-foot SDG&E easement corridor in the eastern portion of the project. This corridor will not be limited to the boundaries of the easement itself, but will meander in and out to create a more natural edge. It will extend north/south and link the surrounding residential development and the natural open space north of the South Parcel.

### *E. Community Services Component*

The community services component will be located in the southern portion of the project. This component will provide more than 7.5 acres for future community services uses (such as a church site). The site will be located at the intersection of Mt. Miguel Road and East H Street. The north side will be bordered by natural open space. This location will service San Miguel Ranch and the surrounding communities, such as Salt Creek Ranch and Salt Creek I. Portions of the site will contain a large parking lot that could be used as a park and ride facility.



Legend:  
..... Greenbelt Trail



North Parcel  
Recreation Uses and Trails

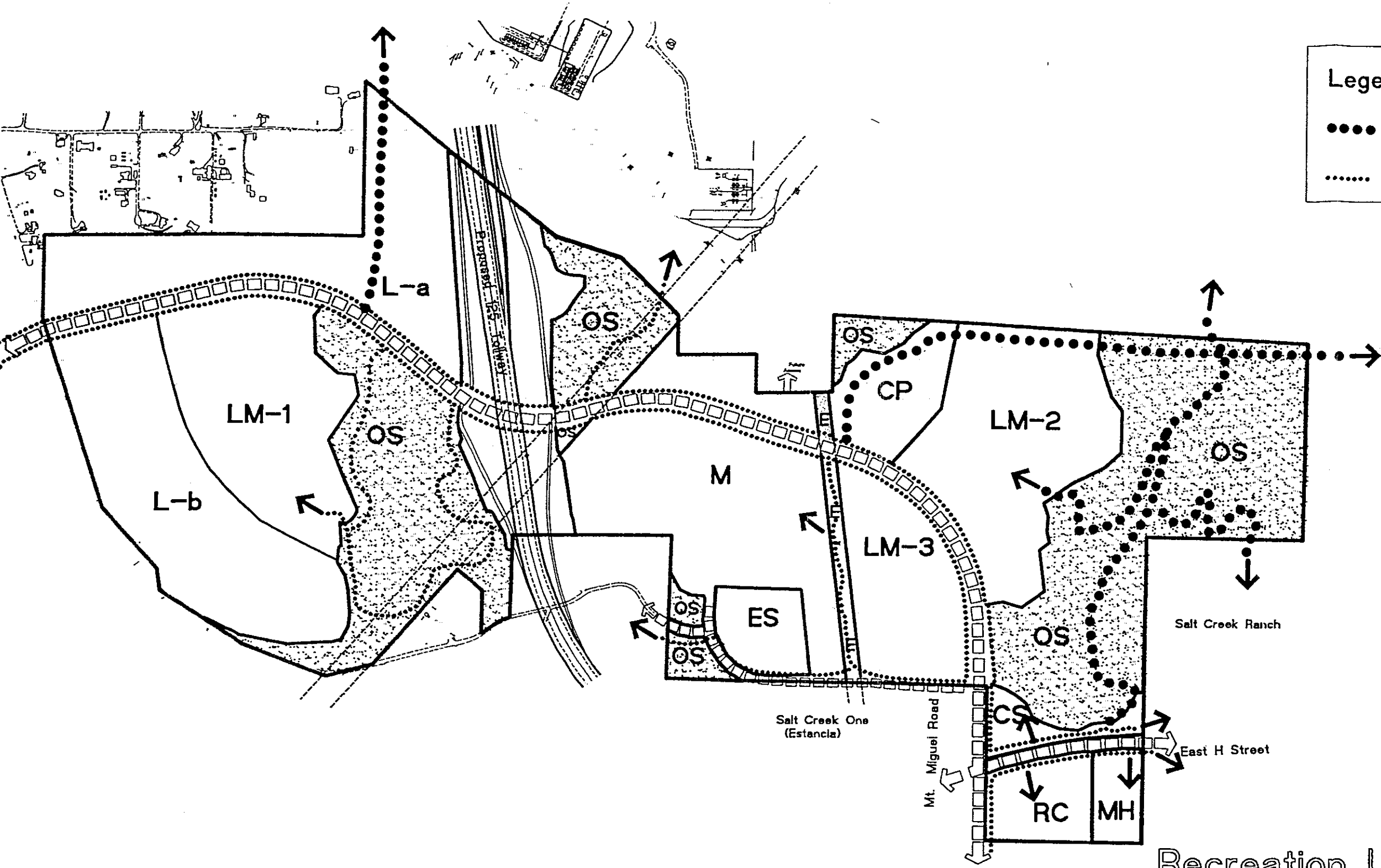
**San Miguel Ranch**  
Emerald Properties Corporation

Figure 17



Legend:

- Greenbelt Trail
- ..... Private Trail



South Parcel  
Recreation Uses and Trails

# San Miguel Ranch

Emerald Properties Corporation

Figure 18

## ***F. Open Space Component***

The open space component consists of 2,065 acres, or 80 percent, of the total project site. This land will be devoted to the creation of an ecological reserve for the preservation and protection of sensitive lands and natural resources in accordance with the City's Subarea Plan and the MSCP/NCCP Program. If established, this reserve would encompass the entire 1,852-acre North Parcel, and an additional 213 acres in the South Parcel (including the designated Otay Tarplant preserve).

This proposed open space component plays a major role in defining the development patterns for the San Miguel Ranch community. All of the residential land uses are either adjacent to or in close proximity with the open space areas. This design provides a dramatic backdrop to the San Miguel Ranch community. In addition, the open space of San Miguel Ranch will be a key segment of the City's greenbelt. The greenbelt will be connected by trails from within San Miguel Ranch.

## ***G. Circulation***

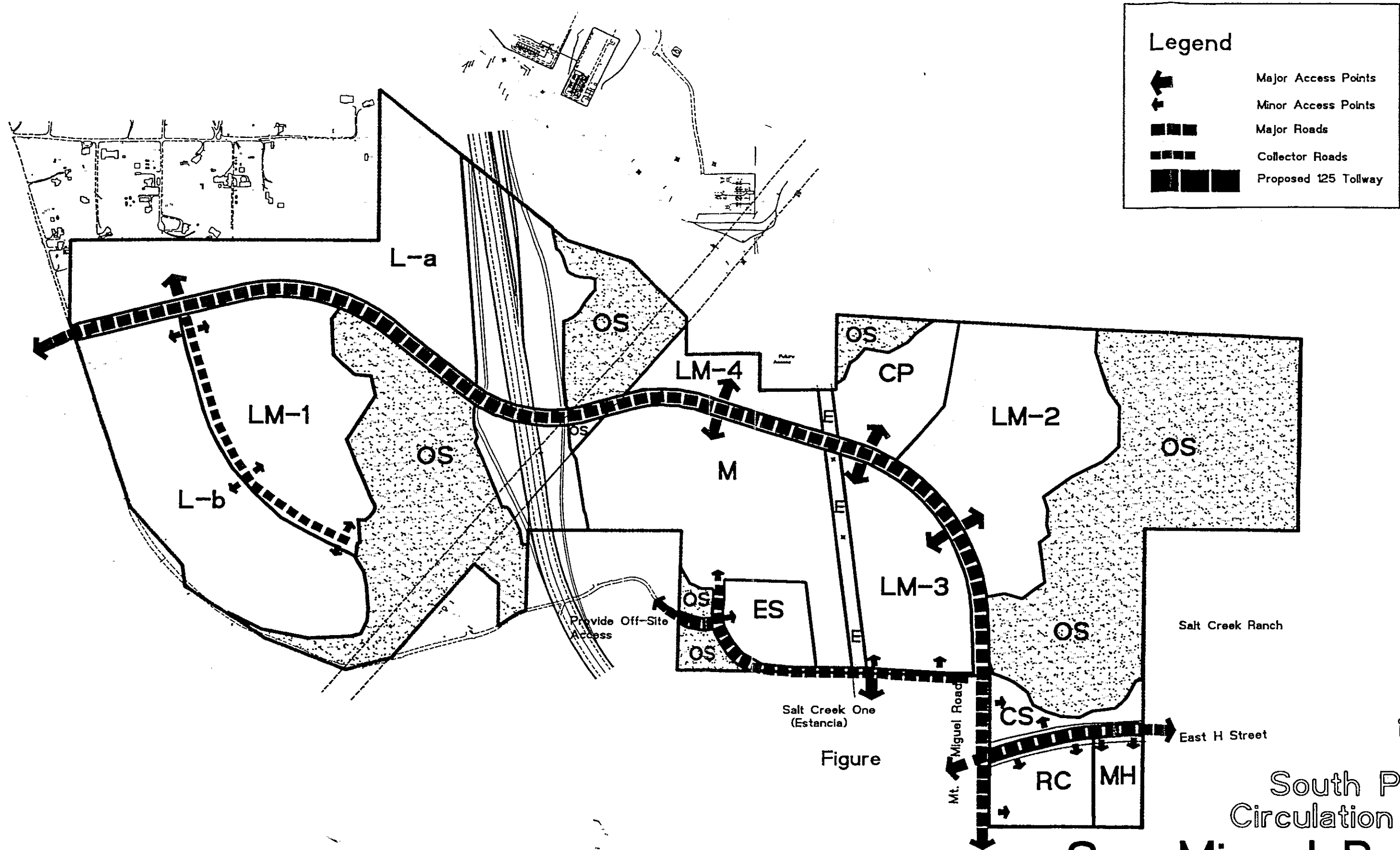
Figure 19 illustrates the proposed major circulation plans for San Miguel Ranch. The proposed Horseshoe Bend alignment for SR 125 would be situated through the central portion of the South Parcel in a north / south direction.

Mt. Miguel Road is proposed as a four-lane class 1 collector road that will provide an important link to help implement the City's Circulation Element by connecting East H Street to Bonita Road. The proposed roadway will carry traffic to local collectors within the development area of San Miguel Ranch. It will also provide access to the proposed SR 125, connect to Proctor Valley Road on the west side of the project, and improve circulation for safety and emergency services.

Mt. Miguel Road will utilize landscaped parkways and medians to provide a safe and attractive envelope which will allow pedestrian, bicycle and automobile movements with a minimum of conflict.

East H Street, which will be a six-lane prime arterial, is a designated scenic highway. It will cross the site in the southeast corner as a six-lane major road. It will separate the community services and open space areas north of it to the high density residential and commercial uses south of it.

Secondary roads, although not designed at this level, will serve the rest of the community and take access from Mt. Miguel Road and East H Street.



South Parcel  
Circulation Plan  
**San Miguel Ranch**  
Emerald Properties Corporation  
Figure 19

## *V Development Guidelines*

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### *A. Overall Project Guidelines*

The overall goal of the Amended Horseshoe Bend GDP is to provide the framework for the development of San Miguel Ranch as a distinctive and diverse residential community while respecting its natural character. The objectives of the development guidelines are to:

- provide a land use plan which is consistent with the open space policies of the City of Chula Vista and which complements the regional open space system envisioned in the Chula Vista General Plan and the Eastern Territories Area Plan;
- provide a land use plan which is sensitive to the existing topographic character of San Miguel Ranch and includes well-designed transitions between natural and man-made environments;
- provide general guidelines for site planning and urban design to direct the character of development within the project in a manner consistent with the General Plan and Eastern Territories Area Plan;
- provide a circulation plan which is consistent with Chula Vista's circulation standards and links San Miguel Ranch to surrounding transportation corridors;
- provide a framework for phasing the project while ensuring that community facilities and services are provided concurrently with demonstrated need; and
- provide a land use plan which offers housing types that are compatible with the proposed SR 125 and which meets the needs of the growing population of the South Bay region while providing sufficient flexibility for changing economic conditions.

### *B. Specific Land Use Guidelines*

The following guidelines are for the individual land use categories. The guidelines will provide the framework for future development as well as the “starting point” for the design elements in subsequent SPA plans.

#### *1. Residential Guidelines*

The Amended Horseshoe Bend GDP establishes the location for four residential categories designated on the project site. The four residential categories (L, LM, M, and MH) will be located in the South Parcel.

The following general guidelines will direct the design of residential development throughout San Miguel Ranch:

- a. Design development shall be governed by the Design Manual of the City of Chula Vista and the guidelines included in the subsequent San Miguel Ranch SPA Plan.
- b. The street patterns shall conform to the nature of the existing landforms.
- c. Detailed design standards for each residential category will be included in the San Miguel Ranch SPA Plan. The overall character of the residential category shall be as follows:

- ***Residential - Low (0-3 dwelling units/acre)***

This "L" category is primarily intended for the rural residential housing. It includes single family detached units on large lots as well as the potential for custom home development. The west portion of the South Parcel contains the two areas with the L residential land use category.

"L-a" will allow for large single-family lots. Residential lots and circulation should be organized to follow the existing topography and allow for maximum view potential to the Sweetwater Valley and Bonita communities. Adequate buffering and setbacks should be provided for those lots that will be adjacent to Mt. Miguel Road and SR 125. Consideration should also be given to minimizing the noise potential generated from SR 125.

"L-b" will be located on the far western portion in the South Parcel. Residential lots should be oriented to maximize views to the west and south. Streets can be organized in a neo-traditional fashion with minimal use of cul-de-sacs. Allow for pedestrian connections to the natural open space. Adequate buffering and setbacks should also be provided in both areas for those lots that will be adjacent to Mt. Miguel Road.

- ***Residential - Low Medium (3-6 dwelling units/acre)***

The "LM" category is intended for single-family detached units on mid-sized lots. "LM" will be located in four different areas within the South Parcel and are identified as "LM-1" thru "LM-4."

"LM - 1" will be located in the western portion of the project by the natural open space area and south of Mt. Miguel Road. Circulation and residential lots will be organized in a modified neo-traditional fashion. This would include a "modified circular grid" layout for the streets providing interconnections and minimal use of cul-de-sacs. The streetscape should be characterized by varied building setbacks, street tree plantings, and garages that do not dominate the front yard.

"LM - 2" will be located on the east side of San Miguel Ranch and bordered by the natural open space to the east and south, the community park on the west and Mt. Miguel Road on the west and southwest.

The parcel will have two access points from Mt. Miguel Road and the general layout will follow that of a modified neo-traditional design. This would consist of a modified grid pattern street system, the limited use of cul-de-sacs, varied building setbacks, and enhanced streetscape design. Pedestrian access to the community park would also be maintained.

Adequate buffering and setbacks will be provided for those lots that will be adjacent to Mt. Miguel Road. In addition, those lots that are adjacent to the natural open space will require fuel modification to reduce the possibility of fire damage to property.

**"LM - 3"** is located on the west side of San Miguel Ranch and border the SDG&E easement. The parcel will have two access points from Mt. Miguel Road and the general layout will follow that of a modified neo-traditional design. This would consist of a modified grid pattern street system, the limited use of cul-de-sacs, varied building setbacks. The streetscape should include varied building setbacks, strong street tree plantings, and garages that do not dominate the front yard.

**"LM - 4"** area will be a small enclave of single family lots north of Mt. Miguel Road. It will also be the smallest of the LM parcels. The area is adjacent to the natural open space area and will provide pedestrian access to future hiking trails.

The circulation pattern will be simple, consisting of a single road ending in cul-de-sacs. Adequate buffering and setbacks should be provided for those lots that will be adjacent to Mt. Miguel Road. Vehicular access will be reserved for the two private lot parcels owned to the north of the LM-4 site. In addition, those lots that are adjacent to the natural open space will require fuel modification to reduce the possibility of fire damage to property. Consideration should also be given to screening the off-site views to the SDG&E substation.

- ***Residential - Medium (6-11 dwelling units per gross acre)***

The "M" residential designation will provide both detached and attached housing types. The area will provide pedestrian links to future trails in the SDG&E easement and the community park. Adequate buffering and setbacks should be provided for those lots that will be adjacent to Mt. Miguel Road and SR 125. Consideration for the SDG&E easement will be taken into account when laying out the lots and circulation system.

The "M" site will include small single family home lots, attached units such as townhomes, patiohomes, zero lot line homes, and duplexes. The provision for this housing type reinforces San Miguel Ranch's goal of providing a wide range of housing to the community.

- ***Residential - Medium High (11-18 dwelling units per gross acre)***

The "MH" residential category will be south of East H Street adjacent to Salt Creek Ranch. This area will provide a portion of the affordable housing requirement for San Miguel Ranch. This site was chosen due to its proximity to the commercial areas and

the transit system. Product types will be predominantly attached flats with detached parking areas.

- d. As a part of the review and approval process, to the extent permitted by the General Plan, an individual development may be authorized at a density higher than the maximum density established by the residential categories summarized above. The developments resulting from such increases in density shall retain the overall character of the underlying Amended Horseshoe Bend GDP classification while providing opportunities for creative site design and reducing land requirements for streets. The total number of units within San Miguel Ranch shall not exceed the mid-point of 1,394 established for the entire property by this Amended Horseshoe Bend GDP.
- e. Appropriate transitions will be provided between development areas within the project and between San Miguel Ranch and surrounding land uses. In general, the residential land located along the perimeter of the site will be graded to provide a natural transition zone from the project to the surrounding land uses and the natural open space.

## **2. Commercial**

A 14-acre regional commercial site with 120,000 to 140,000 square feet of retail space will be located at the intersection of East H Street and Mt. Miguel Road. This center is expected to attract an anchor supermarket plus ancillary retail / boutique shops.

The center will face toward East H Street and Mt. Miguel Road with the service area on the south side of the parcel. Consideration for screening should be given to the commercial area adjacent to the multi-family housing area. Consideration will be given to integrating the multi-family housing with the commercial component to provide a mixed-use approach to this development area.

## **3. School**

An elementary school site of approximately 10 net usable acres will be located within San Miguel Ranch. Site location, configuration and school facilities will meet the Chula Vista School District and State requirements. The property owner will participate in a Community Facilities District, assessment district or other financial arrangement to ensure that the school site is provided concurrent with need.

The school site will be in the south central portion of the project and will serve as an important focus for the San Miguel Ranch community.

## **4. Recreation and Trails**

Parks and park amenities shall be provided by San Miguel Ranch in accordance with Chula Vista standards. For planning purposes, the minimum standard is considered to be three acres of park land with appropriate facilities per 1,000 residents. Demographic assumptions used to determine minimum park requirements are consistent with SANDAG's figure of 2.97 persons/dwelling unit. Based on this standard and an estimated maximum population of 4,140, approximately 12.4 acres of park land is needed within San Miguel Ranch. San Miguel Ranch proposes to provide 19 acres (15 net acres) for a community park. In addition, a

comprehensive trail system is planned within the undeveloped open space that will link to the City's proposed greenbelt.

The active recreation core of San Miguel Ranch will be the 19-acre community park. This park will incorporate the activities and facilities that are most appropriate for the needs of San Miguel Ranch and the surrounding community. The proposed uses for this park are still being evaluated by City staff.

The trail systems within San Miguel Ranch will have minimal impacts in the natural open space areas. The existing trails and service roads will be used to the greatest extent feasible. Great care will be taken to locate the trail connections, within San Miguel Ranch, to adjacent regional and community trails. These include the County Regional Trail System along the Sweetwater River and the system envisioned for the adjacent Salt Creek Ranch and the City of Chula Vista greenbelt.

The proposed trail system will be designed to serve the needs of hikers and equestrian users and will include resting areas, lookouts and signage to enhance the quality of this amenity and serve the needs of a wide variety of users.

**5. *Community Services***

The 7.5-acre community services site will be located in the South Parcel at the intersection of Mt. Miguel Road and East H Street. This location was selected to service not only San Miguel Ranch but also the surrounding communities of Salt Creek Ranch and Salt Creek I. The community services site will be bordered by the natural open space area. A portion of the site will contain a large parking lot. This parking area could be used as a future park and ride facility.

**6. *Natural Open Space***

The San Miguel Ranch open space "reserve" system is an integral part of the project design and a key element of the City's Greenbelt. There will be over 2,065 acres of natural open space preserved throughout San Miguel Ranch. This preservation will provide protection for sensitive wildlife resources as well as providing a scenic open space backdrop for Bonita, the City of Chula Vista and the region.

The open space standards developed by both the City's Subarea Plan and the MSCP/NCCP Program will be considered as San Miguel Ranch is developed.



## **7. Circulation**

The San Miguel Ranch circulation system and design standards shall be consistent with the Circulation Element of the City's General Plan and with the City's street design standards, including:

### **a. SR 125**

San Miguel Ranch is situated along the path of the proposed SR 125. Caltrans has two alignments under consideration: the Proctor Valley Alignment, which is shown in the City's General Plan, and the Horseshoe Bend Alignment, which is an alternative alignment being studied by Caltrans and is shown in this document in Figure 19.

### **b. Mt. Miguel Road**

The traffic study prepared for San Miguel Ranch proposed Mt. Miguel Road as a four-lane collector. However, Emerald Properties has designed Mt. Miguel Road as a four-lane class 1 collector road to allow for landscaped medians and wider landscape parkways. Mt. Miguel Road will utilize these landscaped parkways and medians to provide a safe and attractive envelope which will allow pedestrian, bicycle and automobile movements with a minimum of conflict.

Mt. Miguel Road will provide an important link in implementing the Chula Vista Circulation Element. The proposed roadway will carry traffic to local collectors and neighborhoods in San Miguel Ranch, provide access to SR 125, and improve circulation for safety and emergency services.

### **c. East "H" Street**

East "H" Street is a designated Scenic Highway that will be a six-lane primary arterial. It crosses the site in the southeast corner of the South Parcel. East H Street will serve as a separation from the commercial site and the residential neighborhood to the natural open space and community service area and act as the primary SR 125 access point for the South Parcel and Salt Creek Ranch.

A traffic analysis shall be required to ensure that traffic levels remain within the City's approved threshold standard (defined as Level of Service "C" or better, with one a.m. peak hour and one p.m. peak hour at Level of Service "D" permitted). In the event that the traffic either by projection and analysis, or by actual count, exceeds the capacity of the transportation system, the City shall have the authority to require appropriate mitigation or cease issuance of further building permits if mitigation will not result in the appropriate level of service.

San Miguel Ranch shall be served by the City of Chula Vista's mass transit system. This service should be planned and implemented through the Director of Public Works and the Transit Coordinator.

## **8. Public Facilities**

All public facilities and services provided for San Miguel Ranch will meet or exceed the standards adopted for that service by the City of Chula Vista. The timing and phasing of infrastructure improvements will be coordinated with the plans of applicable jurisdictions and

special districts and with the timing for improvements associated with other development in the area. Applicable service requirements and threshold standards are summarized below:

**a. *Water***

San Miguel Ranch is located within the "Central Area System" service area of the Otay Water District and will be served by the District. The project will be served by the 980-711 pressure zones.

The District has prepared a Master Plan, and San Miguel Ranch is a part of that plan. At the present time, it is anticipated that a variety of facilities will be required both on and offsite to serve the project. The South Parcel can be served by connecting to the existing 980 zone along the southeast portion of San Miguel Ranch. In addition, the South Parcel will be connected to the existing Improvement District 19 main to provide looping.

A master plan for water service demonstrating the water supply availability and identifying specific line sizes and locations and off-site requirements will be prepared to the satisfaction of the District in conjunction with the review and approval process for the San Miguel Ranch SPA Plan. The Public Facilities Financing Plan will identify the timing, phasing and financing of required water facility improvements.

The water master plan will provide for use of reclaimed water within San Miguel Ranch and will evaluate opportunities for off-site use of reclaimed water generated by the project. The water master plan will identify a specific water management program for San Miguel Ranch. The water management program will include a combination of water conservation techniques (both low water use plumbing facilities and low water use landscaping and irrigation techniques) and generation and use of reclaimed water.

**b. *Drainage***

The overall project site is located within the Sweetwater River basin. The proposed development will drain to the Proctor Valley sub-basin. The stormwater drainage system proposed for San Miguel Ranch will consist of natural and improved channels, detention basins and closed conduit systems. The focus of the stormwater drainage system is the control and detention of on-site flows to predevelopment levels and erosion control. A drainage study master plan will be prepared and approved by the City Engineer in conjunction with review and approval of the San Miguel Ranch SPA Plan.

**c. *Fire and Emergency Medical Services***

San Miguel Ranch is currently within the Bonita and Sunnyside Rural Fire Protection District. With development, the project will be served by the Chula Vista Fire Department and the property will be detached from both districts. The City's Fire Master Plan anticipates provision of service to San Miguel Ranch. Properly staffed and equipped fire units will be available to respond to 85% of all emergency calls within seven (7) minutes.

The City has adopted supplemental development impact fees to ensure funding for fire protection facilities. The City's Fire Department will determine when facilities are needed to ensure that the response times are met. This determination will be made during review and approval of the San Miguel Ranch SPA Plan.

*d. Police*

Properly staffed and equipped police units will be available to respond to 84% of "Priority 1" emergency calls within seven (7) minutes and maintain an average response time to all "Priority 1" emergency calls of four and a half (4.5) minutes or less and response to 62% of "Priority Two Urgent" calls within seven (7) minutes and maintain an average response time to all "Priority 2" calls of seven (7) minutes or less. The City has adopted supplemental development impact fees to ensure funding for police protection facilities. The City's Police Department will determine when facilities are needed to ensure that the response times are met. This determination will be made during approval process of the San Miguel Ranch SPA Plan.

The Public Facilities section of the GDP conceptually outlines public facilities necessary for the future development of San Miguel Ranch. Actual sizing of lines and placement of facilities will be determined in conjunction with the review and approval process for the San Miguel Ranch SPA Plan.

The maximum number of dwelling units approved for development of San Miguel Ranch will be used in the design of public facilities to serve the area. Where individual developments are approved having densities other than the upper limits, the actual approved density will be used in determining actual facility requirements and development contributions or provisions.

In general, all public services and utilities will be designed to accommodate the ultimate loads projected by the City for the entire area. If oversizing of facilities is required, the developer will be responsible for the project's fair share cost of construction of those facilities in conformance with the City's reimbursement policies.

### *C. Landscape Concept Guidelines*

The landscape concept for San Miguel Ranch is an integral design element in establishing the project's character. The basic landscape concept will achieve the following goals:

- An informal, rural landscape theme will be established rather than a formal one.
- Undesirable views will be "softened" through screening, planting, and berming.
- Prominent natural features within San Miguel Ranch will be maintained and incorporated where feasible into the landscape.
- Transition areas from "suburban" to "rural" will be provided, and these edges will be softened through use of plant materials and contour grading.
- Fuel modification techniques for fire safety will be incorporated into the design.

Since architectural themes are likely to vary between neighborhoods, the landscape will be the "thread" that ties the community together. As each phase is implemented, landscape plans will be

submitted as part of the Grading Permit Procedures. At that time, consistency between individual projects and the Amended Horseshoe Bend GDP landscape concept will be established.

### **1. Overall Theme**

San Miguel Ranch will emphasize and maintain a quality residential development through implementation of a native or naturalized landscape theme. This theme will tie the surrounding natural open space areas to the project through the use of drought-tolerant plantings. The parkway for Mt. Miguel Road will also use the native or native-like planting theme to provide continuity and reinforce the landscape character for the project. The following items will be used to strengthen the overall theme for San Miguel Ranch:

- a. Large natural open spaces and tree masses (rather than individual trees) will be key elements of the landscape concept. Views of the housing areas will be filtered with large tree masses to maintain a rural character.
- b. The landscape theme will draw upon the prominent natural features of San Miguel Ranch to reinforce the character of the community. The existing prominent form of Mother Miguel Mountain will be preserved. Less prominent hill forms, canyons and ridges will also be preserved, enhanced and or re-contoured. These features will serve as a visual backdrop for the community and as a theme for the landscape concept. Items such as large boulders will be used throughout the project.
- c. Vegetation and landforms will be used to screen developed areas and provide view windows.
- d. Existing vegetation within San Miguel Ranch will be maintained where feasible; new landscape will complement it and enhance the coastal sage scrub and chaparral plant communities found on the site.
- e. Vegetation that is indigenous to the site will be emphasized in the landscape concept. Ornamental plantings which blend with native plantings will be utilized on a minimal basis with consideration given to low fuel and low water requirements. A "natural" approach, compatible with the surrounding environment will be a priority.
- f. Where revegetation is required at or near natural open spaces, special care will be given to the selection of plant material to complement and enhance wildlife habitat while providing fire buffer areas.
- g. The SPA plan will delineate in more detail the intended landscape concept including plant lists, materials, colors and plant sizes.

### **2. Design Guidelines**

The following design guidelines will regulate such elements as: streetscape, entries, erosion control, brush management, lighting, utilities and street furniture, signage, and walls/fencing. More detail on these guidelines will be provided in the SPA plan.

**a. Streetscape**

The intent of the landscape theme will be to create a strong landscape element linking the individual neighborhoods to the overall community design of a natural and rural landscape. The following guidelines will apply:

- Collector and local streets will “carry” the landscape concept throughout the community and provide a sense of continuity and relationship between various uses and neighborhoods within San Miguel Ranch.
- Streetscapes will feature tree masses in the parkways and allow for pedestrian connections to the adjacent uses.
- Views will be framed with landscaping to allow for distant views. Views within and out of the community will take precedence over street tree planting requirements.
- The streetscapes within the residential areas will complement the naturalistic character of the area. Formal, traditional plantings and plant materials will be avoided.
- Landscape entries including special fencing, neighborhood monumentation, vegetation, and textured paving will reinforce an open atmosphere. The plant palette will conform to “xeriscape” standards.
- Neighborhood entries will be identified through refined landscape treatment and monumentation. This will help establish the individual neighborhood character while acting as a transition point for pedestrian and vehicular circulation.
- The landscape architecture will complement the architectural theme for each neighborhood area and create a context for the community.

**b. Entries**

The entry points to the project will provide the first impression of the San Miguel Ranch community. There are two types of entries for San Miguel Ranch; major and minor. The major entries will occur at Mt. Miguel Road at the project boundaries. The minor entries are designed at the entrance to the individual residential neighborhoods. The following guidelines will apply to the project entries:

- Entries to San Miguel Ranch should “announce entry,” and immediately set the theme and character of the community. Entry points will be intensely planted, with materials which will be carried out throughout San Miguel Ranch on streets and into each neighborhood.
- The character and concept of entry monument signs will provide an initial impression of the image of the community. The scale, form and materials of the monument will be in keeping with the residential nature of the community.

- Monumentation, accent planting and the use of specimen trees that are compatible with the surrounding landscape will be used to generate interest at the project entry points.
- The SPA plan will delineate in more detail the intended entry concept including plant lists, materials, colors and plant sizes.

**c. *Erosion Control***

Erosion control will be required for all graded areas. All graded slope areas will emphasize the use of drought tolerant, informal massing of plant material. The compatibility of this plant material will consider the existing surrounding setting. The following guidelines will be incorporated into a future erosion control plan.

- Slopes adjacent to the natural open space areas will be landform graded and blend with the adjacent contours.
- Slopes adjacent to native areas will utilize temporary irrigation.
- Most cut slopes should be serrated to aid in plant revegetation and help retard erosion.

**d. *Fuel Modification***

Fuel modification zones to minimize a fire hazard will be necessary in development areas adjacent to the natural open space. These will be provided at the SPA level. The following guidelines for fuel modification will apply:

- The fuel modification program will provide a set of minimum standards which will preserve, protect and safeguard human lives, property and natural habitat.
- Fuel modification in the North Parcel will be of particular concern. Minimum distances from building sites needed for fuel modification should be established including a "wet zone" of irrigated vegetation immediately adjacent to the structure.
- In order to achieve a natural transition from native to brush-cleared zones, a program of graduated selective thinning should be established to avoid harsh "lines" of clearing on the hillsides.
- Private access roads which pass through areas of native brush will be maintained with a minimum 15-foot clearance on either side.
- Once fuel modification treatment has been completed for protection of a given area or structure, this land should be maintained permanently in a condition consistent with the City adopted Fuel Modification Plan, subject to periodic review or inspection by the City Fire Marshall.

***e. Lighting***

Lighting is one of the key design elements for any community. Proper lighting will provide directional finding, accent illumination and provide night-time safety for vehicles and pedestrians. The following guidelines for lighting will apply:

- The community lighting system will adequately illuminate and provide a safe vehicle and pedestrian movement environment.
- In the residential neighborhoods, parks, community services and retail centers, the following lighting designs and concepts will be followed:
  - Light fixtures should be pedestrian in scale and be integrated with the architectural character.
  - Parking lot lighting will not “spill over” into residential areas.

***f. Utilities and Street Furniture***

Utilities and street furniture can add or detract from a community’s appearance. The following guidelines will assure that both will have a positive impact on San Miguel Ranch:

- Utility fixtures will be located to reduce their visual impact in the community.
- Low profile and attractive fixtures or enclosures will be used.
- Proposed utilities will be located underground.
- Street furniture, such as bus/transit benches and trash receptacles, will be selected for visual attractiveness, uniformity and compatibility with adjacent architecture.

***g. Signing***

Signage is critical in identifying and providing direction through a community. The following guidelines will apply to San Miguel Ranch.

- Sign size, quantity, and locations within the community will be coordinated to provide project unity and a clear identity for San Miguel Ranch. This system would affect all signs including:
  - community entry signs located at certain primary and secondary intersections,
  - residential neighborhood identification signs, and
  - commercial identification signs.

- Street signs and community directional signs will be harmonious with the character and image of the residential community in terms of size, color and materials.
- The community sign system will be coordinated with graphics of the community development in order to achieve design continuity.
- All signs will be designed and located in a manner which does not disturb the scenic values of the community.
- Directional signs will be designed in such a manner as to provide information in a symbolic format whenever possible.

***h. Fencing/Project Walls***

Fencing and project walls will be an important design feature for unifying and identifying San Miguel Ranch. Fences and walls will be seen from outside and inside the project and one of the first elements that help establish the quality of the project. The following are the design guidelines for fences and project walls.

- The material, style, and height of walls will be consistent throughout the community in order to ensure visual consistency and will be of a type that would reflect and enhance the natural character of the area.
- Fences along park and open space edges will be “open” to views.
- Construction materials for walls will be consistent with the project architecture and wall coloring will utilize earth tones.
- Continuous walls will be softened by plant materials and long linear walls will be staggered horizontally or utilize curvilinear forms to provide interest.

***D. Grading and Landform Alteration Guidelines***

Due to the existing conditions at San Miguel Ranch, grading and landform alteration guidelines are one of the most important elements of the Amended Horseshoe Bend GDP. All grading will be subject to the requirements of the Chula Vista Municipal Code, subject to approval of the grading plan. The following are guidelines for grading and landform alterations for San Miguel Ranch.

- The limits of grading will generally be defined by the Conceptual Grading Plan as illustrated in Figure 16.
- Visually prominent slopes and vista points will be preserved to the maximum extent feasible.
- Introduction of manufactured slopes in areas designated as open space will be minimized except where necessary to construct roads, trails and other public facilities. Introduction of manufactured slopes in open space will not occur in areas of environmental sensitivity.



Manufactured slopes in areas designated for open space will be revegetated with indigenous species.

- Grading may extend beyond the boundaries of an approved development area where necessary to implement the proposed development or construct roadways or other public facilities. The anticipated limits of grading will be established in conjunction with review and approval of plans for each individual development. However, they will generally conform to those limits illustrated in Figure 16.
- The overall project grading will be a balanced cut and fill.
- All grading will conform to the Chula Vista Hillside Grading Manual and other applicable ordinances (Section 7.7 of the General Plan).
- Grading will emphasize scenic vistas of the Sweetwater Reservoir and other scenic areas.
- All development areas and lots will be designed so that surface drainage will be directed to street frontages, approved natural water courses, or improved easements with a minimum of control devices.
- The maximum gradient for any fill slopes and most cut slopes will exceed 2:1.
- All graded slopes will be planted in a timely manner using plant materials that will stabilize the slopes, minimize erosion and minimize water use.
- Trees and shrubs on graded slopes will be used to soften the visual appearance.
- Drainage protection devices will be of natural materials rather than soil cements or similar methods.
- On-site detention basins will be utilized to minimize downstream runoff.
- Landform grading techniques will be used to follow natural landforms and to naturalize any visible edges.
- The gradient of manufactured slopes will be varied.
- Daylight cuts on the perimeter and visible edges will be maximized, while minimizing any exterior fill slopes.
- All transitions to natural areas will be rounded and molded to fit existing terrain.
- Significant rock outcroppings will be retained by integrating them with the development.
- Curvilinear streets will be utilized to soften development in areas of rough topography.
- Building setbacks will vary from rear and side lot lines to soften development edges.

## ***VI General Plan Conformance***

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### ***A. Request for General Plan Amendment***

The General Plan currently identifies essentially one residential designation for San Miguel Ranch. The North Parcel is designated as Residential Low (0-3 du/acre), and the South Parcel is designated as Residential Low (0-3 du/acre) with the exception of a 20-acre parcel designated Residential Low-Medium (3-6 du/acre). In March 1993, the City approved a General Development Plan for San Miguel Ranch which allowed up to 1,619 dwelling units (357 estate lots in the North Parcel and 1,262 residential lots in the South Parcel). These land use designations and density ranges would allow a range of 470 to 2,836 dwelling units on San Miguel Ranch. The approved GDP for San Miguel Ranch fell within the City's "midpoint" density at 1,619 units.

A General Plan Amendment (GPA) is being requested for the South Parcel of San Miguel Ranch. The proposed GPA will apply to the Land Use Element of the City's General Plan. There are two primary reasons supporting the proposed GPA request.

First, San Miguel Ranch has been redesigned based upon a comprehensive site analysis and a jointly prepared statement of goals and objectives. This analysis revealed that the General Plan's identification of essentially one residential land use designation ("Low") did not create the flexibility needed to develop a balanced and integrated 2,590-acre planned community. In addition, the General Plan does not provide the appropriate residential land uses adjacent to or in view of:

- The Horseshoe Bend Alignment for SR 125;
- The SDG&E easements; and
- The off-site SDG&E Substation and associated transmission lines.

The second reason for the requested GPA relates to the local, state and federal efforts to preserve covered species and their habitat in the context of the San Diego-area MSCP/NCCP Program. Under both the City's Subarea Plan and the MSCP/NCCP Program, the North Parcel of San Miguel Ranch is contemplated for acquisition, protection and inclusion in the preserve area of the City's Subarea Plan. The USFWS, the CDFG and Emerald Properties have entered into an agreement to retain the entire North Parcel, and a portion of the South Parcel, as a permanent ecological reserve; however, the Agreement is conditioned upon certain assurances, acknowledgments and agreements to be obtained from the USFWS, the CDFG and the City. The assurances, set forth in the City's Subarea Plan, include, among others, City Council approval of a GPA and a GDP Amendment, which would change the land use designations on the South Parcel to allow greater flexibility in project design to achieve the open space and resource protection objectives of the MSCP/NCCP.

Specifically, a GPA/GDP Amendment is needed to allow 1,394 residential units on the South Parcel of San Miguel Ranch. In this way, the landowner is able to partially recover the value lost by not pursuing further development entitlements on the North Parcel through a redesign of the

South Parcel, and preserve acquisition and conservation banking on the North Parcel. The approach is consistent with the City's Subarea Plan, which acknowledges that:

1. "[T]he draft MSCP provisions call for General Plan Amendments, cluster zoning, lot averaging, transferring of development rights and other methods for allowing flexibility in project design to achieve the open space and resource protection objectives of the MSCP Plan;" and
2. "[T]he preservation of the Northern Parcel constitutes a significant and extraordinary benefit to the residents of the City and the region, and . . . preservation of a portion of the Northern Parcel may not otherwise occur through the development exaction process."

If approved, the proposed GPA will create a high-quality residential community consistent with the primary goals of the City's General Plan.

- A wider variety of housing opportunities will be possible for San Miguel Ranch by providing four residential land use designations. Within these designations, San Miguel Ranch will serve a broader balance of the housing market in the City, taking into consideration a variety of lifestyles, ages and income groups.
- The redesign of San Miguel Ranch will also provide for an orderly transition from smaller residential lots in the southeast, adjacent to Salt Creek Ranch, to larger residential lots in the northwest by the Bonita community.
- San Miguel Ranch will contribute significantly to the preservation of sensitive lands and natural resources by devoting over 80 percent of the project site (including the entire North Parcel) to a permanent ecological reserve. This commitment is well in excess of the open space shown in the General Plan.
- Setting aside over 80 percent of the project site will also ensure that the preserve area for San Miguel Ranch in the City's Subarea Plan will meet the biological resource objectives of the MSCP/NCCP Program.
- In short, the proposed GPA will allow flexibility in the design of a land use plan that will achieve the housing; the SR 125 right-of-way requirements; and the open space and resource protection objectives of the USFWS, the CDFG, the City and the landowner.

### *B. General Plan Analysis*

This section describes the conformance of the project with the Chula Vista General Plan. The City's General Plan includes San Miguel Ranch within its boundaries. In addition, as part of the City's annexation efforts, San Miguel Ranch was identified as a part of the City's Eastern Territories Plan. This section discusses the project's proposed relationship to the following Elements of the City's General Plan: Land Use, Circulation, Public Facilities, Parks and Recreation, Conservation/Open Space, Housing, Safety and Noise. This section also discusses the proposed project's consistency with the City's Growth Management Plan. Specific phasing and

implementation strategies will be discussed in further detail in the San Miguel Ranch SPA Plan and the Public Facilities Financing Plan (PPFP).

### **1. Land Use Element**

The Amended Horseshoe Bend GDP was developed as an alternate land use plan in response to the Horseshoe Bend Alignment for SR 125. The Amended Horseshoe Bend GDP will augment the City's General Plan by providing more detailed information regarding development of San Miguel Ranch if the Horseshoe Bend Alignment for SR 125 is selected.

The City's Proposed General Plan (Figure 5) designates the South Parcel as Residential Low (0-3 du/acre) west of SR 125 and Residential Low-Medium (3-6 du/acre) for the area east of SR 125 except for 7.8 acres designated as Medium High (11-18 du/acre) in the southeast portion of the site. By applying these land use designations and density ranges to the Proposed General Plan, it would allow for a range of 739 to 1,928 dwelling units on San Miguel Ranch with a "midpoint" of 1,394 dwelling units (Table 3).

The Amended Proctor Valley GDP does not propose any development on the North Parcel and a wider variety of residential categories for the South Parcel including: Low (0-3 du/acre), Low Medium (3-6 du/acre), Medium (6-11 du/acre) and Medium High (11-18 du/acre) along with Open Space. When applying these residential categories together for both parcels it would allow a range of 1,054 to 2,274 dwelling units. The Amended Proctor Valley GDP proposes 1,394 dwelling units which is under the "midpoint" of 1,698 dwelling units (Table 4) but consistent with the "midpoint" of the proposed General Plan.

The Horseshoe Bend Amended GDP will preserve over 80 percent of the project for open space as part of the MSCP/NCCP Program. As part of this preservation, the natural landform in the North Parcel will be retained. The eastern portion of the South Parcel will remain as natural open space, preserving the ridgeline and prominent rock outcroppings as well as the sensitive habitat located in that area. The remaining portion of Horseshoe Bend (that part not disturbed by the SR 125 alignment) will also be preserved as part of the natural open space in the western portion of the South Parcel adjacent to the Low and Low Medium development areas of the project.

The preservation of over 2,065 acres in open space will provide an aggregation of open space that is unprecedented in the City of Chula Vista. The average gross density over the entire project is 0.54 dwelling units per acre. The open space will be used by the residents of San Miguel Ranch, the surrounding communities, and all of the citizens of Chula Vista. The plan also provides a nineteen (19) acre community park that is connected to the City's open space, trails and greenbelt systems. Through the use of trails, parks, natural open space and the organization of its land uses San Miguel Ranch provides for a highly livable project.

The General Plan also includes a variety of site planning criteria to encourage development of well-planned and integrated residential communities. This includes the specific siting of the elementary school and the community park. The location for these two facilities were discussed and approved in advance by the school district and the City's Park and Recreation Department.

In addition to the site planning criteria included in the General Plan, Chula Vista's processing requirements include comprehensive design review of projects to ensure that those projects implement the criteria called for in the General Plan. Applicable site planning criteria include:

- Compatibility with surrounding land uses;
- Sensitivity to the physical characteristics of the site (landforms, viewsheds, sensitive habitats);
- Provision of a variety of housing types;
- Provision of open space and recreation opportunities; and
- Provision of community facilities.

Chula Vista uses these criteria to help determine the density range which will be applied to individual projects. Projects proposing densities from the mid-range to the higher end must demonstrate consistency with these site planning criteria; and those projects proposing densities at the highest end of the range must demonstrate provision of exceptional or extraordinary benefits to the City of Chula Vista.

San Miguel Ranch is proposing to be above the mid-range of the residential density range of the City's Proposed General Plan Amendment, but still demonstrate consistency with all of the City's site planning criteria. A summary of the relationship of the Amended Horseshoe Bend GDP to the site planning criteria in the General Plan is discussed in further detail below.

*a. Compatibility with Surrounding Land Uses*

San Miguel Ranch has been designed to make a logical transition from the estate lots of Bonita. The Bonita lots adjacent to the northwest portion of the project are one-acre or more in size. San Miguel Ranch is proposing large single family lots in the South Parcel adjacent to this community. The project also provides for multiple residential land uses adjacent to the Horseshoe Bend Alignment for SR 125. This allows for a variety of housing that is compatible to proposed SR 125.

San Miguel Ranch is also proposing higher density residential land use categories in the south and southeast of the project. This will reflect, and be consistent with, the existing adjacent development of Salt Creek I, which is designated Residential Medium (project densities of 7.5 to 20 du/acre) and the approved, but not yet constructed, Salt Creek Ranch, which is designated Residential Medium and Low Medium (project densities of 3 to 11 du/acre).

Regional open space systems have been considered in the design of San Miguel Ranch. The open space and trails make up a portion of the City's greenbelt and also link to the open space corridors of Salt Creek Ranch. Extensive natural open space will be preserved in both the North and South Parcels and will provide continuous open space corridors from Otay Lakes to Sweetwater Reservoir.

**b. *Sensitivity to Physical Characteristics of the Site***

The project design has benefited from the issues identified in the site analysis and the goals and objectives established for San Miguel Ranch. The vast majority of slopes with gradients in excess of 25% will be preserved. (See Conceptual Grading Plan Figure 16.) However, the existing Horseshoe Bend landform will be substantially altered if Caltrans selects the Horseshoe Bend Alignment for SR 125 in the South Parcel. Besides the grading associated with the alternate alignment of SR 125 (which will be completed by Caltrans, not the applicant) the Amended Horseshoe Bend GDP preserves more natural open space and proposes less grading than was approved in the previously adopted GDP.

Vista points and viewsheds have been identified on the Site Analysis Summary (Figure 13). Trail access will be provided to key vista points as illustrated on the Open Space/Trails Concept Plan (Figures 17 and 18). Views of Sweetwater Reservoir, Pacific Ocean, Otay Reservoir, and the surrounding area will be available from open space areas in the North and South Parcels of the property. Panoramic views of the mountains to the east will be available from several areas in the eastern portion of the South Parcel which will be retained as open space.

Biological considerations also influenced the amended land use plan, particularly the design of the open space system. As mentioned previously, all of the North Parcel and portions of the South Parcel have been retained in natural open space to preserve coastal sage scrub, California gnatcatchers, Otay Tarplant, Cactus Wrens, and other sensitive species and their habitat. The project will also provide a link to potential future open space areas in the region. The project will preserve more acres of coastal sage scrub than is proposed for San Miguel Ranch in the City's General Plan.

**c. *Provision of a Variety of Housing Types***

The current General Plan for San Miguel Ranch identifies the entire residential portion of the property with one residential designation ("L"), except for a 20 acre parcel that is designated "LM" located at the extreme southeast corner of the South Parcel. The Amended Horseshoe Bend GDP provides four residential designations:

- Low
- Low Medium
- Medium
- Medium High

Within these designations, a wide variety of housing opportunities will be possible for San Miguel Ranch. This variety will allow flexibility for housing types adjacent to the right-of-way for SR 125 and will also serve a broader balance of the housing market, taking into consideration a variety of lifestyles, ages and income groups. The development concept provides for an orderly transition from higher density housing in the southeast, adjacent to Salt Creek Ranch, to lower density housing in the northwest adjacent to Bonita. The land use plan also allows for a greater mix of housing types near the SR 125 corridor which could not have been feasible under the approved GDP with only the "L" category.

**d. *Provision of Open Space and Recreation Opportunities***

Provision of open space and outdoor recreation opportunities is a primary feature of San Miguel Ranch. San Miguel Ranch will contribute significantly to local, state and federal conservation efforts by preserving, where possible, large land areas that possess important biological value, significant landforms and other unique resources. The focal point will be the enhancement of open space within San Miguel Ranch by devoting over 2,065 acres, or 80 percent, to permanent open space consistent with the City's Subarea Plan and the MSCP/NCCP Program.

Open space amenities incorporated in the project include more natural open space than is currently provided under the General Plan. Open space corridors and trails that traverse the South Parcel will connect to the open space trail system. These amenities will contribute to establishing San Miguel Ranch as a quality residential community with a focus on parks, recreation and open space.

**e. *Provision of Community Facilities***

In addition to park and open space facilities, a variety of community facilities will be incorporated into San Miguel Ranch, including:

- ***A School Site***

The current General Plan identifies one elementary school for the San Miguel Ranch area. The Amended Proctor Valley GDP provides an elementary school site of approximately 10 net acres and is located. Specific site location of these facilities were agreed to in advance with the school district.

- ***A Community Purpose Facility Site***

No community purpose facility sites are identified in the City's General Plan. However, the Amended Horseshoe Bend GDP allows for over 7.5 acres for future community purpose facilities, which include religious as well as social service land uses.

- ***A Retail Commercial Site***

A retail site is identified in the City's General Plan. San Miguel Ranch will provide approximately 14 acres for commercial uses that will serve both San Miguel Ranch and the surrounding communities.

**f. *Eastern Territories***

The General Plan also includes an Eastern Territories Area Plan. The following planning proposals are relevant to San Miguel Ranch:

- The Area Plan places high priority on preservation and improvement of sections of the Chula Vista greenbelt, including Mother Miguel Mountain and areas adjacent to Sweetwater Reservoir.
- The Area Plan calls for development of the Eastern Territories to create a balanced community of residential, commercial and industrial uses.

- The Area Plan calls for a park, linked by trails to other parks, to be located in the northern portion of San Miguel Ranch.
- The Area Plan calls for creation of a well-designed land use transition between the residential uses of San Miguel Ranch and Sweetwater Reservoir.

The Amended Horseshoe Bend GDP conforms with the planning and design proposals included in the Eastern Territories Area Plan for San Miguel Ranch, including:

- all on-site portions of the City's greenbelt;
- a 19 acre (15 net acres) community park near the greenbelt corridor;
- a sensitive land use transition between San Miguel Ranch and Bonita;
- provision of open space surrounding Sweetwater Reservoir and control of urban runoff to ensure maintenance of the existing water quality within Sweetwater Reservoir.

## **2. *Circulation Element***

The Circulation Element calls for development of several roadways in San Miguel Ranch. The circulation plan for San Miguel Ranch is consistent with the City's General Plan in all aspects except for the location/alignment for SR 125. If the City selects the Horseshoe Bend alignment, a Circulation Amendment will be required to reflect the location of the final SR 125 alignment. All roads proposed within San Miguel Ranch have been assigned classifications consistent with the General Plan's Circulation Element, including:

- the extension of East H Street as a six lane prime arterial from the western boundary of Salt Creek Ranch to Mt. Miguel Road;
- the extension of Mt. Miguel Road as a four lane class one collector to the north and ultimate connection to SR 125 and Proctor Valley Road to the west;
- the provision of the right-of-way for the proposed SR 125. However, the General Plan does not currently show the Horseshoe Bend Alignment in this location. If the City selects the Horseshoe Bend Alignment, the City must update the current General Plan.

The project will provide for the extension of East H Street and Mt. San Miguel Road as shown on the Circulation Element of the City's General Plan. Access will be provided to adjoining properties, including Salt Creek Ranch and the property north of the South Parcel.

In addition to provisions for vehicular circulation, an extensive bike and pedestrian system is proposed. The Circulation Element identifies bicycle lanes along East H Street and on Mt. Miguel Road, and a local collector transit route along East H Street. These features will be provided as part of San Miguel Ranch.



All circulation elements, including roads, bikeways and transit routes within San Miguel Ranch have been assigned classifications consistent with or greater than the General Plan's Circulation Element.

Phasing of development and road improvements will be timed to ensure compliance with the City's threshold standards. A transportation phasing plan will be incorporated into the San Miguel Ranch SPA Plan. The transportation phasing plan will be coordinated with the City's Growth Management Plan.

**3. *Public Facilities Element***

The Public Facilities Element contains guidelines for the development of water, sewer and drainage facilities within Chula Vista. Master plans for these elements have yet to be prepared for the Eastern Territories. Planning will occur in conjunction with other development proposals.

The Amended Horseshoe Bend GDP requires that master plans for the provision of water and sewer facilities be prepared and approved in conjunction with the San Miguel Ranch SPA Plan. The water master plan will be prepared to the satisfaction of the Otay Water District and the sewer master plan will be prepared to the satisfaction of the City of Chula Vista. The Amended Horseshoe Bend GDP calls for development of drainage plans to the satisfaction of the City of Chula Vista and requires sensitivity to the Sweetwater Reservoir drainage basin.

**4. *Housing Element***

The Housing Element establishes goals for the provision of diverse housing types, including affordable housing. San Miguel Ranch provides four different residential land use designations ranging from Low, Low Medium, Medium, and High. The project will also provide affordable housing to conform to the needs identified in the General Plan.

**5. *Conservation / Open Space Element***

The stated goals of the Conservation/Open Space Element are to provide for the judicious management of Chula Vista's natural resources and to promote land uses which minimize development impacts on natural resources. The Element also calls for the preservation of open space for outdoor recreation and education and to enhance community identity.

The Amended Horseshoe Bend GDP incorporates open space features that are consistent with open space features of the Eastern Territories Area Plan. Open space amenities are a key component of San Miguel Ranch which will enhance the character of the community. Over 2,065 acres of the project will be preserved as undisturbed open space, including the entire North Parcel. The natural open space areas are of sufficient size to preserve habitat diversity. Access to the open space will be limited to hiking trails to encourage preservation of resources.

**6. *Parks and Recreation Element***

The City-wide park system envisioned in the Park and Recreation Element is a hierarchy of public park features including the Chula Vista greenbelt, regional parks, community parks and neighborhood parks. The Park and Recreation Element establishes a standard of 3 acres of developed local parks per 1,000 residents. The City's General Plan identifies a community park within San Miguel Ranch.

The Amended Proctor Valley GDP requires that parks within San Miguel Ranch be developed in accordance with the City's design standards. The Amended Proctor Valley GDP calls for San Miguel Ranch to provide approximately 34 acres of park uses. This will allow for the development of a community park and for trails in easements linking to open space areas.

**7. *Safety Element***

The Safety Element identifies potential seismic safety and fire hazards and requires that development occur consistent with state-of-the-art safety practices. No geologic hazards have been identified for San Miguel Ranch although all future development plans will conform with the recommendations of a qualified engineering geologist. The Amended Horseshoe Bend GDP includes general guidelines for brush management to improve fire safety. The SPA Plan will include specific fuel modification guidelines for fire protection.

**8. *Noise Element***

The Noise Element requires that the City enforce noise regulations which recognize the right of every citizen to live in an environment where noise is not detrimental to life, health, or enjoyment of property. Potential noise impacts from the proposed SR 125 will be evaluated and appropriate mitigation will be applied, if necessary. Additional noise issues will be identified during the environmental review of the Amended Horseshoe Bend GDP and the San Miguel Ranch SPA Plan. Mitigation measures will be implemented by the property owner as required.

**Table 3: Residential "Midpoint" Analysis Based on the Proposed General Plan Amendment**

<b>Proposed General Plan Amendment "Midpoint" Residential Analysis</b>					
Symbol	Land Use	Acres	Units Allowed		
			Minimum	Midpoint	Maximum
<b>South Parcel</b>					
L	Low (.5 - 3 DU/Acre)	241.1	121	482	723
LM	Low Med.(3 - 6 DU/Acre)	177.4	532	799	1,064
MH	Med. High (11-18 DU/Acre)	7.8	86	113	140
South Parcel Residential Total		426.3	739	1,394	1,928
Average Gross Density over 738.2 Acres (South Parcel Only)			1.00 du/ac	1.89 du/ac	2.61 du/ac
<b>North Parcel</b>					
OS	Open Space	1,852.0	0	0	0
Entire Approved General Plan		939.5	739	1,394	1,928
Average Gross Density Over 2,590.2 Acres (Entire Project)			0.29 du/ac	0.54 du/ac	0.74 du/ac

**Table 4: Amended Horseshoe Bend General Development Plan "Midpoint" Analysis**

<b>Amended Horseshoe Bend GDP Residential "Midpoint" Analysis</b>						
Symbol	Land Use	Acres	Units Allowed			
			Minimum	Midpoint	Maximum	Proposed*
<b>South Parcel</b>						
L	Low (.5 - 3 DU/Acre)	132.3	66	265	397	184
LM	Low Med. (3 - 6 DU/Acre)	165.8	497	746	995	624
M	Medium (6-11 DU/Acre)	67.5	405	574	742	473
MH	Med. High (11- 18 DU/Acre)	7.8	86	113	140	113
South Parcel Residential Total		373.4	1054	1698	2,274	1,394
Avg. Gross Density Over 738.2 Acres (South Parcel Only)			1.43 du/ac	2.30 du/ac	3.08 du/ac	1.88 du/ac
<b>North Parcel</b>						
OS	Open Space	1,852.0	0	0	0	0
Entire Project		2,590.2	1,054	1,698	2,274	1,394
Average Gross Density Over 2,590.2 Acres (Entire Project)			0.41 du/ac	0.66 du/ac	0.88 du/ac	0.54 du/ac

\* This is maximum units only.

GDP Midpoint Density Assumptions:

L 2.0 du/ac                      MH 14.5 du/ac  
 LM 4.5 du/ac                    H 22.0 du/ac  
 M 8.5 du/ac

## ***VII Implementation***

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### ***A. Phasing***

The Amended Horseshoe Bend GDP will ensure that development will occur in an orderly fashion and that public facilities are provided concurrent with need, and at the same time provide flexibility to allow the property owner to respond to changing market conditions. The conceptual phasing information presented in this section has been developed primarily for the purposes of determining preliminary circulation and public facility requirements. Actual development may or may not occur in the sequence described below. Actual phasing will be concurrent with the provision of public facilities and will be in accordance with the threshold standards established by the City of Chula Vista.

The conceptual phasing plan assumes that development within San Miguel Ranch will extend over a period of approximately seven years averaging 200 units per year. It is anticipated that development within San Miguel Ranch will begin at the eastern portion of the South Parcel. Later stages of development will extend to the west and north simultaneously. All development will occur in the South Parcel. It is anticipated that three or more product types will be available during each phase to provide appeal to a wider range of the market. Individual phases will provide for "in-tract" infrastructure and public facilities as well as any off-site infrastructure required by cumulative project development.

### ***B. Community Facilities***

Specific community facility requirements will be identified in the San Miguel Ranch SPA Plan. However, the following initial standards have been established for San Miguel Ranch:

#### ***1. Circulation***

Development within San Miguel Ranch shall comply with the City's Level of Service C requirement for the operation of circulation element roads. A transportation phasing plan, consistent with the City's Growth Management Element, shall be incorporated into the San Miguel Ranch SPA Plan to ensure that level of service standards are met.

#### ***2. Water***

A detailed water master plan shall be prepared in conjunction with the San Miguel Ranch SPA Plan. The water master plan shall be subject to review and approval by the Otay Water District.

#### ***3. Sewer***

A detailed sewer master plan shall be prepared in conjunction with the San Miguel Ranch SPA Plan. The sewer master plan shall include consideration of reclaimed water and be subject to review and approval by the City of Chula Vista.

**4. *Drainage***

A conceptual drainage plan shall be included in the San Miguel Ranch SPA Plan. Drainage plans shall be prepared to the satisfaction of the City Engineer.

**5. *Fire and Police***

The San Miguel Ranch SPA Plan shall define specific facility requirements for fire and police protection to the satisfaction of the Chula Vista Police and Fire Departments. Funding will be provided by participation in the supplemental Development Impact Fees adopted by the City. In conjunction with provision of fire service by the Chula Vista Fire Department, the property shall be detached from the Bonita-Sunnyside and Rural Fire Protection District.

**6. *Schools***

School facility requirements shall be defined in the San Miguel Ranch SPA Plan to the satisfaction of the Chula Vista School District and the Sweetwater Union High School District.

**7. *Open Space***

Open space areas delineated on this Amended Horseshoe Bend GDP and subsequent SPA Plan shall be owned and maintained by an entity or entities approved by the City Council as determined during the review and approval process for the San Miguel Ranch SPA Plan. These may include the Chula Vista Park and Recreation Department, an open space maintenance district, private trust or any other entities acceptable to the City of Chula Vista.

***Development Agreement***

A development agreement or some other mechanism acceptable to both the City and the property owner may be requested to implement the Amended Horseshoe Bend GDP, the SPA Plan and the tentative maps.

***Subsequent Review***

Subsequent review shall consist of review and approval of the SPA Plan and future tentative maps. A Public Facilities Financing Plan shall be prepared and processed concurrently with the SPA Plan. The SPA Plan shall be the primary zoning and design document guiding development of the property and shall include detailed urban design and site plan criteria and identification of specific community facility requirements. Specific criteria included in the SPA Plan will guide the review of future development plans. Development plans for individual projects shall be subject to the City of Chula Vista's procedures for design review.

**SAN MIGUEL RANCH**

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*Sectional Planning Area Plan*

**Volume 1**  
**SPA Plan**

***Project Applicant:***

Trimark Pacific San Miguel, LLC

***Prepared By:***

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**October 19, 1999**

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***San Miguel Ranch SPA Plan***  
***Volume 1***  
***SPA Plan***

***TABLE of CONTENTS***

<b><i>CHAPTER/SECTION</i></b>	<b><i>PAGE</i></b>
1 0 RECORD OF AMENDMENTS .....	1A
Chapter I INTRODUCTION .....	1
1.1 Background, Scope and Purpose of the Plan .....	1
1.2 SPA Plan Document Organization .....	4
1.3 Location and Regional Setting .....	6
1.4 Project Vision and Community Structure .....	10
1.5 Legal Significance/EIR .....	13
1.6 Conformance with the GDP .....	13
1.6.1 Land Use Element .....	14
1.6.2 Circulation Element .....	15
1.6.3 Public Facilities (Community Purpose Facility) .....	15
1.6.4 Housing Element .....	17
1.6.5 Conservation/Open Space Element .....	17
1.6.6 Parks and Recreation Element .....	17
1.6.7 Safety Element .....	17
1.6.8 Noise Element .....	17
1.6.9 Conformance with GDP Conditions of Approval .....	18
1.7 Other Related Documents .....	21
Chapter II DEVELOPMENT CONCEPT .....	23
2.1 Design Influences .....	23
2.1.1 Site Characteristics and Visual Context .....	23
2.1.2 Surrounding Land Uses .....	23
2.1.3 Community Character .....	24
2.2 Land Use Patterns .....	24
2.2.1 Statistical Summary - Land Use Table .....	25
2.3 Density Transfer .....	26
2.4 Housing Programs .....	30
Chapter III CIRCULATION .....	31
3.1 Introduction .....	31
3.2 Existing Circulation Network .....	31
3.2.1 Regional Access .....	31
3.2.2 Project or Local Access .....	31
3.3 Proposed Circulation Network .....	32



**TABLE of CONTENTS**  
(Continued)

<b>CHAPTER/SECTION</b>	<b>PAGE</b>
3.4 Street Standards .....	35
3.5 Phasing of Road Improvements .....	36
3.6 Transit Planning Principles .....	48
3.7 Bicycle Routes .....	51
3.8 Pedestrian Circulation/Trails .....	51
 Chapter IV GRADING .....	 53
4.1 Introduction .....	53
4.2 Grading Concept .....	53
4.3 Grading Requirements .....	57
4.3.1 Landform Grading .....	57
4.3.2 Limits of Grading .....	61
4.3.3 Grading Quantities .....	62
4.3.4 Erosion Control .....	63
4.3.5 Drainage Design .....	63
4.3.6 Roadways .....	63
4.3.7 Soils Reports .....	64
4.3.8 Grading Review .....	64
 Chapter V OPEN SPACE, TRAILS AND PARKS .....	 65
5.1 Introduction .....	65
5.2 Open Space / Natural Habitat .....	65
5.3 Trails .....	66
5.4 Required Park Land and Improvements .....	75
5.5 Park and Open Space Implementation .....	76
5.6 Parkland Acquisition and Development Compliance .....	76
 Chapter VI DEVELOPMENT PHASING .....	 77
6.1 Project Phasing .....	77
6.2 Provision of Public Facilities .....	77
 Chapter VII PUBLIC FACILITIES .....	 81
7.1 Introduction .....	81
7.2 Water Service .....	81
7.2.1 Design Criteria and Projected Water Demands .....	81
7.2.2 Existing Potable Water Facilities .....	84
7.2.3 Recommended Potable Water Facilities .....	87
7.2.4 Existing Recycled Water Facilities .....	88
7.2.5 Recommended Recycled Water Facilities .....	88
7.3 Water Conservation Plan .....	91

**TABLE of CONTENTS**  
(Continued)

<b>CHAPTER/SECTION</b>	<b>PAGE</b>
3.4 Street Standards .....	35
3.5 Phasing of Road Improvements .....	36
3.6 Transit Planning Principles .....	48
3.7 Bicycle Routes .....	51
3.8 Pedestrian Circulation/Trails .....	51
 Chapter IV GRADING .....	 53
4.1 Introduction .....	53
4.2 Grading Concept .....	53
4.3 Grading Requirements .....	57
4.3.1 Landform Grading .....	57
4.3.2 Limits of Grading .....	61
4.3.3 Grading Quantities .....	62
4.3.4 Erosion Control .....	63
4.3.5 Drainage Design .....	63
4.3.6 Roadways .....	63
4.3.7 Soils Reports .....	64
4.3.8 Grading Review .....	64
 Chapter V OPEN SPACE, TRAILS AND PARKS .....	 65
5.1 Introduction .....	65
5.2 Open Space / Natural Habitat .....	65
5.3 Trails .....	66
5.4 Required Park Land and Improvements .....	75
5.5 Park and Open Space Implementation .....	76
5.6 Parkland Acquisition and Development Compliance .....	76
 Chapter VI DEVELOPMENT PHASING .....	 77
6.1 Project Phasing .....	77
6.2 Provision of Public Facilities .....	77
 Chapter VII PUBLIC FACILITIES .....	 81
7.1 Introduction .....	81
7.2 Water Service .....	81
7.2.1 Design Criteria and Projected Water Demands .....	81
7.2.2 Existing Potable Water Facilities .....	84
7.2.3 Recommended Potable Water Facilities .....	87
7.2.4 Existing Recycled Water Facilities .....	88
7.2.5 Recommended Recycled Water Facilities .....	88
7.3 Water Conservation Plan .....	91

**TABLE of CONTENTS**  
(Continued)

<b>CHAPTER/SECTION</b>	<b>PAGE</b>
7.4 Sewer Service .....	93
7.4.1 Design Criteria and Sewage Flow Projections .....	94
7.4.2 Existing Sewer Facilities .....	95
7.4.3 Recommended Sewer Facilities .....	96
7.5 Storm Drainage System .....	99
7.6 Urban Runoff .....	103
7.7 Roads .....	103
7.8 Schools .....	103
7.9 Child Care Facilities .....	104
7.10 Police and Fire Services .....	105
7.11 Library Services .....	105
 Chapter VIII AIR QUALITY .....	 107
8.1 Introduction .....	107
8.2 Goals .....	107
8.3 Sources of Air Quality Impacts .....	107
8.4 Roles and Responsibilities .....	108
8.5 Required AQIP Strategies .....	109
8.5.1 Construction Emissions .....	109
8.5.2 Site Operations .....	110
8.6 Candidate AQIP Strategies .....	111
8.6.1 Air Quality Improvement Plan - Project Construction .....	111
8.6.2 Air Quality Improvement Plan - Site Operations .....	112
8.6.3 Air Quality Improvement Plan - Design Features .....	113

**TABLE of CONTENTS**  
(Continued)

<b>FIGURES</b>	<b>PAGE</b>
Figure 1-1 Regional Map .....	7
Figure 1-2 Vicinity Map .....	8
Figure 1-3 Approved GDP Exhibit .....	11
Figure 1-4 Site Utilization Plan .....	27
Figure 1-5 Circulation Plan .....	33
Figure 1-6 Mt. Miguel Road Section (Without Equestrian) .....	37
Figure 1-7 Mt. Miguel Road Section (With Equestrian) .....	39
Figure 1-8 Proctor Valley Road Section East of Mt. Miguel Road .....	41
Figure 1-9 Proctor Valley Road Section (East of 125) .....	43
Figure 1-10 Proctor Valley Road Section (West of 125) .....	45
Figure 1-11 Residential Street Sections .....	47
Figure 1-12 Transit And Bicycle Plan .....	49
Figure 1-13 Conceptual SPA Grading Plan .....	55
Figure 1-14 Trails, Parks And Open Space Plan .....	67
Figure 1-15 Greenbelt/Multi-Purpose Trail Section (Without Equestrian) .....	70
Figure 1-16 Greenbelt/Multi-Purpose Trail Section (With Equestrian) .....	71
Figure 1-17 Equestrian Trail with Sidewalk Section .....	72
Figure 1-18 Regional Trail Section .....	73
Figure 1-19 Community Trail Section .....	74
Figure 1-20 Phasing Plan .....	79
Figure 1-21 Proposed Water Plan .....	85
Figure 1-22 Proposed Recycled Water Plan .....	89
Figure 1-23 Proposed Sewer Plan .....	97
Figure 1-24 Proposed Storm Drain Plan .....	101

<b>TABLES</b>	<b>PAGE</b>
Table 1-1 Land Use Comparison Table (GDP vs. SPA) .....	16
Table 1-2 Land Use Summary Table .....	29
Table 1-3 Water Duty Factors .....	82
Table 1-4 Projected Potable Water Demands .....	83
Table 1-5 Projected Recycled Water Demands .....	83
Table 1-6 Sewage Generation Factors .....	94
Table 1-7 Projected Wastewater Flows .....	95

# RECORD OF AMENDMENTS

## 1.0 Record of Amendments

1. On February 29, 2000, the Zoning Administrator approved an Administrative Density Transfer of 20 units among residential Planning Areas C, D, E, F, G, H, I, K, and L, in conjunction with the San Miguel Ranch Master Tentative Map CVT 99-04.

2. On June 12, 2001, the City Council approved an amendment to the Planned Community District Regulations to include Floor Area Ratios in the development standards for residential districts (Ordinance No. 2837). Revisions were made to the following pages:

Vol 2 TOC-3	Table of Contents
Vol 2 Page 5	Table 2-1
Vol 2 Pgs. 13, 14	Table 2-3A
Vol 2 Page14B	Table 2-3B

3. On June 19, 2002, the Zoning Administrator approved Administrative Density Transfer PCM 02-17, approving transfer of 5 units from Planning Area D to Planning Area C. Revisions were made to the following pages:

Vol 1 TOC-1	Table of Contents
Vol 1 Page 1A	Record of Amendments
Vol 1 Page 27	Figure 1-4
Vol 1 Page 29	Table 1-2
Vol 4 Page 4.3-7	Table 4A
Vol 4 Page 4.3-8	Tables 5 and 6

4. On April 1, 2003 the City Council approved an amendment to the Planned Community District Regulations to change Planning Area G from the SF4 Land Use District to the SF3 Land Use District (Ordinance No. 2902). Revisions were made to the following pages:

Vol 1 Page 1A	Record of Amendments
Vol 1 Page 27	Figure 1-4
Vol 2 Page TOC-3	Table of Contents
Vol 2 Page 3	Figure 2-1
Vol 2 Pgs. 5, 6	Table 2-1
Vol 4 Page 4.3-5	Figure 2

# CHAPTER I

## INTRODUCTION

### *1.1 Background, Scope and Purpose of the Plan*

#### *Background*

San Miguel Ranch has been the subject of several prior planning approvals, for the 2,590 acres of property located adjacent to the northeastern border of the City of Chula Vista. San Miguel Ranch has historically included two parcels, a 738-acre South Parcel and a 1,852-acre North Parcel. The original General Development Plan (GDP) for San Miguel Ranch was approved in 1993. Subsequent redesign of the project was needed to be responsive to, and compatible with, two important regional projects in San Diego County: the proposed construction of the southerly extension of SR 125; and the San Diego-area Multiple Species Conservation Plan (MSCP) which is intended to serve as a sub-regional plan under the California State Natural Communities Conservation Planning (NCCP) Act. The Amended Horseshoe Bend GDP, which this SPA is based upon, was adopted in December 1996 and provides the regulatory framework for development of San Miguel Ranch. That GDP was based upon Caltrans' Horseshoe Bend Modified Alignment for SR125. The Amended Horseshoe Bend GDP provides for the North Parcel to be established as an ecological reserve, and establishes land use designations on the South Parcel which would accommodate a range of housing types within a high-quality residential community.

The San Miguel Ranch property site was rezoned Planned Community (PC), as part of the GDP planning process. The PC zone requires a tiered-planning process beginning with a GDP, followed by the preparation of a SPA Plan. A SPA Plan satisfies several important purposes, including: (a) providing for the orderly planning and development of large tracts of land with a variety of proposed land uses; (b) giving project applicants reasonable assurance that a SPA Plan prepared in accordance with an approved GDP will be acceptable to the City; and (c) enabling the City to adopt measures providing for the development of the surrounding area compatible with the planned community, pursuant to Chula Vista Municipal Code, Title 19, §19.48.010. The San Miguel Ranch SPA Plan has been prepared to accomplish these purposes and goals.

Trimark Pacific San Miguel is the project applicant and owner of the San Miguel Ranch property. Trimark Pacific San Miguel took title to the San Miguel Ranch property in September 1997. Since that time, Trimark Pacific has been working with City staff to implement the approved amended Horseshoe Bend GDP with preparation of this SPA Plan. The design of San Miguel Ranch is intended to address a number of concerns that were presented during the planning process.

*Scope*

This plan, known as the San Miguel Ranch SPA Plan, addresses development boundaries, preliminary grading, existing and proposed land uses, circulation, parks, recreation and open space, public facilities, development standards and guidelines, and development phasing for the San Miguel Ranch planned community. The San Miguel Ranch SPA Plan has been prepared in accordance with the adopted San Miguel Ranch GDP, as amended, the City's General Plan, as amended, Title 19, Zoning, of the Chula Vista Municipal Code and other City of Chula Vista development regulations and standards such as the Parks Development Ordinance. Consistent with the findings required to be adopted by the City, the San Miguel Ranch SPA Plan is intended to:

- Implement the goals, objectives and policies of the Chula Vista General Plan and, particularly, the San Miguel Ranch amended GDP;
- Establish a land use and facilities plan which is in conformance with the amended San Miguel Ranch GDP and the City's General Plan;
- Implement the City's Growth Management Program to ensure that public facilities are properly financed and provided in a timely manner;
- Foster development patterns which promote orderly development and prevent urban sprawl; and
- Implement a land use and facilities plan that does not adversely affect adjacent land uses, residential enjoyment, circulation or environmental quality.

This Sectional Planning Area (SPA) Plan further defines the development parameters for the San Miguel Ranch community, including the land use mix, design criteria, primary circulation pattern, open space and recreation concept, and infrastructure requirements. Additionally, the character and form of the project will be implemented through a series of guidelines and development standards prescribed in the San Miguel Ranch Planned Community District Regulations, San Miguel Ranch Design Guidelines and other associated regulatory documents described further in Section 1.2 of this chapter.

This SPA Plan as a supplement to other existing City regulations, supersedes those established in the City Zoning Ordinance. However, where in conflict, the SPA Plan shall apply, and where a topic is not addressed by this SPA Plan, appropriate City regulations shall apply.

The SPA Plan, once approved, is the implementation tool of the General Development Plan. It establishes design criteria for the site and defines precisely the type and amount of development permitted. It establishes the City's standards for

that development including open space provisions and major improvements to be constructed by the developer.

The Planned Community District Regulations adopted as part of this SPA Plan serve as an important tool through which the City will review and evaluate schematic, preliminary and final drawings of each individual project to be built in the Planned Community.

***Purpose***

The purpose of the SPA Plan is to:

- Provide a land use and facilities plan consistent with the approved GDP for San Miguel Ranch, and to address the mitigation measures defined in the certified Final Subsequent EIR for the San Miguel Ranch planned community.
- Establish detailed zoning standards for all land uses in San Miguel Ranch, including associated regulatory procedures.
- Provide a plan that can be responsive to the changing housing market within the South Bay region.
- Function as a design guide for the development of San Miguel Ranch.
- Provide for the orderly development of the project to assure compatible development in the surrounding community.
- Ensure efficient and timely provision for the phasing and financing of community facilities, including roads, parks, schools, water/sewer facilities and urban runoff/flood control.
- Provide a plan that contributes significantly to the local, state and federal conservation efforts by conserving large areas of important biological habitat.

The San Miguel Ranch community is proposed to be implemented through the use of the SPA Plan and subsequent Tentative Subdivision Map(s). Although the SPA Plan is more specific than the amended San Miguel Ranch GDP, it is intended to be dynamic rather than static, allowing for future flexibility to respond to changes in the market as well as the regulatory environment. As individual tentative maps and precise plans are processed, they will be reviewed for conformance with the SPA Plan land uses, development regulations and design standards, as well as infrastructure improvements and environmental requirements. Pursuant to regulatory procedures in this document, any SPA plan amendments are also subject to City review. A supplemental Environmental Impact Report has been prepared to address the environmental issues of this SPA Plan.



## **1.2 SPA Plan Document Organization**

The purpose of the SPA Plan is to define, in more detail than the City's General Plan and the San Miguel Ranch General Development Plan, the development parameters for the San Miguel Ranch community. The San Miguel Ranch SPA Plan includes seven components which are listed and described below:

### **Vol 1 SPA Plan**

The San Miguel Ranch SPA Plan includes a description of the land use mix, urban design criteria, circulation pattern, open space and recreation concepts and infrastructure requirements to support the community. Some specific items addressed in this plan are:

- Summary of the purpose and scope of the San Miguel Ranch SPA Plan, including the plan's regional setting and other relevant information;
- A description of the development boundaries and grading plan;
- A brief "consistency" analysis between the San Miguel Ranch SPA Plan and the approved amended San Miguel Ranch GDP and General Plan Amendment;
- A statement of the "vision" for the San Miguel Ranch planned community, including the goals and objectives to be further implemented by the San Miguel Ranch SPA Plan;
- The land use plan, including design influences, community structure, land use patterns and land use tables; and a Site Utilization Plan map
- A density transfer program.

The SPA Plan also includes a description of the development characteristics for San Miguel Ranch, including the existing and proposed circulation network, transit planning and bicycle routes, parks, recreation and open space planning, public facilities and services.

### **Vol 2 Planned Community District Regulations**

The Planned Community District Regulations, which are adopted by Ordinance pursuant to Title 19 of the Chula Vista Municipal Code, are required for implementation of the San Miguel Ranch SPA Plan. These regulations establish standards for development and address open space and recreational provisions, signage, parking, circulation and grading standards. The regulations provide the basis by which the City will review and evaluate the preliminary and final drawings for subsequent development applications, and provide guidance at the design review level. In the event of conflict between the San Miguel Ranch Planned Community District Regulations and SPA Plan, and the Chula Vista Municipal Code, the San Miguel Ranch SPA Plan Regulations will prevail.

**Vol 3 Design Guidelines**

The Design Guidelines document contains development guidelines relating to landscape architecture, community walls and fencing, lighting, signage, architecture and site planning. These development guidelines are provided to assist in creating and maintaining the design concepts which establish a unique San Miguel Ranch identity, and which will differentiate San Miguel Ranch from other communities. These concepts are intended to guide processing of implementing permits such as precise plans, site plans, subdivision maps, landscape plans and building permits

**Vol 4 Public Facilities Financing Plan**

The Public Facilities Financing Plan (PFFP) is required to comply with the City of Chula Vista Growth Management Program and Ordinance. The intent of this document is to ensure that the phased development of the project is consistent with the overall goals and policies of the City's General Plan, Growth Management Program and the San Miguel Ranch General Development Plan document, and to ensure that the development of the project will not adversely impact the City's Quality of Life Standards. The Public Facilities Finance Plan contains a fiscal analysis identifying capital budget impacts on the City as well as maintenance and operation costs for each proposed phase of development.

**Vol 5 Affordable Housing Program**

The City of Chula Vista Housing Element includes an affordable housing policy requiring a minimum of 10 percent of the total project dwelling units be designated for low and moderate income households. In order to guarantee the provision of affordable housing opportunities, the San Miguel Ranch Affordable Housing Program document outlines how, when and where the units will be provided, identifies potential subsidies available for implementation and methods to verify compliance. An initial Affordable Housing Agreement to establish basic numeric requirements and phasing provisions will be required as part of Tentative Map approval. A specific Implementing Agreement will be required to be prepared as a condition of Tentative Map approval and signed by the Developer prior to the recordation of any Final Maps.

**Vol 6 Air Quality Improvement Plan**

The purpose of the Air Quality Improvement Plan for the San Miguel Ranch SPA is to respond to the Growth Management policies of the City of Chula Vista, and those policies and regulations established at the broader State and Federal levels. The Plan is designed to minimize air quality impacts during and after construction of projects within the San Miguel Ranch, in compliance with the air quality standards and policies of the San Diego County Air Pollution Control District.

**Vol 7 Water Conservation Plan**

The Water Conservation Plan for the San Miguel Ranch SPA has been prepared to respond to the Growth Management policies of the City of Chula Vista, and any applicable requirement of the Otay Water District, which are intended to address the long term need to conserve water in new developments, to identify short term emergency measures, and to establish standards for water conservation.

The San Miguel Ranch amended GDP (Horseshoe Bend Plan) which was adopted by the Chula Vista City Council by Resolution No. 18532 on December 17, 1996, the certified Final Subsequent EIR for the San Miguel Ranch GPA/GDP Amendment (EIR No. 95-04), the attendant findings, the mitigation monitoring program and the relevant resolutions are all important documents which were reviewed during preparation of the San Miguel Ranch SPA Plan. These documents are incorporated by this reference for planning purposes.

**1.3 Location and Regional Setting**

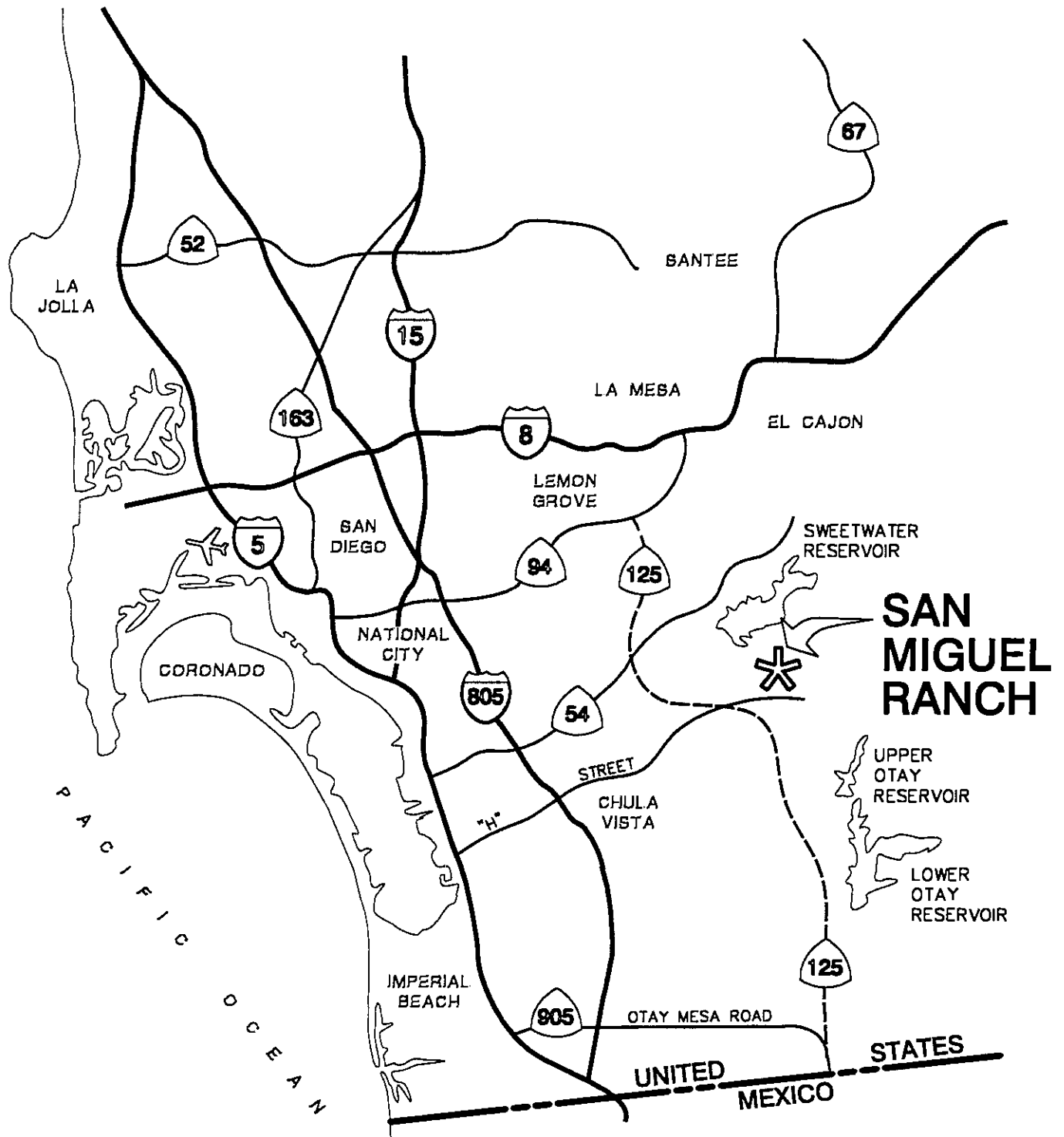
San Miguel Ranch includes currently undeveloped land located adjacent to the northeastern boundary of the City of Chula Vista (Figures 1-1 and 1-2). The property is currently in the unincorporated area of San Diego County, but within the adopted Sphere of Influence for the City of Chula Vista. Regionally, the site is situated between the Sweetwater Reservoir and the Jamul Mountains, north of the EastLake and Rolling Hills Ranch planned communities which are within the City of Chula Vista, and southeasterly of the Bonita community.

“San Miguel Ranch” has historically been comprised of two parcels, a 738-acre South Parcel and a 1,852-acre North Parcel. The North Parcel was previously a part of the San Miguel Ranch project, but due to the environmental sensitivity of the North Parcel, has been established as an ecological reserve through a conservation bank process.

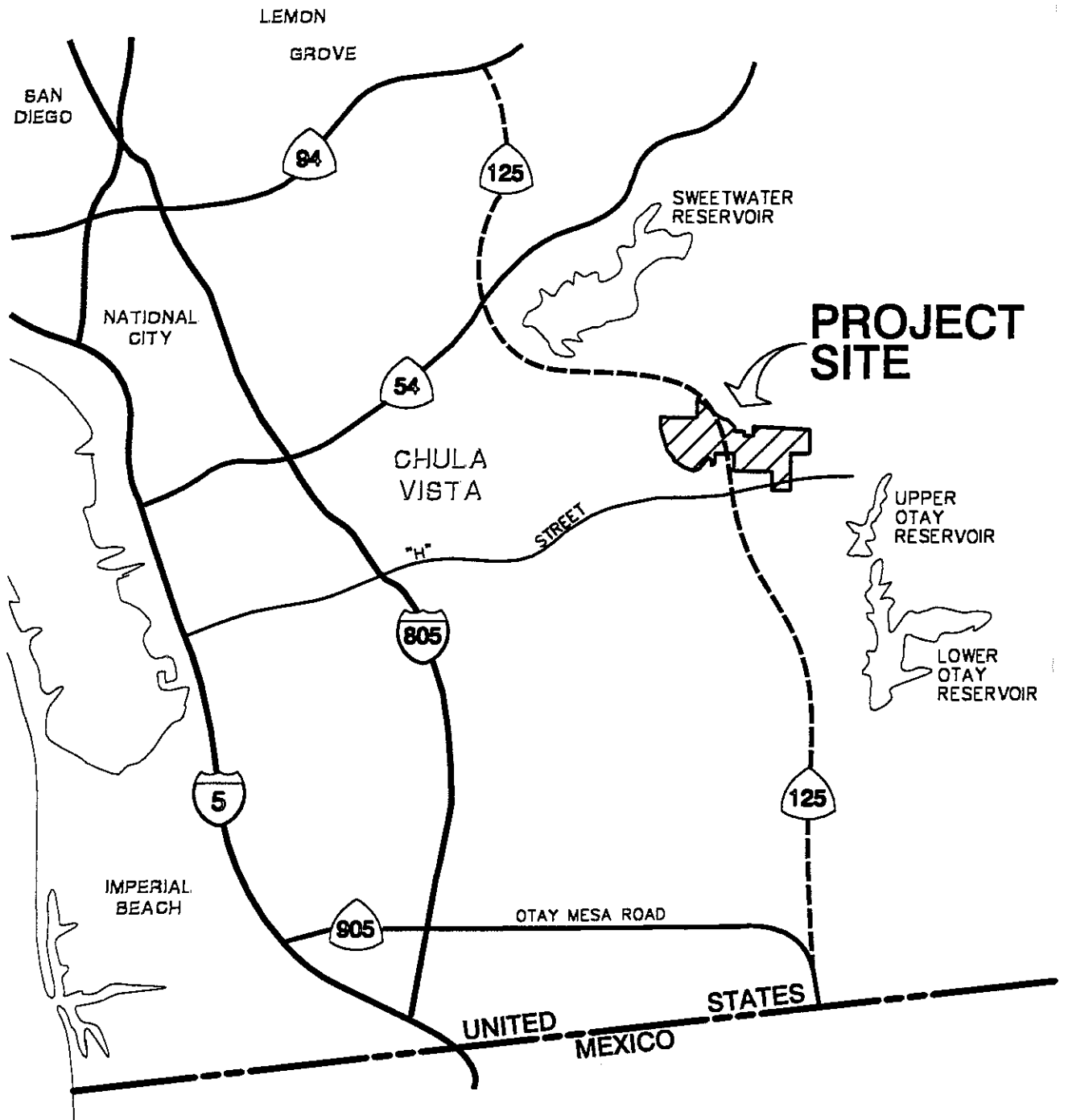
This SPA Plan project area boundaries include only the South Parcel, as well as a 4.35-acre parcel in separate ownership. This SPA Plan will be the basis for rezoning the San Miguel Ranch and an annexation to the City will need to be completed prior to processing tentative maps or precise plans within the SPA area. The annexation process will also include annexation and detachment from other special districts as applicable to the site and as approved by LAFCO.

Proctor Valley Road bounds the property on the west and south, San Miguel Mountain is to the east and Sweetwater Reservoir is to the north. The SDG&E Miguel Substation is located north of the property covered by this SPA Plan. Existing SDG&E facilities include the Miguel substation, associated transmission lines on steel lattice towers and transmission lines on wood poles. Two SDG&E utility easements cross the project site. A 250-foot wide easement runs northeast/southwest and is developed with transmission lines. A second 120-foot wide easement runs

# REGIONAL MAP



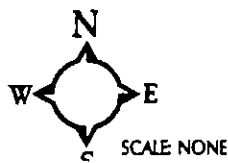
# VICINITY MAP



**HUNSAKER & ASSOCIATES**  
SAN DIEGO, INC.  
PLANNING ENGINEERING SURVEYING

Figure 1-

# San Miguel Ranch



north/south through the eastern portion of the site and is developed with transmission lines. Future development plans for the SDG&E property include expansion of the substation and transmission line facilities to accommodate service area growth and system-wide operational needs, as required, and installation of a lineman training facility. The Vista Mother Miguel property, is located adjacent to the north of the project site, This residentially designated parcel is currently in the County of San Diego, but is planned for future annexation to the City of Chula Vista and development of single family uses. Access to this property will ultimately be taken through the San Miguel Ranch property. Further to the north is undeveloped land located in an unincorporated portion of the County, which includes the natural open space preserve lands (1,843.4 acres) of the San Miguel Ranch North Parcel (see Figure 1-3), Sweetwater River and the Sweetwater Reservoir. Several developments are located north of the Sweetwater River, including the La Presa area of Spring Valley and the Pointe development. The area north of Sweetwater Reservoir (northwest of the project site) is developed with residential and commercial land uses along the Jamacha Boulevard corridor. The United States Fish and Wildlife Service (USFWS) designates the area to the northeast along the Sweetwater River as a National Wildlife Refuge.

Land to the south of the project area is within the City of Chula Vista. Several residential developments are approved and proposed for this area. Salt Creek I is a residential development with a total of 550 detached and attached residential units. Salt Creek I extends north and south of East H Street to its intersection with Mount Miguel Road. Southeast of the project area is Rolling Hills Ranch, a planned residential community currently under construction, which includes 2,662 residential dwelling units, a 25-acre community park, a neighborhood park, a fire station site and two elementary school sites.

Land uses east of the project area are within the County of San Diego. All land east of the project area between the Sweetwater River and Proctor Valley Road is currently undeveloped with the exception of two parcels of land owned by the Otay Water District, which contain water treatment ponds.

Land to the west of the project site lies within the County of San Diego. Land uses along Proctor Valley Road include residential uses and the vacant Bonita Meadows property. Further to the northwest are areas of land surrounding the Sweetwater Reservoir, and a County regional park (Summit Park) which contains passive uses, including camping facilities.

The boundaries of this SPA Plan are illustrated in Figure 1-3 and includes the development area for the San Miguel Ranch community shown as the South Parcel as well as a 4.35-acre parcel in separate ownership. The North Parcel, which is part of an ecological reserve devoted to the preservation and protection of sensitive species and habitat, was part of the original San Miguel Ranch ownership, and was

included in the GDP. Since adoption of the GDP, this parcel has been committed to permanent open space and is therefore not included in these SPA Plan regulations.

Figure 1-3 also illustrates the land use boundaries shown in the GDP. The GDP development boundaries were generalized rather than precise. As part of the SPA Plan preparation, more detailed mapping of boundaries and topography has been completed, and the development boundaries and acreage calculations have been further refined based on more detailed project information and grading plans.

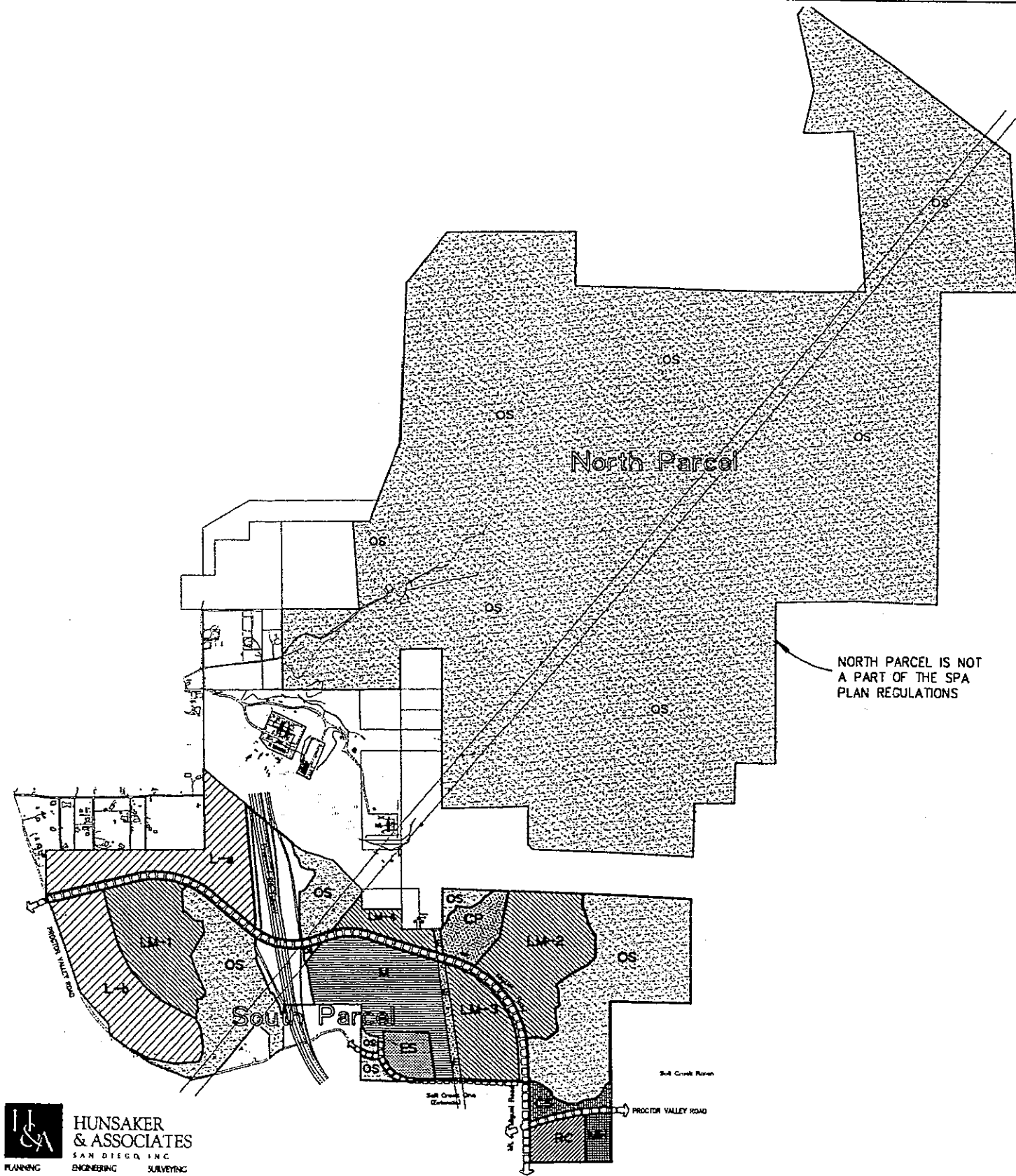
#### **1.4 Project Vision and Community Structure**

San Miguel Ranch will be a high-quality residential community incorporating logically and conveniently located community facilities, including an elementary school, a community service facility, a community park, a neighborhood park and a retail commercial center. In addition, over 2,000 acres, or 80 percent, of the San Miguel Ranch GDP property has been established as an "ecological reserve" for the preservation of sensitive lands and natural resources. This includes the entirety of the "North Parcel" and significant biological resource areas within the "South Parcel." San Miguel Ranch is also designed to be responsive to, and compatible with, the current and future transportation needs in both the City and the South Bay area of San Diego County. San Miguel Ranch will meet these transportation needs by providing for the extension of East H Street, known as Proctor Valley Road, and Mt. Miguel Road, and by accommodating the proposed alignment for SR 125.

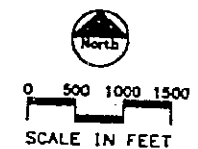
The basic vision for San Miguel Ranch can be summarized in the following statement:

*San Miguel Ranch will be a place that respects the natural features of the land, while providing a wide variety of neighborhoods and homes to meet the needs of the City of Chula Vista. The key features of the community will be neighborhoods with open spaces, excellent views, and logical transportation systems. The ecological reserve areas are devoted to the preservation of sensitive lands and natural resources. This natural open space, along with more active facilities planned within the South Parcel, will provide residents of San Miguel Ranch and the surrounding neighborhoods with a unique recreational, open space, and trail experience.*

San Miguel Ranch incorporates a variety of housing types, from attached product to large lots, to create an energetic and socially diverse community that will meet the existing and future housing needs of the City of Chula Vista. This variety in residential land uses is consistent with existing development surrounding San Miguel Ranch and will allow San Miguel Ranch to continue to provide balanced and diverse housing in the City's Eastern Territories.



Legend			
Symbol	Land Use	Gross Acres	Units
<b>Residential Uses</b>			
L	Low (5 - 3 DU/Acre)	132.3	184
LM	Low-Medium (3 - 6 DU/Acre)	165.8	624
M	Medium (6 - 11 DU/Acre)	67.5	473
MH	Medium High (11 - 18 DU/Acre)	7.8	113
Residential Total		373.4	1394
<b>Commercial Uses</b>			
RC	Retail Commercial	13.9	
<b>Institutional Uses</b>			
CS	Community Service Site	7.5	
ES	Elementary School Site	12.7	
Institutional Total		19.9	
<b>Open Space Uses</b>			
CP	Community Park	19.0	
E	Utility Easements/Parkways	15.4	
OS	Natural Open Space	2065.2	
Open Space Total		2099.6	
<b>Circulation Element Uses</b>			
125 ROW	SR-125 ROW	51.9	
	Major Roads	31.5	
Circulation Element Total		83.4	
<b>Total Acreage</b>		<b>2590.2</b>	
<b>Total Units</b>			<b>1394</b>



Overall Project  
 Amended Horseshoe Bend  
 General Development Plan  
**San Miguel Ranch**  
 Emerald Properties Corporation

**HUNSAKER & ASSOCIATES**  
 SAN DIEGO, INC.  
 PLANNING ENGINEERING SURVEYING

**San Miguel Ranch**

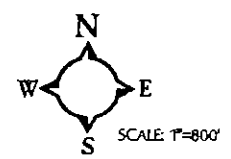


Figure 1-3

APPROVED GDP EXHIBIT  
 (December 1996)



The location of San Miguel Ranch provides the opportunity for a transition between a suburban community and into a more semi-rural environment. The areas east of SR125 will typically have a suburban character consistent with the EastLake and Rolling Hills Ranch projects, with areas to the west of SR125 being larger lots and more semi-rural in character consistent with the adjacent Sunnyside area. Throughout the San Miguel Ranch community, there will be physical (trail) linkages and visual linkages to open space areas.

### **1.5 Legal Significance/EIR**

Adoption of the Amended Horseshoe Bend GDP, and the Amended General Plan by the City Council established the framework policies for San Miguel Ranch. The adoption of this SPA Plan and the supporting documents in the SPA Plan package by the City Council will establish the City of Chula Vista's official development policy for the San Miguel Ranch. All future discretionary permits for development within the planning area will be based on this development policy, and must prove to be consistent with this San Miguel Ranch SPA Plan prior to approval.

A previous EIR and related supplement were prepared for the originally adopted GDP for San Miguel Ranch. A subsequent final EIR (95-02) was then required for the Amended GDP and General Plan Amendment for San Miguel Ranch. This subsequent EIR was certified by the Chula Vista City Council on December 17, 1996. The previous analysis in Final EIR 90-02, the Supplemental EIR and the certified Final Subsequent EIR are incorporated by reference, and will be available for review at the Department of Planning at the City of Chula Vista, 276 Fourth Avenue, Chula Vista, California 91910.

A supplemental EIR (97-02) has been prepared for the San Miguel Ranch SPA Plan, in conformance with requirements of the California Environmental Quality Act (CEQA). This EIR will also be utilized for future discretionary approvals for the San Miguel Ranch, including any tentative map approvals.

Implementing projects will be subject to review for conformance with this SPA Plan, the evaluation of impacts and mitigation measures of the Supplemental EIR. If there are changes in the project or environmental conditions such that the impacts of implementing projects are not adequately described and mitigated, an additional Supplemental EIR or an Addendum to the present Supplemental EIR may be required.

### **1.6 Conformance with the GDP**

This SPA Plan has been prepared in conformance with the Amended Horseshoe Bend GDP for San Miguel Ranch and supplements the information that was initiated in that GDP document. The approved GDP Exhibit is included as Figure 1-3.

The SPA Plan for San Miguel Ranch is based upon a statement of goals and objectives prepared by both the project applicant and City staff when the applicant was preparing the GDP for San Miguel Ranch. These goals and objectives approved by the Chula Vista City Council upon adoption of the GDP for San Miguel Ranch address four broad areas:

- **Housing/Community Character/Land Use** - Address the character of the proposed development, including housing types, community design, preservation of natural features and compatibility with adjoining land uses.
- **Resource Conservation** - A development plan that preserves or otherwise conserves sensitive habitat and other natural resources, and minimizes impacts to adjoining watersheds.
- **Community/Public Facilities** - Create schools, parks and other important public facilities and services in a timely, efficient and cost-effective manner.
- **Circulation, Public Safety and Welfare** - Respond to various regional and local traffic circulation needs, including the proposed alignment of SR-125, as well as police and fire protection.

The San Miguel Ranch SPA Plan is designed to implement the Amended Horseshoe Bend General Development Plan. The SPA Site Utilization Plan shows the relationship of land use and densities between the policy plan and the more refined and detailed SPA Plan. This Plan is included as Figure 1-4 in the following Chapter.

### ***1.6.1 Land Use Element***

The land use designations shown by the GDP include Low Residential (0.5 to 3 du/ac), Low Medium Residential (3 to 6 du/ac), Medium Residential (6 to 11 du/ac) and Medium-High Residential (11 to 18 du/ac), Retail Commercial, Community Service, Elementary School, Community Park, Open Space and Utility Easements. The San Miguel Ranch SPA Plan reflects the same overall land use pattern with respect to land use types and residential densities as depicted on the GDP map.

The initial density distribution within the SPA Districts is based on anticipated product type, design characteristics and preliminary grading plans and totals the maximum of 1,394 dwelling units. In order to respond to the desire for a variety of product types, the density for some SPA Districts fall above or below the density range for the land use category. However, the cumulative density of all districts within each land use category are within the range of the GDP land use category. A condition of the GDP was that the density of the Medium Residential area not exceed seven dwelling units per gross acre. The SPA Plan shows the cumulative density for this area (Districts B, E, and G) to be 6.8 du/ac in conformance with this requirement.

As a result of refinements in street alignments, open space limits and grading requirements, there are minor changes in the acreage of the various planning areas between the GDP and the SPA Plan. A comparison between the GDP and the SPA Plan is shown on Table 1-1.

The non-residential land uses in the San Miguel Ranch SPA Plan, which include the Retail Commercial, Community Purpose Facility, Elementary School, Community Park, Trails, Open Space and Utility Easements are consistent with the land use designations shown on the GDP map. A portion of the required Community Purpose Facility acreage will be provided through an expanded Community Park site. In addition, the GDP required provision of a 3-acre private park facility within the Medium Residential area, which is shown on the SPA Plan by the Neighborhood Park designation.

### ***1.6.2 Circulation Element***

The GDP designates the Circulation Element roads which will serve San Miguel Ranch, including the extension of East H Street (Prime Arterial - 6 lanes), the extension of Mount Miguel Road (Class I Collector - 4 lanes), and the approved alignment for SR 125. Mount Miguel Road as designed will be a hybrid road classification, combining elements of a Class I Collector and a 4-lane Major Road, including a planted median for a portion of the road, and an expanded north-side landscape easement. There are detailed cross sections in Volume 1, Chapter III of this SPA Plan for both of these roads which identify the required lane configurations and modifications in the median and parkway configurations for San Miguel Ranch.

A traffic analysis, prepared by BRW, Inc., titled "San Miguel Ranch SPA Transportation Study" and dated March 3, 1999, details the necessary improvements to the circulation system based on the phased development of the project. The San Miguel Ranch SPA includes each of the Circulation Element roads analyzed in the traffic impact analysis as delineated by the GDP. A transportation phasing plan, consistent with the City's Growth Management Element has been incorporated into the San Miguel Ranch SPA Plan and is addressed in more detail in the PFFP.

The SPA Plan also makes provisions for bicycle lanes along East H Street and Mt. Miguel Road, with extensive trail and pedestrian circulation routes throughout the plan area.

### ***1.6.3 Public Facilities (Community Purpose Facility)***

The SPA Plan includes a Community Purpose Facility site as shown in the GDP, located at the northeast corner of Mount Miguel Road and Proctor Valley Road/East H Street. A portion of the required Community Purpose Facility acreage will be provided through an expanded Community Park site. The other public facilities needed to serve the project are identified and evaluated in the San Miguel Ranch Public Facilities Financing Plan.

**Table 1-1  
Land Use Comparison Table for San Miguel Ranch  
GDP vs. SPA**

Land Use Designation	Gross Acres		Total DU'S		DU'S/Gross Acre	
	GDP	SPA	GDP	SPA	GDP	SPA
<b>Residential Uses</b>						
R-L - Low	132.3	122.7	184	157	1.4	1.3
R-LM - Low Medium	165.8	164.1	624	680	3.8	4.1
R-M - Medium	67.5	62.9	473	428	7.0	6.8
R-MH - Medium High	7.8	7.2	113	129	14.5	17.9
<i>Subtotal</i>	<i>373.4</i>	<i>356.9</i>	<i>1,394</i>	<i>1,394</i>	<i>3.7</i>	<i>3.9</i>
<b>Commercial Uses</b>						
RC - Retail Commercial	13.9	14.3**	--	--	--	--
<b>Institutional Uses</b>						
CS - Community Service	7.5	5.76***	--	--	--	--
ES - Elementary School	12.4	13.7				
<i>Subtotal</i>	<i>19.9</i>	<i>18.3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
<b>Open Space Uses</b>						
CP - Community Park	19.0	21.6	--	--	--	--
NP - Neighborhood Park	3.0*	3.5				
OS - South Parcel / Natural	213.2	244.3	--	--	--	--
E - Utility Esmts/Parkways	15.4	6.3	--	--	--	--
<i>Subtotal</i>	<i>247.6</i>	<i>275.7</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>--</i>
<b>Circulation Element Uses</b>						
SR 125 Right-of-way	51.9	49.6	--	--	--	--
Major Roads	31.5	28.3	--	--	--	--
<i>Subtotal</i>	<i>83.4</i>	<i>77.9</i>				
<b>PROJECT TOTAL</b>	<b>738.2</b>	<b>743.1**</b>	<b>1394</b>	<b>1394</b>	<b>1.9</b>	<b>1.9</b>

\* The 3.0-acre Neighborhood Park was included in Medium Residential land use acreage of 67.5 acres.

\*\* Includes Pacific Bay Homes Parcel of 4.35 acres.

\*\*\* Figure reflects required net useable acres. Approximately 2.26 to 2.76 acres of this requirement will be provided through an expanded, net community park site of approximately 17.92 to 18.42 acres.

#### ***1.6.4 Housing Element***

The GDP requires provision of 5% low income housing and 5% moderate income housing, based on family size and income, consistent with the Chula Vista General Plan. In order to guarantee the provision of affordable housing opportunities, the San Miguel Ranch Affordable Housing Program document outlines how, when and where the units will be provided, identifies potential subsidies available for implementation and methods to verify compliance. This document is included as Volume 5 of this SPA Plan Package. A separate Affordable Housing Implementing Agreement will be prepared to assure construction of the required low and moderate income units consistent with the phasing schedule for development of San Miguel Ranch.

#### ***1.6.5 Conservation/Open Space Element***

The SPA Plan provides for open space amenities consistent with the GDP designations, incorporating preservation of sensitive biological resources including Otay Tarplant Preserve areas, archaeological resources, as well as landform features within natural open space areas of the South Parcel. In addition, the North Parcel has been set aside in open space for perpetuity as part of the Conservation Bank Agreement with the USFWS and CDFG. The project is participating in the Multi Species Conservation Program.

#### ***1.6.6 Parks and Recreation Element***

The GDP designates a community park site for San Miguel Ranch. This community park also includes the Chula Vista Greenbelt Trail which is a major hiking trail intended to serve the entire community when completed. The San Miguel Ranch SPA Plan implements the community park and greenbelt trail. The SPA park and open space uses are consistent with the GDP.

#### ***1.6.7 Safety Element***

Brush management and fuel modification guidelines are incorporated into the SPA Plan Design Guidelines to improve fire safety in San Miguel Ranch, and as required by the GDP. These guidelines are consistent with City Fire Marshall and MSCP criteria.

#### ***1.6.8 Noise Element***

The San Miguel Ranch SPA Plan Design Guidelines provide for sound attenuation walls where necessary to avoid noise impacts on future residents. The locations for such walls have been identified based on projected traffic volumes and preliminary grading plans to be located adjacent to residential uses along Mount Miguel Road east of SR125. Specific design and siting of required sound attenuation walls will be incorporated into project design at the Tentative Map level, and shall be shown on project improvement plans.

### ***1.6.9 Conformance with GDP Conditions of Approval***

The City Council adoption of the San Miguel Ranch GDP in December, 1996 included several specific conditions of approval to be complied with prior to the approval of a Sectional Planning Area (SPA) Plan. Each of these conditions have been incorporated into the SPA planning process, and a summary of compliance is included below. Each condition of approval is provided in italics, followed by a brief explanation of how the condition has been addressed in the SPA planning process.

- 1. The alternative GDP which reflects the route of SR-125 rejected by the State shall be null and void.***

This SPA is based on the Horseshoe Bend General Development Plan, which follows the alternative alignment for the SR125 tollway. The Proctor Valley GDP is null and void.

- 2. The applicant shall:***
  - 2a. Design a trail system to the satisfaction of the Directors of Parks and Recreation and Planning which is consistent with the policies of the Chula Vista General Plan and is in substantial conformance with the trail system indicated on the GDP figure providing project-associated trails to be located within the San Miguel Ranch property and which links to existing and planned trails in the area.***

The San Miguel Ranch SPA includes an extensive trail system which is presented in Volume I, Section 3.8 and Section 5.3, including a trails map (Figure 1-14). This trails plan includes multi-purpose trails, regional and community trails with linkages to existing and planned trails offsite.

- 2b. Link the Community Park and the Elementary School by a trail/sidewalk system in a manner approved by the Directors of Parks and Recreation and Planning.***

Access between the Community Park and the Elementary School will be provided through both an on-street sidewalk system and a trail system utilizing the San Diego Gas & Electric open space easement and adjacent open space areas. These are illustrated on Figure 1-14 in Volume 1 of the SPA Plan.

- 2c. Provide a minimum 3-acre private park within the area designated Medium Residential to be owned and operated by a homeowner's association established for the "Medium" area.***

The SPA Plan includes a Neighborhood Park site (designated NP) within the Medium Residential area. This is shown on the SPA Site Utilization Plan (Figure 1-4) and is accounted for in Tables 1-1 and 1-2. It is further described in Volume I, Section 5.4.

- 2d. Prepare a comprehensive buffer plan for the visual separation of the project and the existing and planned facilities of the San Diego Gas and Electric Company's Miguel***

***Substation through measures such as landscaping, significant topographic variation, homesite orientation and other appropriate methods.***

The visual screening of San Diego Gas & Electric's Miguel Substation is provided partially through the proposed grading of residential areas, and the requirements for screening is located within the design provisions of the SPA, Volume 3, Section 3.9.3. Figure 3.7 also illustrates the areas where screening will be necessary to comply with this condition.

- 2e. Prepare a brush management plan which analyzes and reduces impacts related to placing homes in close proximity to large areas of natural vegetation.***

A brush management plan has been developed in consultation with the City Fire Marshall, to address the location of structures adjacent to natural vegetation areas, and is included in Volume 3, Section 3.9.2.

- 2f. Prepare a Sectional Planning Area plan traffic analysis in the SEIR which:***
- (1) Determines the existing and ultimate capacity and levels of service for the existing road network serving the project area.***
  - (2) Formulates a project phasing plan which is consistent with the phasing and financing of on- and off-site public street facilities as a component of the Public Facilities Financing Plan as required by the SPA regulations.***
  - (3) Determines the types and phasing of interim on-site and off-site street facilities should SR-125 not be constructed before or concurrent with the proposed construction of the project.***
  - (4) Determines the types and locations of off-site street facilities required to provide appropriate access to the Sweetwater Valley.***
  - (5) Determines impacts of the entire project at a maximum dwelling unit buildout on the levels of service for the existing and planned road network serving the project area.***

An extensive traffic analysis was prepared for SMR which addressed each of these conditions by BRW, Inc. titled "San Miguel Ranch SPA Transportation Study" and dated March 3, 1999. The full traffic analysis evaluated the project's impact on the existing and planned street system, identified requirements for phasing and facilities. The traffic study and findings are included in the EIR for the San Miguel Ranch project and phasing provisions are included in the Public Facilities Financing Plan (Volume 4 of the SPA Plan package).

- 2g. Receive approval, if required, of an amendment to the County of San Diego General Plan Circulation Element, or other action acceptable to the County, which provides for off-site access to the Sweetwater Valley from the project.***

As a result of traffic studies and traffic model runs reviewed by the County, it was determined that the San Miguel Ranch project has only a minimal impact on the County transportation system. Based on the traffic forecasts, the County determined that no amendment was necessary to the County of San Diego

General Pan Circulation Element (confirmed in correspondence from the County Department of Public Works, Mr. Robert D. Christopher, dated October 28, 1998).

- 3. A technical committee consisting of appropriate staff from the City Engineering and Planning Departments and the County Departments of Public Works and Planning and Land Use shall be established to provide input to the SPA-level study of area-wide transportation planning concerns.*

This technical committee provided input and review of the SPA level traffic study, working with BRW, SANDAG, the County of San Diego and the City of Chula Vista.

- 4. The dwelling unit totals of 1432 units for the Proctor Valley Plan and 1394 units for the Horseshoe Bend Plan are approved in principle. The ultimate total, resulting from more specific SPA and Tentative Map planning and site analysis, may require a reduction in these numbers. Actual development entitlements shall also be predicated upon the availability of public services and sufficient capacity of the area road network as determined by the traffic analysis required in Condition 2f.*

The San Miguel Ranch SPA provides for a maximum of 1394 total dwelling units, as detailed on the SPA Site Utilization Plan and Table 1-2. Density provision are detailed in Section 2.2 and 2.3 of Volume 1. An evaluation of public service availability and roadway capacity relative to project phasing is included in the Public Facilities Financing Plan (Volume 4 of this SPA Plan).

- 5. The density of the area designated Medium Residential shall not exceed seven dwelling units per gross acre.*

The SPA Plan (Table 1-2) shows an overall density of the Medium Density areas as 6.8 dwelling units per acre.

- 6. The minimum net lot size in the area designated LM-1 shall be 7,000 square feet in conformance with the clustering provisions of Section 6.3 of the General Plan.*

The LM-1 area of the GDP is identified as Neighborhood J in the SPA plan. The PC District Regs (Volume 2 of the SPA Plan) establish a minimum lot size for this area of 7,000 square feet (Tables 2-1 and 2-2).

- 7. A minimum of 50 percent of the lots west of the proposed SR-125 alignment on the Horseshoe Bend Plan or a minimum of 50 percent of the lots west of the diagonal SDG&E right-of-way on the Proctor Valley Plan shall be improved to the Residential Estates Zone standards in order to maintain a balance of at least 50 percent of all lots in the western area of the project as estate-sized lots in the vicinity of the Bonita/Sunnyside community.*



The PC District Standards for San Miguel Ranch require that Neighborhoods K and L, west of the SR125 alignment will comply with Residential Estates zone standards.

8. *Environmental review shall be accomplished for annexation of any lands which will be annexed to the city in conjunction with the annexation of the San Miguel Ranch property. This condition may be waived only if (1) the Subarea Plan of the Multiple Species Conservation Program (MSCP) precludes any development of the North Parcel, or (2) the Wildlife Agencies purchase the area of the North Parcel on which the General Plan designated that development may occur or (3) it is determined by the Chula Vista City Council that given the eventual disposition of the North Parcel for ownership and maintenance purposes, either through the MSCP or other means, it is not in the best interest of the City of Chula Vista to annex the North Parcel into its corporate boundaries.*

The area of the North Parcel on which the General Plan designates that development may occur has been acquired by the Wildlife Agencies through a Conservation Bank Agreement, therefore this condition is considered waived. The EIR for San Miguel Ranch does include some discussion of an alternative for annexation of the North Parcel.

9. *The SPA plan shall define criteria by which the design of the project in the vicinity of Bonita/Sunnyside provides, to the extent feasible, the highest possible degree of compatibility between this community and the project.*

The PC District Regulations (Volume 2) include specific requirements for Neighborhood L, adjacent to the Bonita/Sunnyside boundary, which include large lot sizes and expanded setbacks from this boundary (Table 2-2). Additionally, the grading provisions of Volume 1, Section 4.3.3 require that the slope be set back where adjacent to existing homes, and that the slope undulate to provide a more gradual transition to the estate sized lots in San Miguel Ranch.

10. *The San Miguel Ranch Citizen's Advisory Committee, presently appointed and serving, shall continue to provide citizen input into the SPA plan and subsequent Tentative Map processes required by the previous resolution of approval (Resolution 17057).*

The Citizen's Advisory Committee has been meeting approximately once per month to provide input during preparation of the SPA.

## **1.7 Other Related Documents**

There are other documents related to the San Miguel Ranch SPA Plan. Prior to the preparation of this plan, the Chula Vista General Plan and Amended Horseshoe Bend General Development Plan established the broad policy level standards and requirements for development of San Miguel Ranch. All of the documents which are components of the SPA Plan package (Design Guidelines, Public Facility Financing

Plan, etc.) have been prepared concurrently and are based on this SPA Plan. In addition, a Subsequent Environmental Impact Report (EIR) has been prepared to document the potential environmental effects associated with the San Miguel Ranch SPA Plan and identify mitigation measures to reduce or eliminate such impacts.

Subsequent to the approval of all the SPA level documents, subdivision maps and improvement plans will be prepared. These will provide the necessary details to actually construct the project described by the SPA level documents. These plans, the construction process and ultimate uses/activities within the SPA are required to be consistent with the applicable provisions of this SPA Plan and related documents.

# CHAPTER 2

## DEVELOPMENT CONCEPT

### ***2.1 Design Influences***

The design for San Miguel Ranch has been influenced by many local and regional elements. These design influences include the surrounding natural features as well as the existing and planned development of the regional and local communities that encompass the Eastern Territories.

Many factors incorporated into the design of San Miguel Ranch were identified in the approved GDP. These were determined by analysis of the on site conditions and characteristics which include landforms, view potential, drainage patterns, biological resources, utility corridors, public facility requirements, regional and local transportation needs, and surrounding land use relationships.

#### ***2.1.1 Site Characteristics and Visual Context***

The project site and its vicinity consist of undeveloped land generally comprised of moderately steep topography with many finger canyons. The Horseshoe Bend and Gobbler's Knob landforms are located in the western portion of the property, and the eastern portion of the property includes significant rock outcroppings. There is some major elevation change on the property which provides for good views to the west and south, and Mother Miguel and San Miguel Mountains provide an attractive visual backdrop. Views to the SDG&E substation to the north are somewhat screened by a small ridge.

Two SDG&E easements cross the project site, and are developed with transmission facilities on both steel lattice towers and wood poles. The proposed Horseshoe Bend alignment for SR 125 divides the South parcel into two separate development areas, with approximately one-third of the property on the west side of SR 125 and two-thirds on the east of SR 125.

Biological resources on the property include a number of sensitive species, the majority of which occur in the eastern section of the site. Otay Tarplant is found throughout the site, with large populations in the southwest.

#### ***2.1.2 Surrounding Land Uses***

The land uses around the project influenced the designated uses for San Miguel Ranch. Development to the south and east, includes single-family and multi-family residential developments within Salt Creek Ranch and Rolling Hills Ranch, planned communities which also include sites for parks, a fire station, two elementary schools and commercial uses.

Land uses east of the project area are within the County of San Diego. All land east of the project area between the Sweetwater River and Proctor Valley Road is currently undeveloped with the exception of two parcels of land owned by the Otay Water District, which contain water treatment ponds.

Land to the north and west of the project site lies within the County of San Diego with large estate-size lots in Bonita. Land uses along Proctor Valley Road include residential uses, a kennel facility and the vacant Bonita Meadows property. Immediately adjacent to the north of SMR is the Vista Mother Miguel property which is currently proposed for annexation to the City of Chula Vista and development of 43 residential lots.

### ***2.1.3 Community Character***

The community character for San Miguel Ranch centers on the enormous open space surrounding the project. The use of trails to connect this open space to the Community Park, neighborhood park, elementary school, and residential districts will be a defining feature for San Miguel Ranch.

Mt. Miguel Road is also a key element in establishing the community character. Mt. Miguel Road will be a central spine that ties the residential districts together and sets the theme for the community. This will be accomplished by providing an expanded and enhanced landscaped parkway from East H Street to the westerly terminus at Proctor Valley Road. An enhanced landscaped median is also proposed for portions of Mt. Miguel Road to be located at both the eastern and western primary entries.

San Miguel Ranch is intended to be a pedestrian friendly community that allows access from the many residential districts to the surrounding open spaces and to the numerous community features.

## ***2.2 Land Use Patterns***

The Land Use Plan for San Miguel Ranch provides for logical and efficient land use patterns. Significant thought has been given to the locations of the various land uses relative to each other, to the proposed SR 125 alignment, and to their surroundings. For example, the Mt. Miguel Road alignment was carefully selected to minimize grading and visual impacts by incorporating landform-grading techniques that will enhance the character of the development and maximize views from the road. A parkway will be placed on each side of Mt. Miguel Road that will contain trails and pathways. The Community Park in the eastern half of the South Parcel will be located adjacent to this parkway and linked to the City's greenbelt system. This will allow a direct trail linkage from the park to the proposed regional trails.

The Amended Horseshoe Bend GDP provides for a range of residential uses from large single family lots of approximately one half-acre in size to multi-family housing. The SPA land use pattern features varied sizes of residential lots, with the

preservation of significant land areas in open space. This design assures a wide variety of housing types that are located in accordance with sound planning principles.

The internal design of the project will establish a residential community with an identifiable character and distinct neighborhoods. This community character will be defined, in part, by the extensive areas devoted to the permanent preservation of lands and natural resources under the City's draft Subarea Plan and the draft MSCP/NCCP Program.

Due to the need for a wider range of housing types in the region and to provide compatible densities adjacent to the existing higher densities found in Eastlake and Salt Creek I, the land use plan provides higher densities in the eastern portions of the site. The highest density housing will be located adjacent to East H Street and the commercial area to facilitate employment and access to mass transit, and adjacent to SR 125 in the eastern area. The project area west of SR-125 will have lower density development, reflecting both the landform characteristics and neighboring land use patterns. The Bonita area, a low-density community, lies to the northwest of the site. Therefore, the lowest density portions of San Miguel Ranch will be located in its northwestern area adjacent to the Bonita area.

Community and commercial facilities are sited to serve the surrounding communities, with a location central to the developing residential communities in this portion of the Eastern Territories, at the intersection of Mount Miguel Road and Proctor Valley Road/East H Street.

Figure 1-4 illustrates the general land use pattern for San Miguel Ranch. The project is characterized by its sensitivity to the natural environment and respect for the existing landforms. Only the most developable portions of the 738 acre "South Parcel" will be used to develop San Miguel Ranch while retaining over 200 acres of natural open space. The 1852 acre "North Parcel" has already been set aside for the preservation of sensitive lands and natural resources in a manner that is consistent with the City's draft Subarea Plan and the draft MSCP/NCCP Program. Retaining these unique features will strengthen the identity of the individual projects in the South Parcel.

### ***2.2.1 Statistical Summary - Land Use Table***

The SPA Plan provides guidance for future development at the subdivision and improvement plan level, and is the basic reference for determining permitted land uses, densities, total unit, and required public facilities. These are illustrated in the Site Utilization Plan, Figure 1-4. A statistical summary of the San Miguel Ranch SPA Plan Land Uses is included on Table 1-2, and is based on the Site Utilization Plan. As a result of refinements in street alignments, open space limits and grading requirements, there are minor changes in the acreages of the various planning areas between the GDP and the SPA Plan. A comparison between the GDP and the SPA

Plan is shown on Table 1-1 in the previous Chapter. The acreage shown in these statistical summaries is to the nearest one-tenth acre.

The development pattern and interior circulation arrangement indicated on the Site Utilization Plan is based on preliminary design. Minor modifications may result from technical refinements in the tentative maps, and these shall not require an amendment to this SPA Plan as long as the plans and maps are generally consistent with the overall intent of this SPA Plan. Minor modifications to these configurations that have been approved by the director of Planning and Building may occur as a part of the tentative tract map approval process. If minor modifications to the SPA Plan exhibits and text are needed to reflect adjustments based on an approved tentative tract map, these can be accomplished without a formal SPA amendment.

### **2.3 Density Transfer**

The density distribution within the SPA Districts is based on anticipated product type, design characteristics and preliminary grading plans and, as shown in Tables 1-1 and 1-2, totals a maximum of 1,394 dwelling units. Flexibility is allowed in the SPA Plan by provision of a density transfer program which permits the redistribution of residential units from one residential area category to another.

Such density redistribution is permitted up to the total of ten percent (10%) of the aggregate number of units permitted by the SPA Plan, provided the total number of units in any district must not exceed the maximum density for the GDP land use category or, more than 10% of the number of units in the receiving SPA District, whichever is less. Additional units may be added within any particular area at the Tentative Map stage, provided all design criteria contained herein and in the Community Design Guidelines are met as determined by the Director of Planning and Building. In addition to these restrictions, increases in the number of dwelling units in one area shall be accompanied by corresponding decreases in another area.

The Planning Director may approve density transfers through an administrative approval. Proposed changes outside the scope of these provisions may be allowed, subject to a SPA Plan amendment. An exhibit showing the locations of the density changes shall accompany such requests as the Planning Director might deem necessary.

# LEGEND



TYPICAL STREET LAYOUT

TYPICAL PLANNING AREA

TYPICAL PLANNING AREA DESIGNATION

PLANNING AREA	PRODUCT TYPE / USE	LAND USE DISTRICT	GROSS ACRES	DU'S	DU'S/AC
<b>RESIDENTIAL LAND USES</b>					
<b>Res - Low (0-3 du/ac)</b>					
L	SFD	SFE	62.2	73	1.2
K	SFD	SFE	60.5	84	1.4
<b>Subtotal</b>			<b>122.7</b>	<b>157</b>	<b>1.3</b>
<b>Low-Med (3-6 du/ac)</b>					
J	SFD	SF-1	50.5	162	3.2
H	SFD	SF-3	33.2	131	3.9
I	SFD	SF-2	31.7	107	3.4
C	SFA/SFD	SFA	13.1	110	8.4
D	SFA/SFD	SF-5	22.9	116	5.1
F	SFD	SF-3	12.7	46	3.6
<b>Subtotal</b>			<b>164.1</b>	<b>672</b>	<b>4.1</b>
<b>Med (6-11 du/ac)</b>					
B	SFA/MF	SFA	11.4	219	19.2
E	SFD	SF-4	29.7	144	4.8
G	SFD	SF-3	21.8	73	3.3
<b>Subtotal</b>			<b>62.9</b>	<b>436</b>	<b>6.9</b>
<b>Med-High (11-18 du/ac)</b>					
A	MF	MF	7.2	129	17.9
<b>Subtotal</b>			<b>7.2</b>	<b>129</b>	<b>17.9</b>
<b>Residential Total</b>			<b>356.9</b>	<b>1394</b>	<b>3.9</b>
<b>NON-RESIDENTIAL LAND USES</b>					
N	COMMERCIAL USES*	CR	14.3	--	--
S	SCHOOL SITE	ES	13.7	--	--
M	INSTITUTIONAL USES	CPF***	4.6	--	--
OS1-9	OPEN SPACE USES	OS-TR & PR	244.3	--	--
E-1	SDG&E EASEMENTS	OS	6.3	--	--
CP	COMMUNITY PARK	CP/CPF****	21.6	--	--
NP	NEIGHBORHOOD PARK	NP	3.5	--	--
SR-125	SR - 125	--	49.6	--	--
	STREETS	--	28.3	--	--
<b>Non-Residential Total*</b>			<b>386.2</b>	--	--
<b>Total Acreage</b>			<b>743.1</b>	--	--

\* Includes Pacific Bay Homes Parcel (4.35 acres)  
 \*\* Streets include Mount Miguel Road, Proctor Valley Road and the extension of East H Street as Proctor Valley Road.  
 \*\*\* This site shall provide between 3.0 and 3.5 net useable acres. Any changes necessary in the gross acreage envelope of Planning Area "M" would be taken from the adjacent open space and will be identified at the Tentative Map level.  
 \*\*\*\* A portion of the project's required net useable acres for community purpose facilities will be provided within an expanded net useable community park site. The provision of this additional park acreage may require some area from Planning Areas H and/or I, which will be identified at the Tentative Map level.

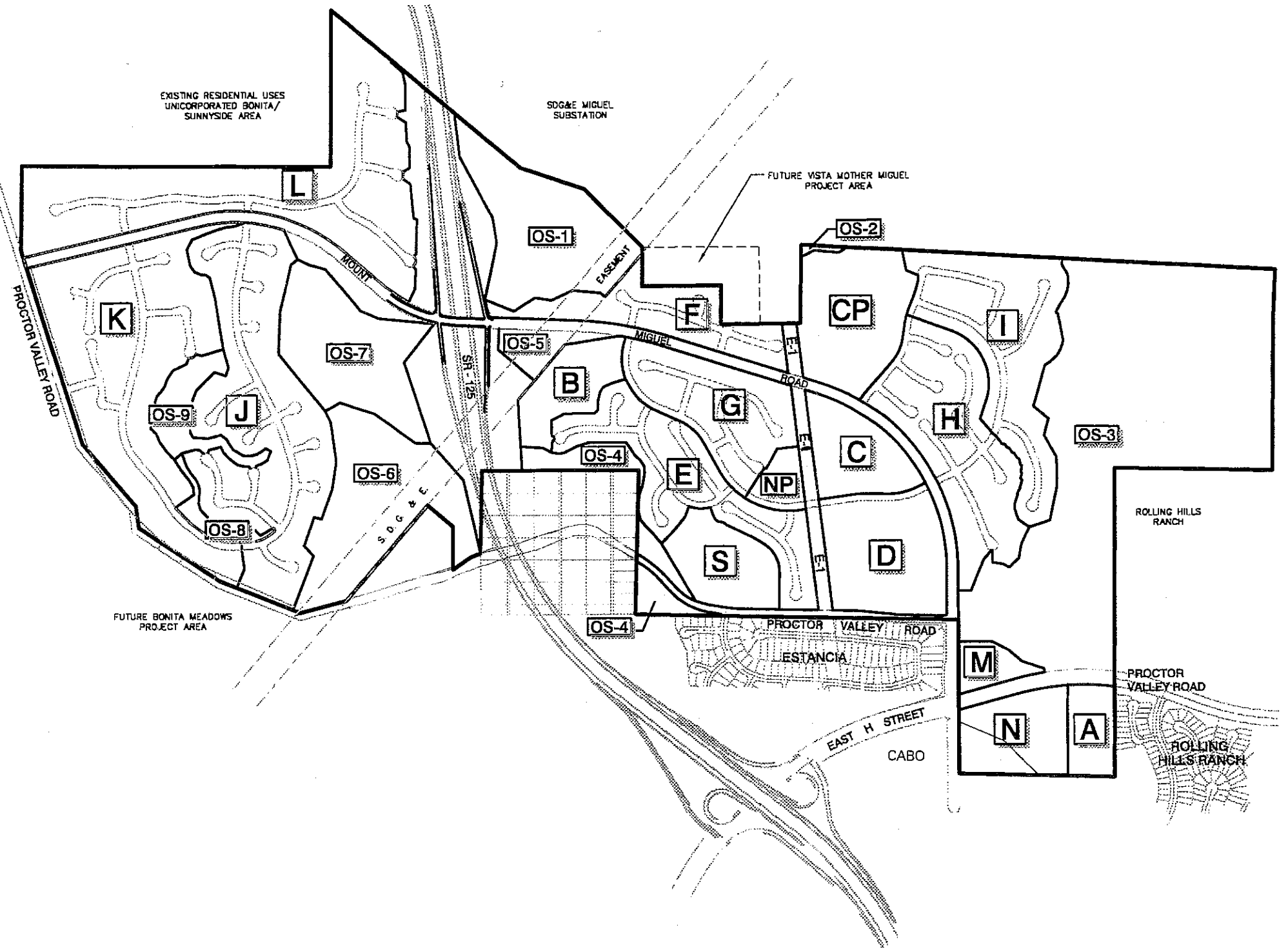
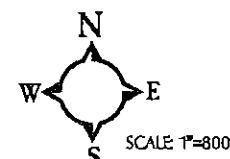


Figure 1-4



**Table 1-2  
Land Use Summary Table  
San Miguel Ranch SPA Plan**

<i>PROPOSED USE</i>	<i>GDP DESIGNATION</i>	<i>SPA DISTRICT</i>	<i>PRODUCT TYPE</i>	<i>GROSS ACRES</i>	<i>DU'S</i>	<i>DU'S/AC</i>
<b>RESIDENTIAL LAND USES</b>						
<i>Residential - Low (0-3 du/ac)</i>						
	L-a	L	SFD	62.2	73	1.2
	L-b	K	SFD	60.5	84	1.4
<b>Subtotal</b>				<b>122.7</b>	<b>157</b>	<b>1.3</b>
<i>Residential - Low-Medium (3-6 du/ac)</i>						
	LM-1	J	SFD	50.5	162	3.2
	LM-2	H	SFD	33.2	131	3.9
	LM-2	I	SFD	31.7	107	3.4
	LM-3	C	SFA/SFD	13.1	110	8.4
	LM-3	D	SFA/SFD	22.9	116	5.1
	LM-4	F	SFD	12.7	46	3.6
<b>Subtotal</b>				<b>164.1</b>	<b>672</b>	<b>4.1</b>
<i>Residential - Medium (6-11 du/ac)</i>						
	M	B	SFA/MF	11.4	219	19.2
	M	E	SFD	29.7	144	4.8
	M	G	SFD	21.8	73	3.3
<b>Subtotal</b>				<b>62.9</b>	<b>436</b>	<b>6.9</b>
<i>Residential - Medium-High (11-18 du/ac)</i>						
	MH	A	MF	7.2	129	17.9
<b>Subtotal</b>				<b>7.2</b>	<b>129</b>	<b>17.9</b>
<b>RESIDENTIAL TOTAL</b>				<b>356.9</b>	<b>1394</b>	<b>3.9</b>
<b>NON-RESIDENTIAL LAND USES</b>						
COMMERCIAL USES*	RC	N		14.3	--	--
INSTITUTIONAL USES	ES	S		13.7	--	--
INSTITUTIONAL USES	CS	M		4.6***	--	--
OPEN SPACE USES	OS (South)	OS1-8		244.3	--	--
SDG&E EASEMENTS	E	E-1		6.3	--	--
COMMUNITY PARK	CP	CP		21.6****	--	--
NEIGHBORHOOD PARK	M	NP		3.5	--	--
CIRCULATION USES	125 ROW	SR-125		49.6	--	--
CIRCULATION USES	Major Streets**	--		28.3	--	--
<b>NON-RESIDENTIAL TOTAL*</b>				<b>386.2</b>	<b>--</b>	<b>--</b>
<b>Grand Total**</b>				<b>743.1</b>	<b>--</b>	<b>--</b>

\* Includes Pacific Bay Homes Parcel (4.35 acres)

\*\* Streets include Mount Miguel Road, Proctor Valley Road and the extension of East H Street as Proctor Valley Road

\*\*\* This site shall provide between 3.0 and 3.5 net usable acres. Any changes necessary in the gross acreage envelope of Planning Area "M" would be taken from the adjacent open space and will be identified at the Tentative Map level

\*\*\*\* A portion of the project's required net usable acres for community purpose facilities will be provided within an expanded net usable community park site. The provision of this additional park acreage may require some area from Planning Areas H and/or I, which will be identified at the Tentative Map level



## 2.4 Housing Programs

The current Housing Element of the City of Chula Vista General Plan establishes programs and policies that are intended to provide adequate and suitable housing opportunities for all economic segments of the community. The predominant land use in San Miguel Ranch is residential, intended to provide housing in response to local market demands. This SPA permits a variety of housing types in responding to these demands, ranging from attached apartment or condominium projects to housing on lots exceeding one-half acre. The SPA Plan designates the types of housing allowed within the residential categories, with a variety permitted to allow response to changing market conditions.

The City of Chula Vista has an affordable housing policy which requires a minimum of 10% of the total housing development to be affordable to low and low moderate-income households with at least one-half of those units (5% of the project total units) being designated for low-income households and the remaining 5% for moderate income households.

In order to guarantee the provision of affordable housing opportunities, the City requires that a specific Affordable Housing Program (AHP) and implementing agreement, consistent with the Housing Element, be prepared and signed by the Developer. The AHP delineates how, when and where affordable housing units are to be provided, intended subsidies, income and/or rent restrictions, and methods to verify compliance. These programs and policies shall be applied to the San Miguel Ranch SPA development, as detailed in the Affordable Housing Program included as Volume 6 of the San Miguel Ranch SPA Plan Package. The implementation of this program will be a condition of Tentative Map approval, to be entered into between the applicant and the City prior to Final Map recordation.

# CHAPTER III

## CIRCULATION

### ***3.1 Introduction***

The San Miguel Ranch circulation plan provides for extension of existing and planned circulation routes, including both vehicular and non-vehicular circulation networks. The plan includes a hierarchy of roadways organized by function and traffic volumes. The circulation plan will implement access to the community.

The SPA Plan Public Facilities Financing Plan (Volume 4 of this SPA Plan package) establishes a transportation phasing plan with specific improvements and timing of circulation improvements to maintain the levels of service established in the City's Threshold Standards in the City's Growth Management Element of the General Plan.

Specific project access points, and internal circulation, including bicycle, pedestrian, trails and road crossings will be determined by the City Engineer during the tentative map process. Variations to the concepts established by the SPA Plan may occur where safety or efficiency can be enhanced.

The plan also considers non-vehicular circulation systems by making provisions to connect to local and regional trails systems, such as the Chula Vista Greenbelt, to create a comprehensive system of vehicular and non-vehicular routes.

### ***3.2 Existing Circulation Network***

The existing circulation system network is illustrated in Figure 1-1, the Regional Location Map.

#### ***3.2.1 Regional Access***

Regional access is currently provided by I-805, which is located to the west of the project. The future construction of SR-125 will play a role in providing additional regional access for the traffic generated by this project and additional projects planned for the Eastern Territories. The Horseshoe Bend Modified alignment of SR-125 bisects San Miguel Ranch, and an interchange at Mt. Miguel Road is planned within the San Miguel Ranch community.

#### ***3.2.2 Project or Local Access***

Local access to the project site is currently available from the south and west. East H Street and Mt. Miguel Road and the realigned portion of Proctor Valley Road through the Salt Creek I development provide paved access to the southern portion of San Miguel Ranch. Proctor Valley Road to the west and south of San Miguel Ranch provides access to the project area and is recognized as an unimproved public

road maintained by the County. The planned extension of Mt. Miguel Road through the San Miguel Ranch property will provide the primary circulation linkage. Bonita Road provides access from I-805 to central Bonita, and is classified under the County's Circulation Element varying from a four-lane major to a 2-lane collector. The eastern segment of San Miguel Road is presently a two-lane rural collector, which is the designation under the County's Circulation Element.

### **3.3 Proposed Circulation Network**

The amended GDP for San Miguel Ranch provides the major circulation system and access points for the project, but not the internal circulation that serves the residential neighborhood. In the SPA Plan, the entire circulation network is depicted on Figure 1-5. The street system and internal roadway alignments will be addressed to the satisfaction of the City Engineer at the time Tentative Tract Maps are processed. The general tier of circulation improvements are as follows.

#### **3.3.1 Access**

Mt. Miguel Road is proposed as a four-lane class-1 collector road that will provide an important link to help implement the City's Circulation Element by connecting East H Street to Bonita Road. The proposed roadway will carry traffic to local collectors within the development area of San Miguel Ranch. It will also provide access to the proposed SR 125, connect to Proctor Valley Road on the west side of the project, and improve circulation for safety and emergency services.

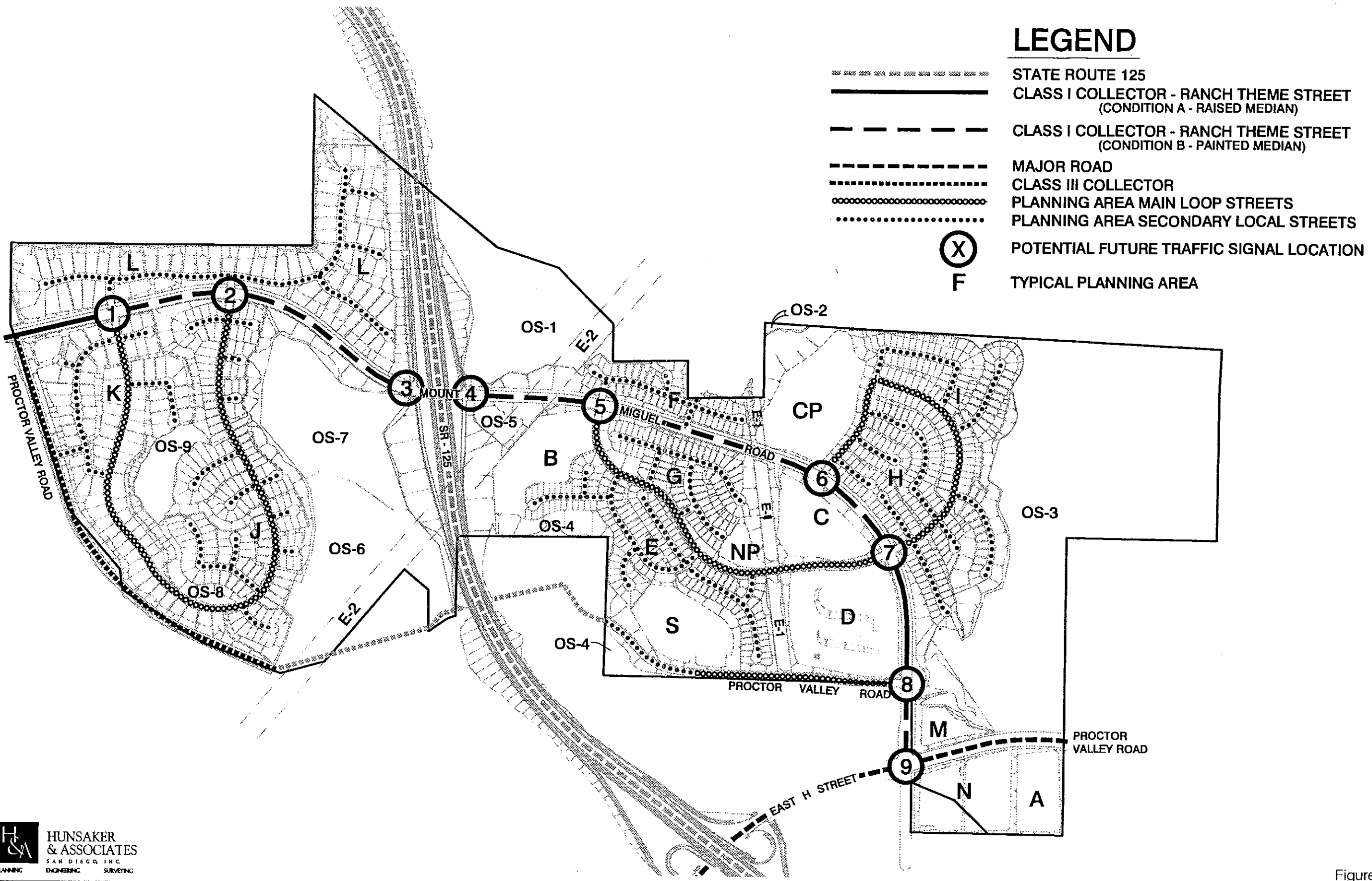
East H Street-Proctor Valley Road will be a six-lane prime arterial, and is a designated scenic highway. Where it enters the site in the southeast corner, the street name changes to Proctor Valley Road and is a six-lane major road. It separates the community services and open space areas north of it to the high-density residential and commercial uses to the south.

Proctor Valley Road along the western and southern limits of San Miguel Ranch will be constructed as a two lane facility per the requirements of the PFFP (Volume 4 of this SPA Plan package).

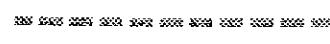




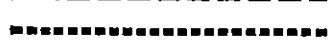
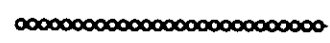


Secondary roads include residential collectors and local streets, will serve the rest of the community and take access from Mt. Miguel Road. An access from Proctor Valley Road is shown into the western portion of San Miguel Ranch.

#### **3.3.2 Proposed Traffic Signals**

Figure 1-5 shows the potential future traffic signal locations along Mt. Miguel Road. At this time, there are seven streets which intersect with Mt. Miguel Road, as well as the on/off ramps of Mt. Miguel Road and SR-125 which are shown as potential signalized intersections. The final determination of the number and locations of signals will be based on traffic signal studies conducted during tentative map review.



# LEGEND

-  STATE ROUTE 125
-  CLASS I COLLECTOR - RANCH THEME STREET (CONDITION A - RAISED MEDIAN)
-  CLASS I COLLECTOR - RANCH THEME STREET (CONDITION B - PAINTED MEDIAN)
-  MAJOR ROAD
-  CLASS III COLLECTOR
-  PLANNING AREA MAIN LOOP STREETS
-  PLANNING AREA SECONDARY LOCAL STREETS
-  POTENTIAL FUTURE TRAFFIC SIGNAL LOCATION
-  TYPICAL PLANNING AREA



# San Miguel Ranch

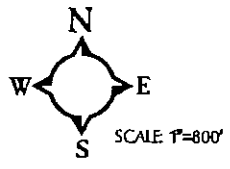


Figure 1-5

## CIRCULATION PLAN

### 3.4 Street Standards

The amended GDP for San Miguel Ranch established the roadway classifications for the major streets in San Miguel Ranch. The proposed SPA street improvements are consistent with the Amended GDP designations. The street sections illustrated in Figures 1-6 through 1-10 show the typical dimensions proposed for each roadway. Provisions for on-street parking, bike lanes, sidewalks and trails within the street right-of-way are also indicated.

Some projects, such as Planning Areas J, K and L, may be proposed as private neighborhoods with gate guarded access. In such a case, the internal streets will be private. Any such private streets shall be constructed to public street standards for paved section and other engineering criteria.

#### ***Mt. Miguel Road - 4 lane Class I Collector (Figure 1-6 and Figure 1-7)***

Mt. Miguel Road is to be a 4-lane Class I Collector, with the addition of a raised, landscaped median at specific locations, and a modified sidewalk/trail configuration to accommodate the multi-purpose greenbelt and equestrian trails. As a backbone road this will carry traffic to and from the Local Residential Streets. This street classification includes a median, which will be painted through most of its length; at the entries to the San Miguel Ranch community, it will change to a raised, landscaped median to enhance the project identification. Except for emergency parking, parking will not be allowed on either side of the roadway. Non-vehicular circulation along this roadway will include bike lanes on the street, and pedestrian facilities in the parkways (sidewalks and trails). The landscape treatment and design elements for this street classification are described in Volume 3, Design Guidelines, of the SPA Plan package.

#### ***Proctor Valley Road (extension of East H Street) east of Mt. Miguel Road - 6 lane Prime Arterial (Figure 1-8)***

Proctor Valley Road east of Mt. Miguel Road, as the extension of East H Street, is a 6-lane facility with a raised landscaped median and bike lanes on the street. The street section has recently been constructed. Future improvements will include pedestrian facilities in the parkways (sidewalks and trails). This roadway is designated a scenic road by the General Plan (Land Use Element, Section 8.1). The landscape treatment and design elements for this street classification are described in Volume 3, Design Guidelines, of the SPA Plan package.

***Proctor Valley Road along Project Frontage East of SR125 - 2 lane Class III Collector Road plus Equestrian Trail (Figure 1-9)***

The segment of Proctor Valley Road within the City limits east of SR125 (from the project boundary at the west of OS-4 and the School site easterly to the intersection with Mount Miguel Road) is to be a 2-lane road with contiguous sidewalks on the south side of the street. There will be a contiguous sidewalk and equestrian trail along the project frontage on the north side of this street. The current configuration and planned extension of this street includes on-street bike lanes, and prohibits parking, except for emergency parking. If it is determined by the City and the school district during school site planning that on-street parking will be provided along the school frontage, the roadway (curb-to-curb section) shall be widened along the north curb line to allow for the addition of an 8-foot wide parking lane in addition to the 5-foot wide bike lane.

***Proctor Valley Road West of SR125 - 2 lane Class III Collector Road (Figure 1-10)***

Proctor Valley Road west of SR125 is planned to be a 2-lane Class III Collector within the City limits. In its ultimate configuration, this road is planned to have a sidewalk on the west side of the street, and an equestrian trail on the east side of the street.

***Local Residential Street (Figure 1-11)***

Local Residential Streets occur throughout each of the Residential Districts. The streets may have homes fronting on one or both sides. Parking is provided along the sides of the streets. Bike travel is permitted in the roadway without specially designated lanes. Streets with sidewalks contiguous to the streets establish a residential streetscape with 4.5 feet of parkway planting adjacent to the 5.5 foot sidewalk. The major loop roads in San Miguel Ranch are identified as locations where non-contiguous sidewalks may be considered for use, subject to a SPA revision, should the City establish a new standard for such a configuration.

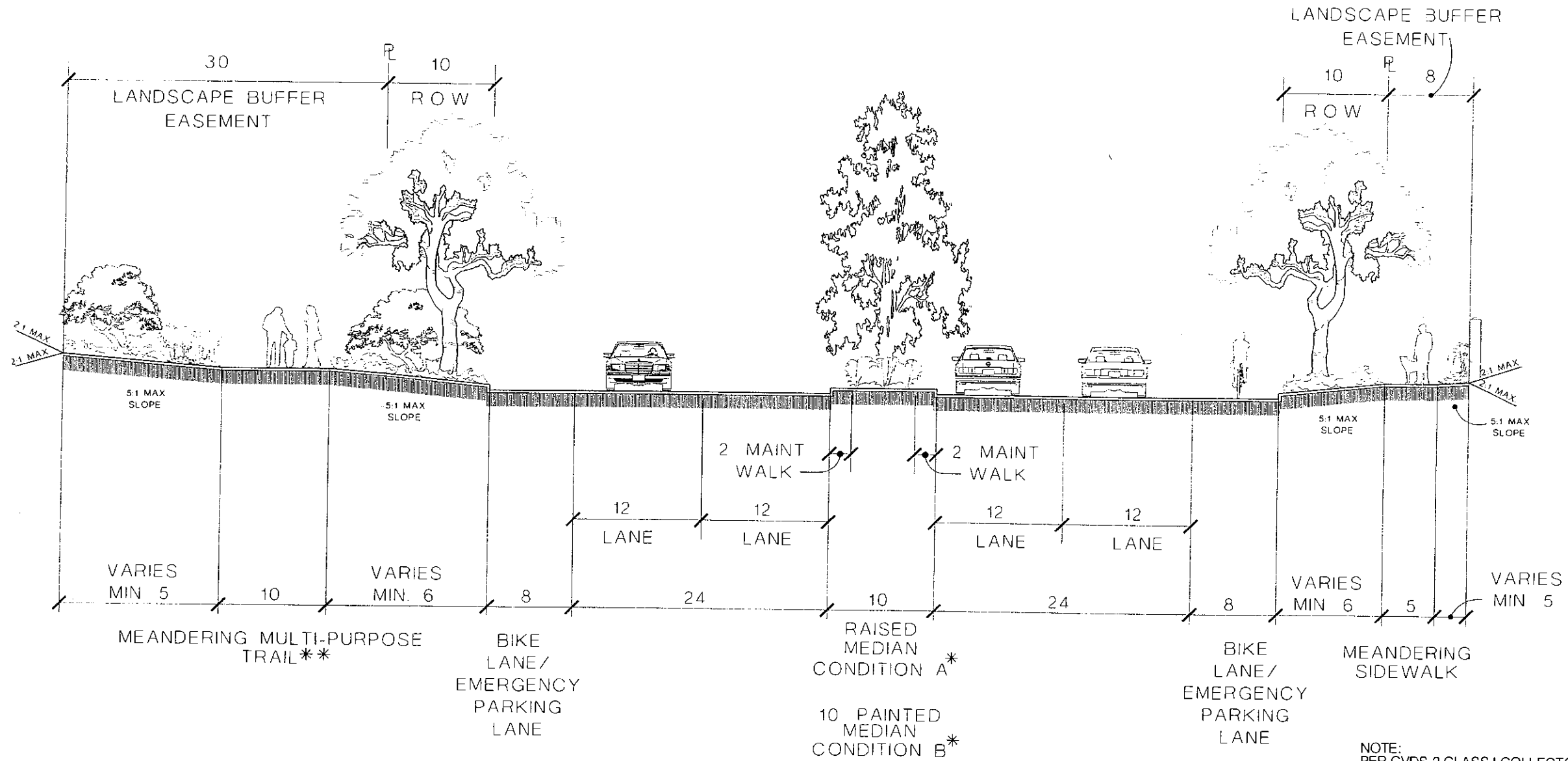
### ***3.5 Phasing of Road Improvements***

The phasing of community development concurrent with provision of adequate road capacity and access improvements is required to maintain an adequate level of service in the circulation system serving San Miguel Ranch throughout the development process. The phasing of backbone roadway improvements relative to development phases is described in the Public Facilities and Financing Plan of the SPA Plan package.

The provision of adequate circulation improvements within individual project neighborhoods will be evaluated and conditioned through the subdivision map process.

NORTH  
SIDE

SOUTH  
SIDE



NOTE:  
+ CONDITION A OCCURS FROM THE ENTRY TO THE FIRST INTERSECTION. CONDITION B OCCURS BETWEEN THE 2 RAISED MEDIANS AND SOUTH OF PROCTOR VALLEY ROAD. SEE FIGURE 1-5 FOR LOCATION

++ MULTI-PURPOSE TRAIL AND SIDEWALK WILL MEANDER IN R.O.W. 10' TRAIL IS STABILIZED D.G. FROM WESTERN PROJECT BOUNDARY TO WESTERN EDGE OF C.P. SITE. 10' TRAIL IS CONCRETE FROM INTERSECTION OF EAST H STREET/ PROCTOR VALLEY ROAD TO INTERSECTION OF MT. MIGUEL RD./ PROCTOR VALLEY ROAD (ADJACENT TO AREA "M")

NOTE:  
PER CVDS-2 CLASS I COLLECTOR STREET EXCEPT FOR LOCATION OF SIDEWALK/TRAIL

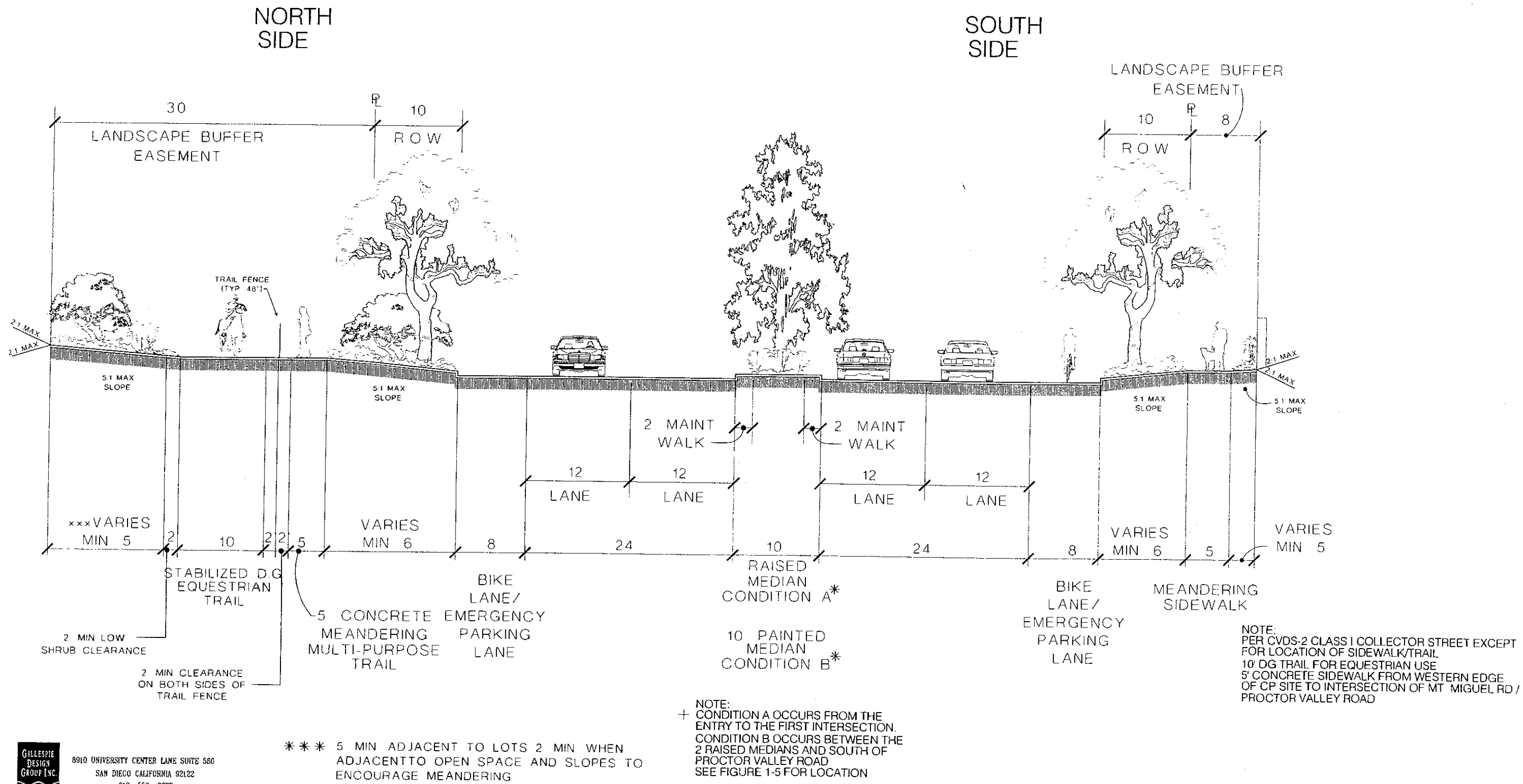
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FAX 619 558 9188

NTS

Figure 1-6

# San Miguel Ranch

## MT. MIGUEL ROAD SECTION - (WITHOUT EQUESTRIAN)



NOTE:  
 + CONDITION A OCCURS FROM THE ENTRY TO THE FIRST INTERSECTION. CONDITION B OCCURS BETWEEN THE 2 RAISED MEDIANS AND SOUTH OF PROCTOR VALLEY ROAD. SEE FIGURE 1-5 FOR LOCATION

\*\*\* 5 MIN ADJACENT TO LOTS 2 MIN WHEN ADJACENT TO OPEN SPACE AND SLOPES TO ENCOURAGE MEANDERING

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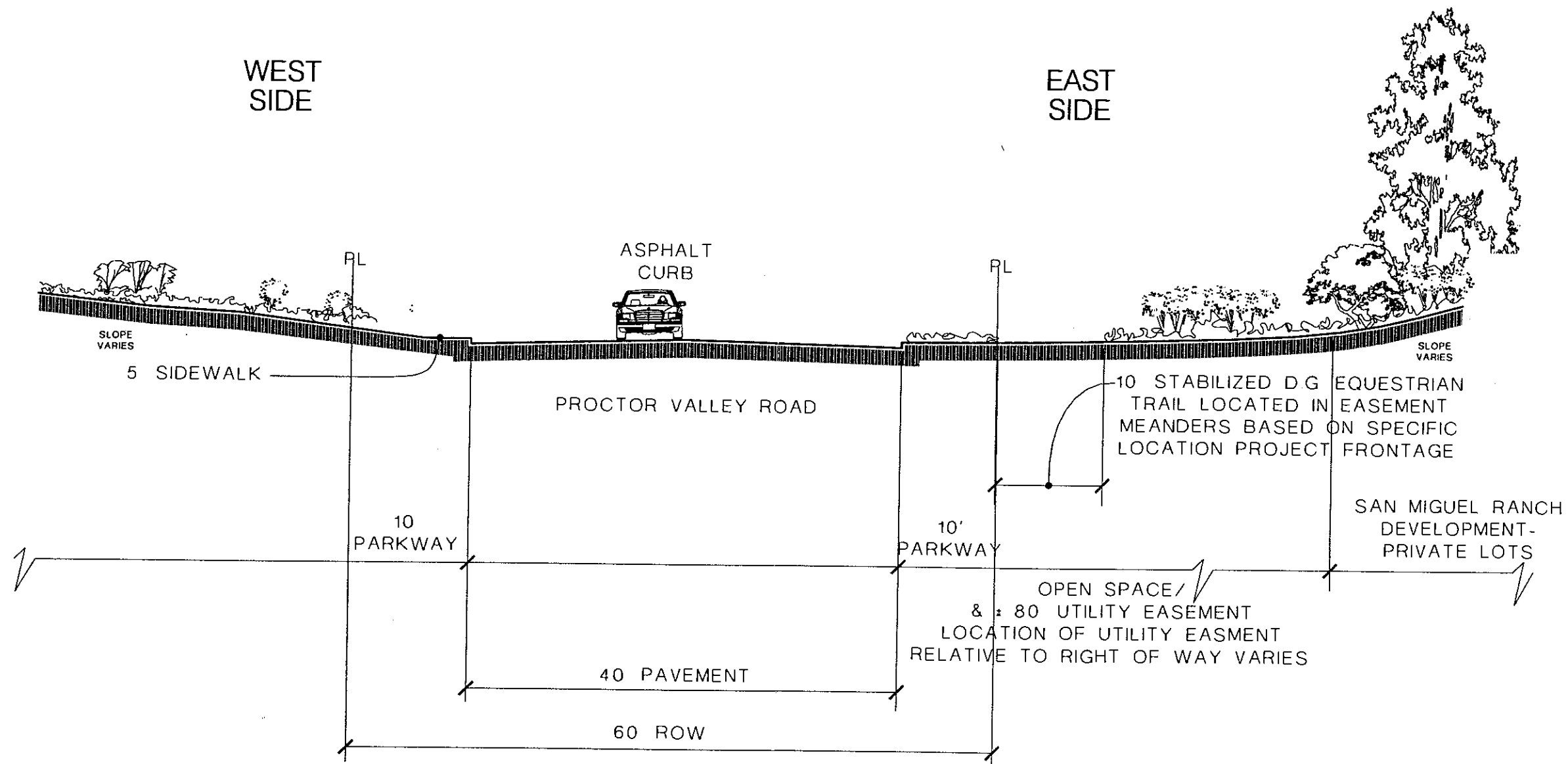
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Figure 1-7

# San Miguel Ranch


## MT. MIGUEL ROAD SECTION - (WITH EQUESTRIAN)





NOTE:  
CONDITION OCCURS FOR PROJECT FRONTAGE ON  
PROCTOR VALLEY ROAD ADJACENT TO AREAS 'K' & 'J'.

NOTE: INTERIM AND ULTIMATE CROSS-SECTION MAY  
BE REVISED PER CITY ENGINEER


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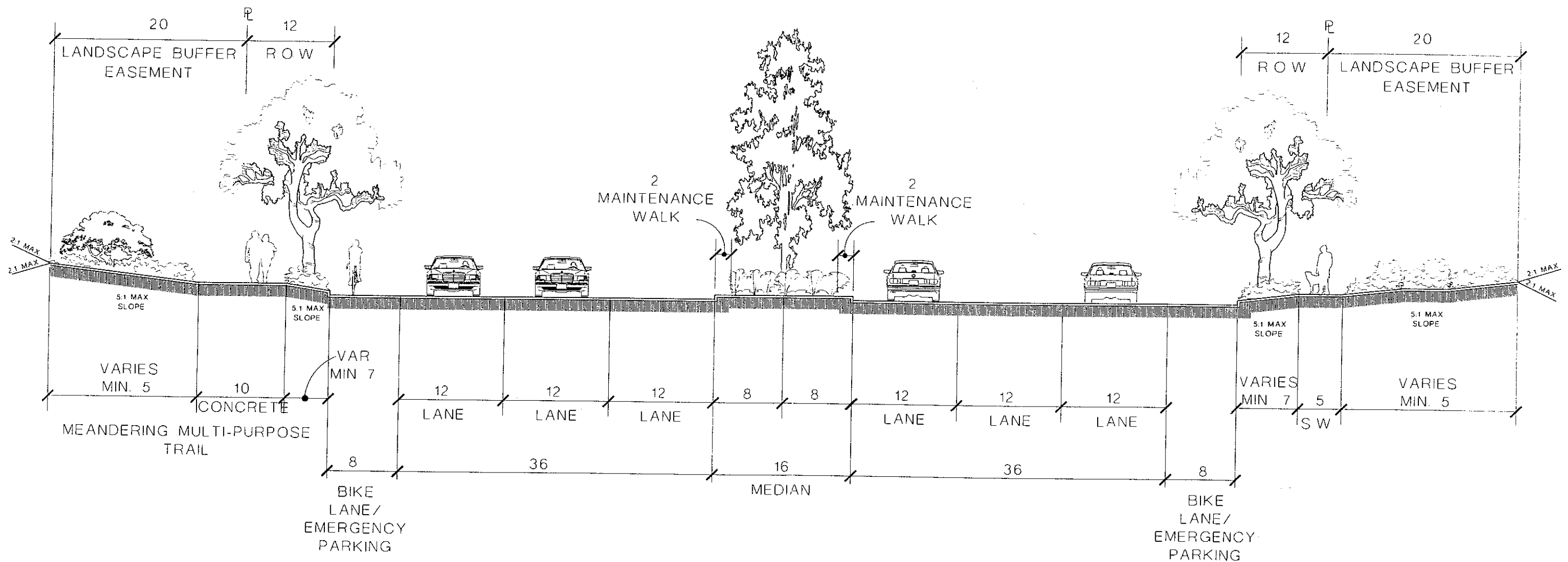
Figure 1-10

# San Miguel Ranch

## PROCTOR VALLEY ROAD - (WEST OF 125)

NORTH  
SIDE

SOUTH  
SIDE



NOTE:  
MULTI-PURPOSE TRAIL AND SIDEWALK  
WILL MEANDER IN AND OUT OF R O W  
SEE FIGURE 1-5 FOR LOCATION

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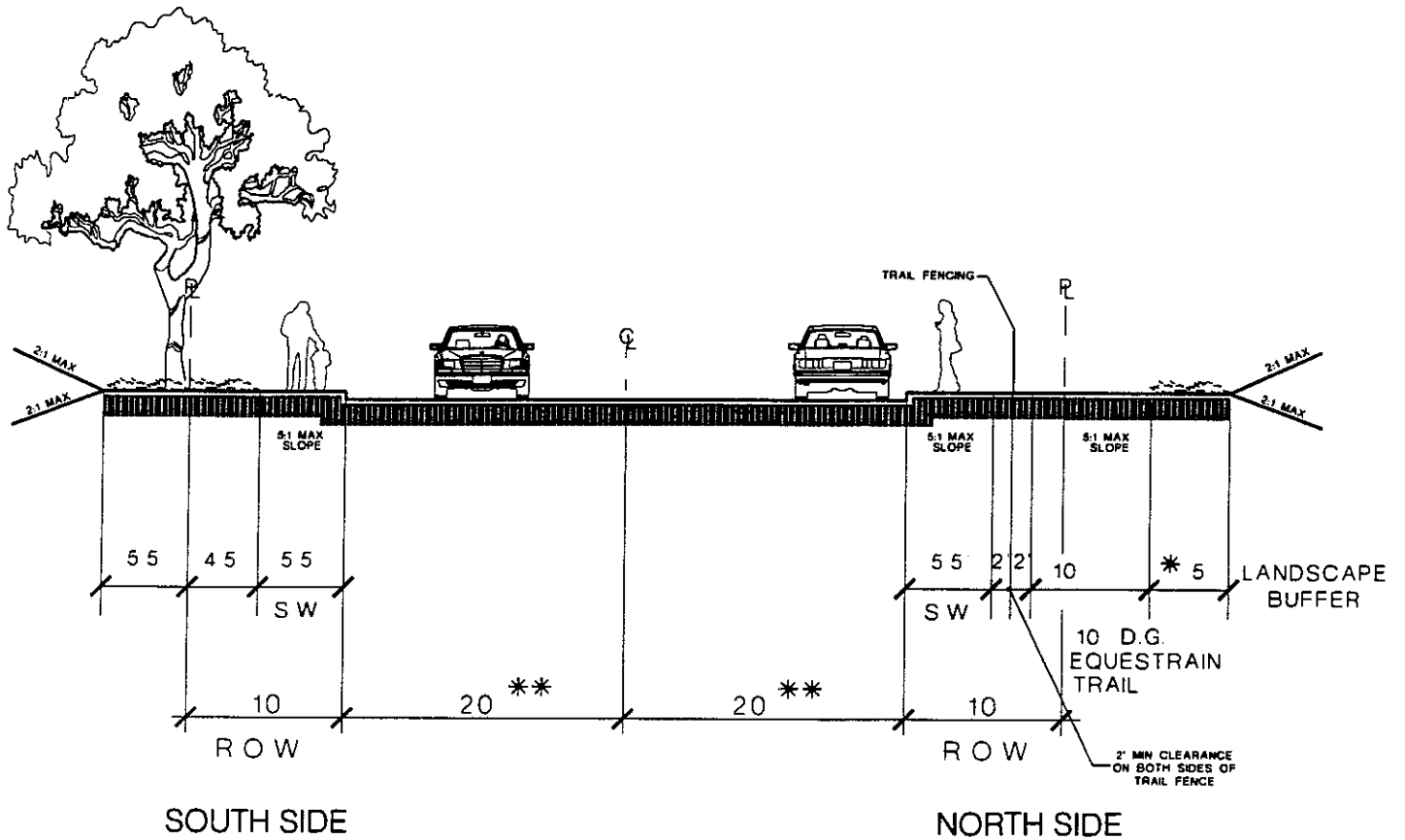
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NOTE:  
PER CVDS-1 6 LANE PRIME ARTERIAL  
EXCEPT FOR LOCATION OF SIDEWALK  
AND TRAIL

Figure 1-8

# San Miguel Ranch

## PROCTOR VALLEY ROAD SECTION EAST OF MOUNT MIGUEL ROAD



## CONTIGUOUS SIDEWALK AND EQUESTRIAN TRAIL

\* 5 ADJACENT TO LOTS  
2 MIN. WHEN ADJACENT  
TO OPEN SPACE AND SLOPES

\*\* PER CVDS-3 CLASS III COLLECTOR STREET  
EXCEPT FOR LOCATION OF EQUESTRIAN TRAIL

NOTE: CONDITION OCCURS ON PROCTOR VALLEY ROAD  
FROM PROJECT BOUNDARY AT WESTERN EDGE OF OS-4  
AND SCHOOL SITE EASTERLY TO INTERSECTION WITH  
MT MIGUEL ROAD



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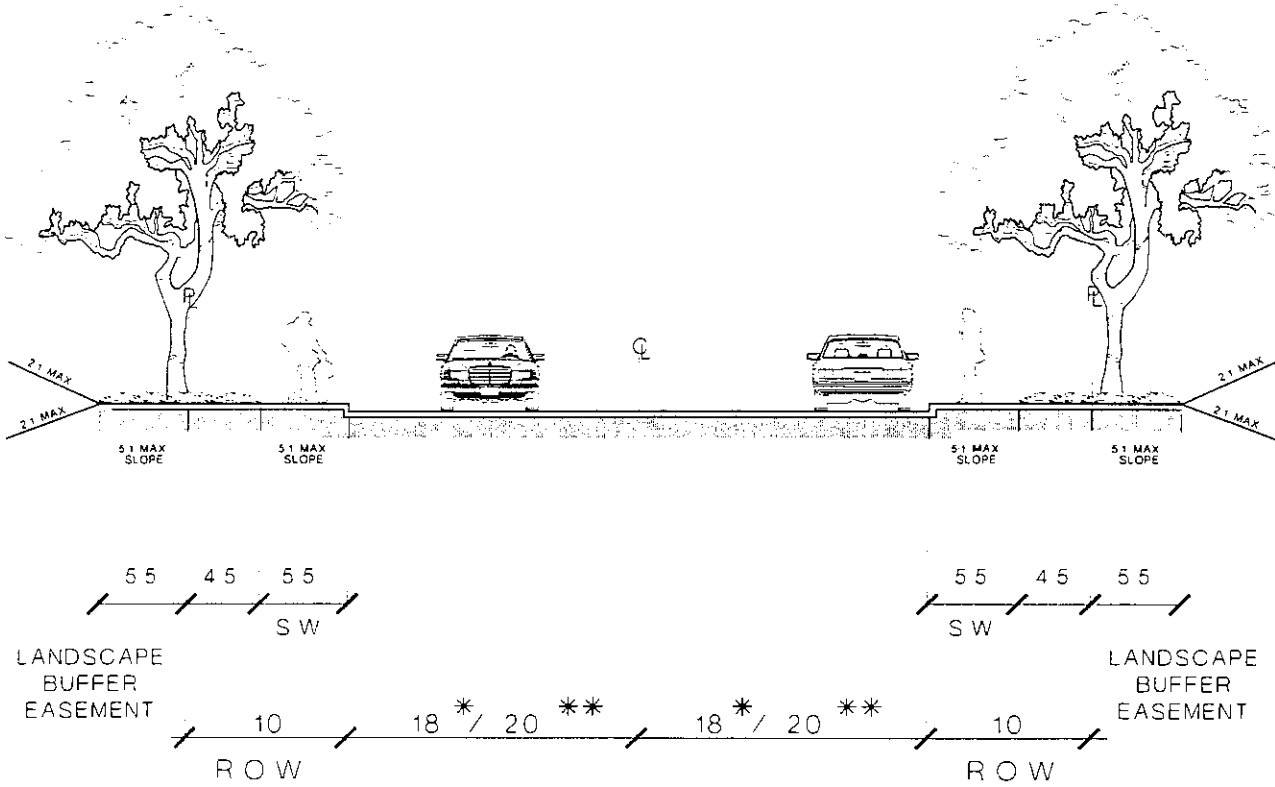
Figure 1-9

# San Miguel Ranch

## PROCTOR VALLEY ROAD SECTION (EAST OF 125)

Vol 1 Page 43

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CONTIGUOUS SIDEWALK  
RESIDENTIAL CONDITION

- \* PER CVDS-4 RESIDENTIAL STREET
- \*\* PER CVDS-3 CLASS III COLLECTOR STREET



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FIGURE 1-11

San Miguel  
Ranch

RESIDENTIAL STREET  
SECTION

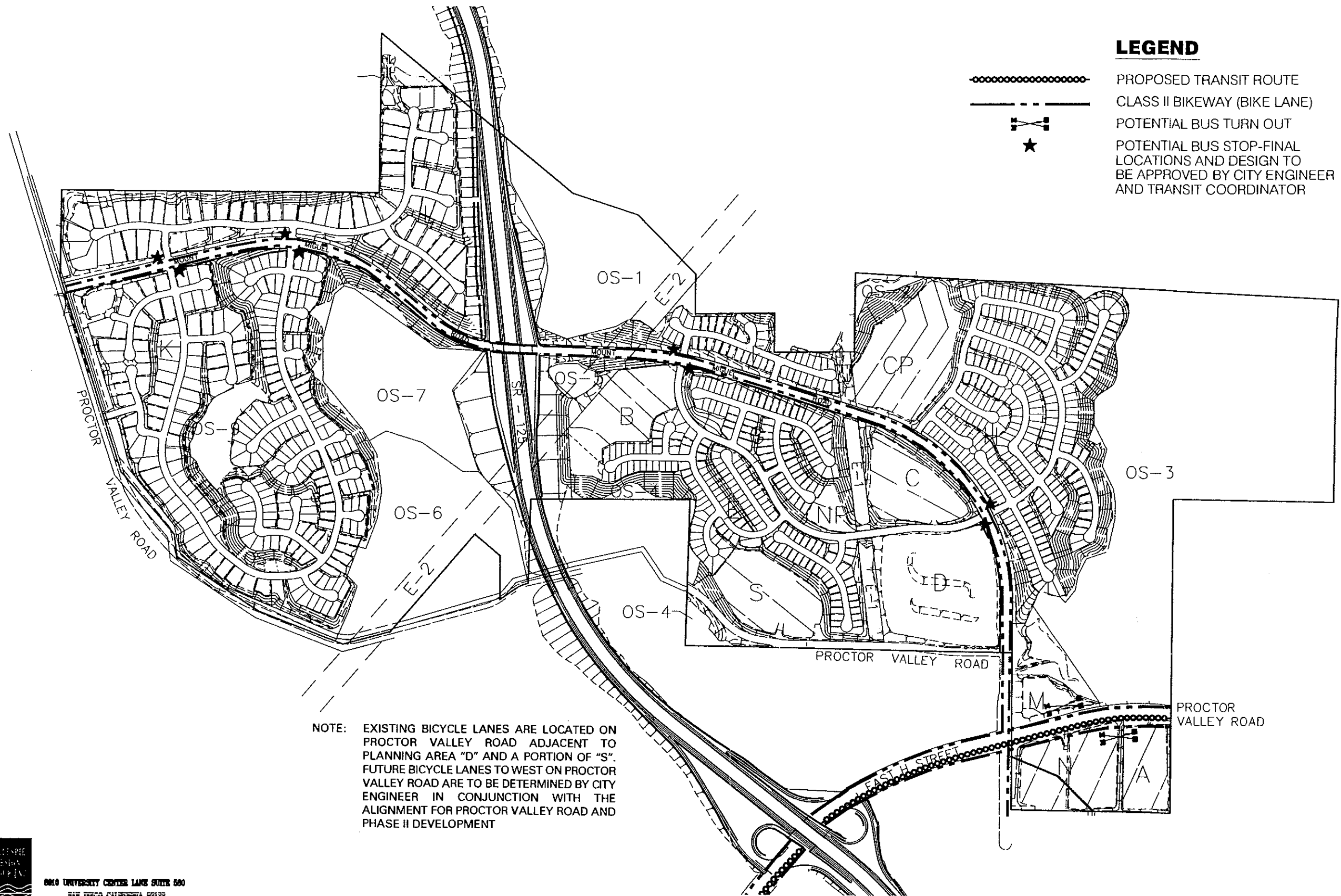
VOL 1 Page 47

### 3.6 Transit Planning Principles

San Miguel Ranch will be served by Chula Vista Transit. As development occurs, Chula Vista Transit expects to extend service eastward along East H Street and Proctor Valley Road, which would provide transit service in the proximity of San Miguel Ranch. As development continues to occur in this area, Chula Vista Transit will be re-evaluating transit service to determine whether bus routing may occur along the northerly extension of Mt. Miguel Road. Figure 1-12 shows potential future locations for bus stops along Mt. Miguel Road. Bus turnouts on Proctor Valley Road, east of its intersection with Mt. Miguel Road are to be provided adjacent to neighborhoods M and N, and their specific locations will be determined by Chula Vista Transit and the City Engineer during site plan review. With the construction of the SR-125 CTV has noted the potential for a park-and-ride facility in the area which could serve the residents of San Miguel Ranch. The GDP identified the Community Purpose Facility site as a location for use or shared use as a park and ride facility.

The need for additional right-of-way to accommodate transit stops, shelters and turnouts within San Miguel Ranch may be identified during subsequent subdivision map review. If additional transit stops are required, the following factors based on general transit planning principles should be considered in determining their final locations. Specific design shall be subject to review and approval of improvement plans by Chula Vista Transit and the City Engineer.

1. Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions is facilitated by locating transit stops near striped intersections.
2. Transit stops should be located and walkways designed to provide access as directly as possible while minimizing impacts to residential privacy.
3. At intersection points of two or more transit routes, stops should be located to minimize walking distance between transfer stops.
4. Transit vehicle conflicts with automobile traffic can be reduced by locating bus turnouts at the far side of intersections in order to permit right-turning vehicles to continue movement.
5. Transit stops should be provided with adequate walkway lighting and well-designed shelters.
6. Walkway/Wheelchair ramps should be provided at transit stops to ensure accessibility to the handicapped.
7. Concrete pad loading areas which meet or exceed the standards set forth in the Americans with Disabilities Act will be provided. This will include a



**LEGEND**

- PROPOSED TRANSIT ROUTE
- CLASS II BIKEWAY (BIKE LANE)
- POTENTIAL BUS TURN OUT
- ★ POTENTIAL BUS STOP-FINAL LOCATIONS AND DESIGN TO BE APPROVED BY CITY ENGINEER AND TRANSIT COORDINATOR

NOTE: EXISTING BICYCLE LANES ARE LOCATED ON PROCTOR VALLEY ROAD ADJACENT TO PLANNING AREA "D" AND A PORTION OF "S". FUTURE BICYCLE LANES TO WEST ON PROCTOR VALLEY ROAD ARE TO BE DETERMINED BY CITY ENGINEER IN CONJUNCTION WITH THE ALIGNMENT FOR PROCTOR VALLEY ROAD AND PHASE II DEVELOPMENT


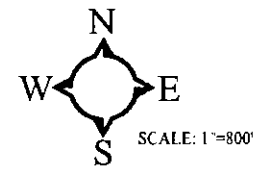

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Figure 1-12

# San Miguel Ranch



wheelchair landing/loading zone to be provided at all bus stops with a minimum dimension of 10 feet by 15 feet. Where there is a landscaped area between the curb and walkway, the landing/loading area should connect to the walkway. Where the walkway is next to the curb, then the landing/loading area should be an extension of the walkway.

### **3.7 Bicycle Routes**

An internal bicycle system is proposed for San Miguel Ranch on Mt. Miguel Road, which will link with the existing and planned bike routes outlined in the City-wide system on East H Street and Proctor Valley Road.

The primary bicycle routes are illustrated on Figure 1-12 and consist of Class II bike lanes. A bike lane is considered an on-street facility designated by a six-inch wide solid white stripe located on the right-hand side of the road. Bike lanes are usually designed for one-way travel in the direction of traffic flow and are typically established on both sides of the street, except through intersections. Bike lanes are proposed on both sides of Mt. Miguel Road and Proctor Valley Road west and east of Mt. Miguel Road.

Bike lanes will be constructed in accordance with Caltrans and City of Chula Vista design standards and criteria to meet current California State Design Standards. Temporary emergency parking for vehicles with mechanical failure is allowed within bike lanes.

Local bike traffic to these planned bike routes through San Miguel Ranch will occur on the remaining residential streets. Within non-residential areas (commercial and community purpose facility) and recreational areas (public and private park areas), bicycle facilities shall be incorporated into the design, including items such as curb cuts, bicycle racks and bicycle storage.

### **3.8 Pedestrian Circulation/Trails**

A system of pedestrian facilities is provided throughout the San Miguel Ranch community, including sidewalks and trails which will link various uses and neighborhoods, provide access to the parks and community facilities, and link San Miguel Ranch with the adjacent regional trail system within the City's greenbelt. The trails also provide limited and controlled access into the open space areas.

The sidewalk circulation plan is shown in conjunctions with the trails plan in Chapter V (Figure 1-14) and illustrates the hierarchy of pedestrian routes planned for San Miguel Ranch. Looped pedestrian systems are provided on sidewalks along the main streets, loop streets and internal residential streets with access to all destinations in San Miguel Ranch. The trails within San Miguel Ranch provide additional pedestrian opportunities, and are described in more detail in Chapter V, Open Space, Trails and Parks.



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# CHAPTER IV

## GRADING

### ***4.1 Introduction***

Some of the most significant and visible characteristics of San Miguel Ranch are its unique landforms and topography, including highly recognized features such as Mother Miguel Mountain, Horseshoe Bend and Gobbler's Knob, as well as less notable, but still distinctive, hillsides, valleys and ridges. The vision for San Miguel Ranch emphasizes respect for the natural features of the land, and the grading design for future development is an important basis for the character of the community.

Due to the existing conditions at San Miguel Ranch, grading and landform alteration guidelines are an important element of this SPA Plan. The GDP established guidelines for grading to be sensitively conducted in order to protect natural topographic features, biological resources, and landforms, and to minimize the amount of landform alteration. Within the site development areas, techniques are to be used so that manufactured slopes will blend with the natural forms and transition to natural open space areas.

The GDP SEIR identified that there would be significant landform impacts associated with development in accordance with the Horseshoe Bend GDP, to accommodate the planned land uses. The SEIR mitigation measures required that there be subsequent analysis during SPA level review to reduce general grading impacts including: general grading plans for the south parcel related to residential development; and demonstrating project compliance with the hillside development guidelines and City landform grading policies. This Chapter of the SPA Plan describes the SPA Grading Concept and Grading Policy Requirements established to assure consistency with these City policy guidelines.

### ***4.2 Grading Concept***

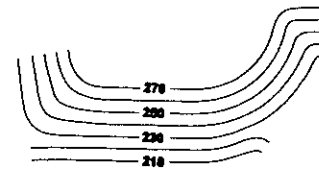
The GDP established guidelines for grading and landform alteration within San Miguel Ranch and defined the general limits of grading on the Conceptual Grading Plan of the GDP. As required by the GDP SEIR, the preparation of this SPA Plan includes a refined grading concept, which is more sensitive to the overall landform characteristics and natural features of San Miguel Ranch than the GDP grading concept. The SPA Grading Plan (Figure 1-13) has been designed for consistency with the GDP guidelines and City policies regarding landform grading and hillside development. Although the Hillside Development Guidelines are not applicable to PC-zoned properties such as San Miguel Ranch, the GDP SEIR required they be addressed in this SPA. The landform grading requirements of the Chula Vista General Plan, Municipal Code and the grading policies of this San Miguel Ranch SPA address the concerns of the Hillside Development Guidelines.

The SPA Plan grading and design policies will preserve additional natural slope areas in permanent open space, and within the site development areas, techniques are to be used so that manufactured slopes will blend with the natural forms and transition to natural open space areas. In addition, the SPA Plan represents a substantial reduction in the quantity of grading from the GDP grading scheme.

The following list presents a summary of how the SPA Grading Plan on Figure 1-13 is designed to comply with the grading policies of the GDP and this SPA Plan. This Grading Plan is preliminary and will be refined as part of the subsequent Tentative Map process.

- The SPA Grading Plan design will result in the preservation of major landforms including visually prominent slopes, ridges, and habitat areas within OS-1, OS-3, OS-6, OS-7 and OS-9.
- Grading within the development areas is designed to be sensitive to the existing landforms. Although major landform alteration is needed to develop the designated land uses, the SPA grading plan retains a greater area of landforms and natural vegetation on the property than shown on the GDP conceptual grading plan. It reduces the overall earthwork by over 20 percent, from approximately 9.8 million cubic yards on the GDP Grading Plan to approximately 7.7 million cubic yards as shown on the SPA Grading Plan.
- The SPA Grading Plan has emphasized respect for landform relationships, so that where the high points in the topography occur, there is a high point in the design.
- In developing the SPA Grading Plan, the underlying existing contours were respected, and the development design generally follows contours, working with them to minimize slopes up against open space
- The SPA Grading Plan makes extensive use of curvilinear streets to help development conform to the current landforms and minimize grading. The design also uses cul-de-sacs to allow street and lot grades to work with the topography, rather than requiring extensive cut and fill grading, while utilizing the resulting slope and open space areas to retain pedestrian connections and trails within and between neighborhoods. Single-loaded streets are also used where needed to preserve open space and minimize slopes.

# LEGEND



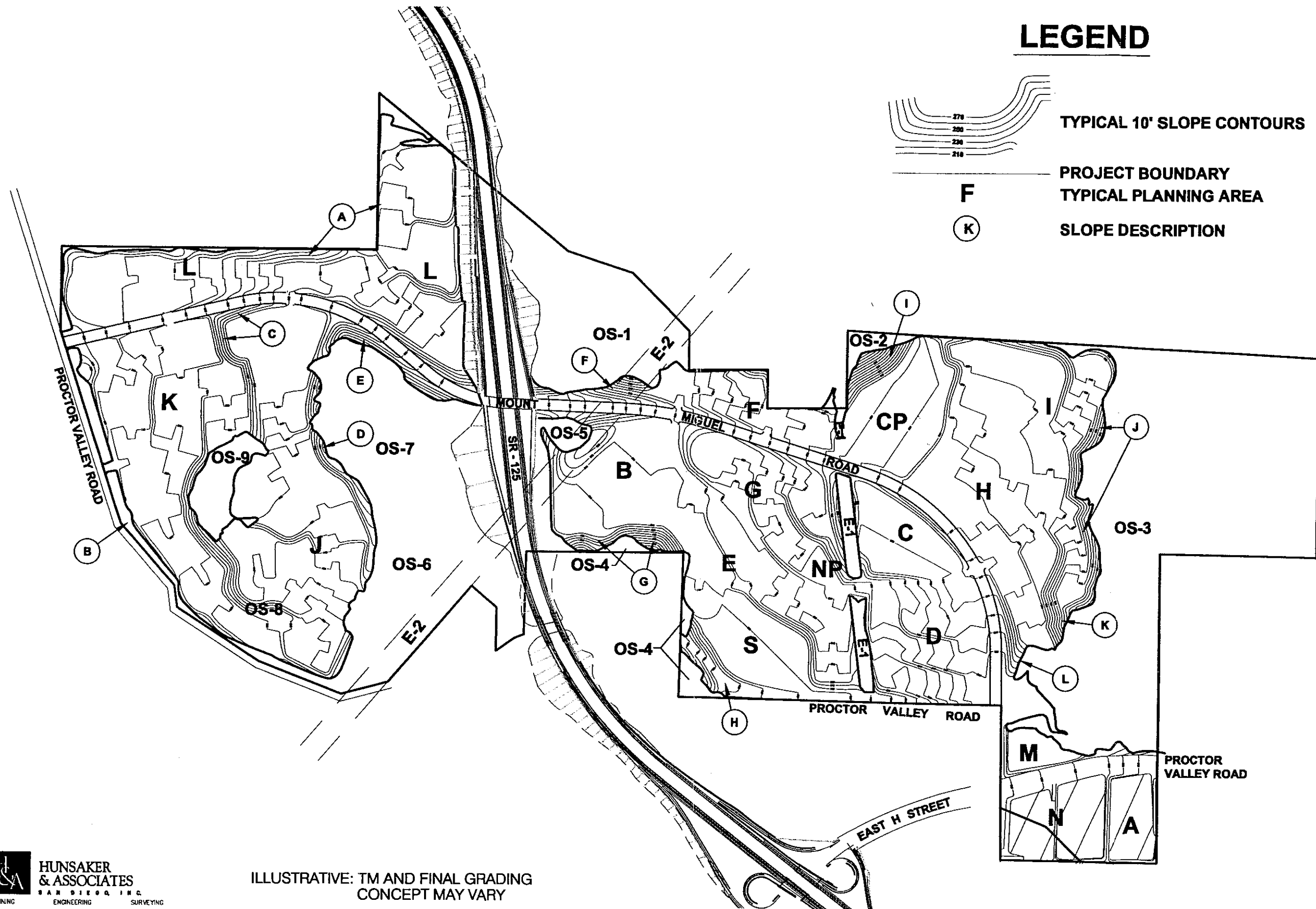
TYPICAL 10' SLOPE CONTOURS

PROJECT BOUNDARY  
TYPICAL PLANNING AREA

F

K

SLOPE DESCRIPTION



### 4.3 Grading Requirements

In order to ensure that subsequent grading plans manifest the intent of the City's policies regarding landform grading and hillside development, final grading design to implement the SPA Plan shall be consistent with the grading design concepts of the SPA Grading Plan, and shall adhere to the following grading standards and policies.

#### 4.3.1 Landform Grading

Within San Miguel Ranch, the grading plan is based upon the principles of landform grading, including contour grading that uses man-made slopes which have curves and varying slope ratios designed to simulate the appearance of surrounding natural terrain. As required by the Chula Vista General Plan policies, conventional grading with standard, uniform 2:1 slope faces should be restricted to those areas where adherence to landform grading principles would clearly not produce any significant contribution to the General Plan's goals for high-quality site planning. Conventional grading is generally appropriate only where landform grading is demonstrated to be impractical or the slope is in a very low visibility situation. The fact that landform grading may not produce the maximum size of building pad or development area is not sufficient justification for determining that landform grading is impractical. This section includes the slope grading policies for San Miguel Ranch and a summary of the conceptual slope design which is shown on Figure 1-13.

#### *Slope Grading Policies*

Specific policies for slope grading are as follows:

- A. The tops and toes of all major slopes in public view shall be rounded in accordance with the City Standard Drawings (CVMC 15.04.065).
- B. All man-made slopes shall be blended into existing terrain to produce a natural-appearing transition from the face of man-made slopes into natural ground. This blending shall be accomplished in accordance with City Standard Drawings. Undulating top and toe of slopes and variable slope ratios should be used to achieve natural-appearing slopes (CVMC 15.04.070), and to enhance blending.
- C. Horizontal slope rounding shall be accomplished in accordance with the City Standard Drawings (CVMC 15.04.075).
- D. When significant landforms are modified for project implementation, the landform shall be contoured and rounded to blend into the natural grade, consistent with the principles of landform grading. In addition, vegetation shall be used to further soften the appearance of manufactured slopes, and to simulate a contoured landform through the use of landscaping techniques. The arrangement of plant materials, as well as the use of vegetation with varying heights, can

enhance the effect of a horizontally and vertically undulating slope terrain.

- E. The maximum gradient for any manufactured slopes (cut or fill) will generally not exceed 2:1. If, during the grading/construction phases of the project, it is necessary to grade a slope at steeper than 2:1, the proposed slope will require approval from the City Engineer and Director of Planning and Building, with grading recommendations from the Geotechnical Engineer to be shown on the grading plans.
- F. All manufactured slopes (cut or fill) shall be landscaped and irrigated to ensure adequate plant establishment and slope stability, reduce erosion, and enhance their visual appearance.
- G. Groundcovers and some shrubs may be hydroseeded to insure a quick vegetative cover of slopes and to reduce erosion.
- H. Transitional slopes and graded areas adjacent to natural, ungraded terrain should be planted with native and naturalized plant species to provide a subtle blending between manufactured and natural slopes, and to meet fuel modification requirements.
- I. The visually prominent slopes within the project (slopes along Mount Miguel Road and along the project's periphery) shall be graded to reflect natural land forms using variable slope ratios and curvilinear, freeform contouring consistent with landform grading requirements. Use of 2:1 slopes with straight, parallel contours should be avoided.

#### ***Guidelines for Landform Grading Areas***

Figure 1-13 identifies some of the more visible, graded slope areas within San Miguel Ranch. Within each of these key areas, landform grading techniques must be used for conformance with the SPA grading policies and City landform grading policies. Not all areas will include every component of landform grading, but will incorporate the appropriate combination of techniques such as rounding, curves and varied slope ratios in context with the surrounding site topography. Variations in slope gradient, rounding and undulation should approximate that topography. A summary of the techniques to be used for each identified slope are listed as follows. Specific slope review and approval will be required during subsequent Tentative Map and grading plan review.

#### ***Slope A***

This includes the slopes located along the northern boundary of neighborhood L.

- These slopes shall undulate horizontally (curvilinear).
- Slope gradients shall vary along the length of the slope.

- Manufactured slopes shall generally follow the underlying topography.
- Slopes shall be set back from the property boundary opposite from where there are offsite existing homes.

#### ***Slope B***

This slope is located along the western project boundary.

- This slope shall undulate horizontally (curvilinear) to give visual interest.
- Slope gradient shall vary from 2:1 to 7:1 along the length of the slope.
- Manufactured slopes should follow the underlying topography.
- Manufactured slopes shall blend into the natural slopes in smooth curves.

#### ***Slope C***

This slope is located between neighborhoods J and K and also fronts along the south side of Mount Miguel Road. The underlying topography has an existing slope gradient which varies from close to 1:1 to 3:1 and 4:1, with the majority of the existing topography in this area at approximately 2:1.

- This slope may utilize 2:1 slopes consistent with the underlying topography. However, the slopes must have horizontal undulation to avoid a uniform manufactured appearance. At the corner, the slope gradient shall vary from 2:1 to 4:1 in order to soften the corner effect and provide a more natural appearing slope.
- The toe of slope adjacent to Mount Miguel Road shall be rounded, and should transition to the 8-foot landscape easement along this street, which is 5:1 and runs parallel to the slope.

#### ***Slope D***

This includes the slopes along the eastern edge of Neighborhood J, adjacent to OS-6 and OS-7.

- Slopes in this area adjacent to OS-6 and OS-7 may be 2:1, in order to minimize encroachment into the adjoining open space areas which include steep slopes and, in some locations, Otay Tarplant.
- All slopes shall be curvilinear and undulate horizontally.
- The manufactured slopes shall be feathered to blend into the existing topography with softened curves and varying slope ratios.

#### ***Slope E***

This slope is adjacent to OS-7 and the south side of Mount Miguel Road. The existing underlying topography is a sharp, curving nose of a ridge trending downward to the northwest, with existing 2:1 and steeper side slopes.

- The slope shall be designed to mimic and blend with the existing underlying topography.
- The corner of this slope shall be rounded to minimize any corner/edge effect.
- The slope shall undulate horizontally to avoid a manufactured appearance, and enhance the blending.

***Slope F***

This slope is adjacent to OS-1 and the north side of Mount Miguel Road. The 30-foot landscape easement along Mount Miguel Road provides some visual setback to this slope.

- The slope shall use sweeping curves to tie smoothly to the existing topography and shall have gradients that vary from 2:1 to approximately 6:1.
- The toe of slope adjacent to Mount Miguel Road shall be rounded and undulate to provide a softening effect along this street.

***Slope G***

This slope is located south of neighborhood B.

- The slope shall be curvilinear, and shall have gradients that vary from 2:1 to approximately 4:1.
- The manufactured slope shall transition smoothly to the adjacent natural slopes, and shall be concave to mimic the existing natural finger canyon.

***Slope H***

This slope is located north of Proctor Valley Road along the southern edge of the school site.

- This slope shall be horizontally curvilinear and shall transition smoothly to the existing natural topography.
- The slope shall have gradients that range from 2:1 to approximately 4:1.

***Slope I***

This proposed slope is north of the Community Park site.

- The slope should be curvilinear and concave to the north.
- The slope gradient should vary from 2:1 to approximately 8:1 and is proposed to re-create a natural looking canyon.
- The top and toe of this slope shall be rounded as a transition.

***Slope J***

This area includes slopes adjacent to the easterly open space of OS-3. The existing topography above the proposed manufactured slopes is steep, with slope gradients primarily between 2:1 and 3:1.

- These manufactured slopes shall be curvilinear and follow the underlying contours of the topography.
- All corners shall be rounded with long smooth curves that tie to the natural topography
- Slope gradients shall vary from 2:1 to approximately 3:1 along the length of the slope.



### ***Slope K***

This area includes slopes adjacent to the easterly open space of OS-3. The existing topography above the proposed manufactured slopes is steep, with slope gradients primarily between 2:1 and 3:1.

- These manufactured slopes shall be curvilinear and follow the underlying contours of the topography.
- All corners shall be rounded with long smooth curves that tie to the natural topography
- Slope gradients shall vary from 2:1 to approximately 3:1 at various locations along the length of the slope.

### ***Slope L***

This slope is located between the easterly side of Mount Miguel Road and neighborhood H.

- The slope shall be rounded to smoothly transition to the natural topography to the east, with a rounded and flattened corner.
- The slope gradient shall vary from 2:1 to approximately 5:1.
- The toe of slope adjacent to Mount Miguel Road shall be rounded, and should transition to the 30-foot landscape easement along this street which is 5:1 and runs parallel to the slope.
- This slope shall undulate horizontally (curvilinear) to avoid a uniform, manufactured appearance.

## ***4.3.2 Limits of Grading***

The grading limits shown on the SPA Grading Plan generally conform to the Conceptual Grading Plan in the approved GDP, although the proposed SPA Grading Plan will grade fewer total acres. Based on a comparison between the GDP and SPA Grading Plans, the SPA design reduces the limits of grading by approximately 32 acres, a 7% reduction from the GDP. The total quantity of grading is also reduced by approximately 2 million cubic yards, a 21% decrease from the GDP Grading Plan. The majority of this reduction occurs on the west side of SR-125 in order to be more sensitive to the general configuration of the landforms in this area. Modifications in the SPA grading limits may be allowed subject to the following criteria.

- A. The anticipated limits of grading for the overall San Miguel Ranch are illustrated in Figure 1-13. Final grading for each neighborhood will be established in conjunction with review and approval of the Tentative Map for each individual development, and must conform to the SPA grading policies of this Chapter. Minor modifications or adjustments in the grading limits shown on Figure 1-13 may be allowed without an amendment to the SPA Plan, subject to the discretion of the Director of Planning and Building.

- B. Within an individual tentative map, the specific location and alignments of local streets and internal slopes can be modified without an amendment to this SPA Plan, if such changes result in an overall grading plan that is equivalent to the SPA Grading Plan, subject to the discretion of the Director of Planning and Building.
- C. Grading shown on this plan is for earth movement only. There may be fuel modification beyond the limits of grading as shown on Figure 1-13, subject to the discretion of the Fire Marshall, and consistent with provisions established for any sensitive biological areas.
- D. Grading in the designated open space areas should be minimized, but may be allowed for construction of wetland/habitat mitigation, trails, viewpoints, utilities and access to them. These types of grading in open space may be reviewed at time of tentative map application or with separate grading plan and associated environmental review. Where open space areas are to remain undisturbed, and will be located adjacent to grading activities, temporary fencing shall be installed along the boundaries of the open space prior to and during the grading activities to provide identification and protection of the open space.
- E. The grading and alignment for SR125 as shown on Figure 1-13 is based on the best available information at time of publication, but is subject to change by Caltrans/CTV based on their final design. The grading shown in areas adjacent to SR125 may be modified to accommodate/reflect the final SR125 grading, without an amendment to the SPA Plan, as long as the overall intent of the SPA (e.g. land uses, open space, and density) is maintained, subject to the discretion of the Director of Planning and Building.
- F. Within Neighborhoods M, N, and A, adjustments in grading may be made without a SPA amendment, subject to the following criteria and the discretion of the Director of Planning and Building:
  - The final elevations don't substantially change the intent of the grading as shown on Figure 1-13;
  - The limits of the adjacent open space are not changed; and
  - The change in grading is needed to balance the site.

### 4.3.3 Grading Quantities

- A. The earthwork is intended to be balanced within each Sub-Area of San Miguel Ranch. The preliminary earthwork for the East subarea is 5,516,000 cubic yards of cut and fill. The proposed earthwork for the West subarea is 2,183,000 cubic yards of cut and fill.

- B. The actual quantities may vary from these numbers, based on more detailed engineering at the tentative map, grading plan and final map stages.
- C. A grading plan is required for all stockpiling of fill.
- D. Permanent or temporary deposit of fill on any open space lot or preserve is prohibited.

#### **4.3.4 Erosion Control**

- A. Erosion control is required for all graded areas.
- B. Erosion Control Plans are required for all grading operations, and will be reviewed in conjunction with individual grading plans. Measures will comply with city standards, and may include a combination of temporary and permanent measures such as sandbags, detention, and landscaping.

#### **4.3.5 Drainage Design**

- A. All development areas and lots will be designed so that surface drainage will be directed to street frontages, approved natural watercourses, or improved easements with appropriate control devices.
- B. On-site detention basins will be utilized to minimize and control downstream runoff to the satisfaction of the City Engineer. Drainage detention is further discussed in Section 7.5 of this SPA Plan.

#### **4.3.6 Roadways**

- A. Roadways will be developed according to the City of Chula Vista engineering design criteria and Caltrans Design Standards.
- B. Along Mount Miguel Road, there will be enhanced landscape setbacks beyond the 10-foot parkway within the street right-of-way. On one side of the street this will be an additional 8 feet, for a total of 18 feet, and on the opposite side will be an additional 30 feet, for a total of 40 feet. Contour grading may be used in some of the setback areas outside of the right-of-way along Mount Miguel Road to reinforce the parkway character of the roadway, with a maximum slope gradient of 5:1.
- C. The use of 2:1 slopes shall be minimized pursuant to the SPA grading requirements, but may be used along public roadways in downslope conditions where the slopes are not visible from the roadway.

- D. Curvilinear streets and slopes are to be used to work with the existing topography, to provide visual interest and to minimize straight, hard-edged slopes.

#### **4.3.7 Soils Reports**

- A. Preliminary soils and geotechnical reports have been prepared for San Miguel Ranch and have identified the site as being suitable for development proposals. More refined studies will be provided at the final engineering stages of this project.

#### **4.3.8 Grading Review**

- A. Tentative Maps and grading plans will require conformance to the grading concepts and requirements contained in this SPA, and to all applicable City policies and ordinances.
- B. Prior to grading plan approval by the City Engineer, all grading will be subject to the requirements of the Chula Vista Municipal Code (Grading Ordinance #1797), the City of Chula Vista Subdivision Manual, Design and Construction Standards of the City of Chula Vista, San Diego Area Regional Standard Drawings, and Standard Specifications for Public Works Construction.

# CHAPTER V

## OPEN SPACE, TRAILS AND PARKS

### 5.1 *Introduction*

The San Miguel Ranch will include a variety of recreational amenities throughout the community, including both active and passive uses. The SPA Plan identifies the locations for open space, parks and trails in this portion of the City of Chula Vista.

Public recreation facilities will be provided in the Community Park within San Miguel Ranch to serve the needs of the local and nearby residents. A community park of 21.6 gross acres will be located in the east portion of the property adjacent to the City's Greenbelt. Additionally, one three-acre private neighborhood park will be provided within the central portion of the east side of the project. Additional privately maintained local parks are planned for several areas on the east and west sides of the project.

### 5.2 *Open Space / Natural Habitat*

A total of 2,065 acres, or 80 percent, of the original San Miguel Ranch ownership was devoted to the creation of an ecological reserve for the preservation and protection of sensitive lands and natural resources in accordance with the City's draft Sub Area Plan and the draft MSCP/NCCP Program. Established as part of the National Wildlife Refuge in August of 1997, this reserve encompasses the entire 1,852-acre North Parcel consistent with the GDP. An additional 213 acres in the South Parcel addressed by this SPA Plan are designated for preservation to further mitigate impacts to the area per the Conservation Bank Agreement. The open space preserve areas include the designated Otay Tarplant preserve (OS-1 and OS-6); the eastern portion of the South Parcel (OS-3) will remain as natural open space, preserving the ridgeline and prominent rock outcroppings as well as the sensitive habitat located in that area; additional natural open space (OS-7) will be provided in the western portion of the South Parcel adjacent to the Low and Low Medium development areas of the project. These open space areas of the South Parcel provide a significant natural habitat component within San Miguel Ranch. All open space lots shall be granted to the City through an Irrevocable Offer of Dedication with the option to grant individual open space lots to other non-profit agencies for maintenance purposes.

This proposed natural habitat plays a major role in defining the development patterns for the San Miguel Ranch community. All of the residential land uses are either adjacent to or in close proximity with the habitat and open space areas. This design provides a dramatic backdrop to the San Miguel Ranch community. In addition, the open space of San Miguel Ranch will be a key segment of the City's greenbelt. The greenbelt will be connected by trails from within San Miguel Ranch.

### 5.3 Trails

San Miguel Ranch is served by four types of trails. These include:

- Greenbelt/Multi-Purpose trails;
- Equestrian trails;
- Regional trails; and
- Community trails.

These trails provide non-vehicular circulation throughout the community linking San Miguel Ranch with the adjacent regional trail system within the City's greenbelt. The trails also provide limited and controlled access into the open space areas and provide access for San Miguel Ranch neighborhoods to the parks and community facilities. Figure 1-14, Trails Map, shows the location of the main framework of the Trails system.

#### ***Greenbelt / Multi-Purpose Trail***

The City of Chula Vista's General Plan describes the Greenbelt Trail as a continuous 26-mile loop trail that circumvents the city. Within the San Miguel Ranch community, the trail is proposed to be located along the north and east sides of Mount Miguel Road and the north side of Proctor Valley Road (as the easterly extension of East H Street), and will include both concrete and stabilized decomposed granite surfaces depending on the segment and shared trail uses. It will be constructed of stabilized decomposed granite from the western project boundary to the western edge of the Community Park site. At this point it will coincide with a section of the equestrian trail, and be 5-foot wide concrete adjacent to the 10-foot wide decomposed granite equestrian trail up to the intersection with Proctor Valley Road (westerly of Mount Miguel Road). For the most southerly portion of Mount Miguel Road and the segment of Proctor Valley Road (as the easterly extension of East H Street), it will transition to 10-foot wide concrete to connect with the existing offsite segment in Rolling Hills Ranch. Figures 1-15 and 1-16 illustrate the typical sections for a Greenbelt Trail.

#### ***Regional Equestrian Trail***

The segment of the regional equestrian trail through San Miguel Ranch is designed to create interconnection between an area-wide equestrian and hiking trail system. The equestrian trail will be designed to city standards, including a width of 10 feet and constructed of stabilized decomposed granite within the San Miguel Ranch project boundaries. Trail fencing will be provided on one side of the trail for identification and separation from adjacent downslopes and walkways where they occur. The location of the equestrian trail is on the east side of Proctor Valley Road adjacent to Neighborhoods J, K and L as a meandering 10-foot wide trail. This will connect offsite to an existing dirt segment of Proctor Valley Road which will serve as a portion of the equestrian trail until Proctor Valley Road is completed. When the trail reaches the project boundary at OS-4 and the School site, the trail continues as a 10-foot wide decomposed granite trail adjacent to a 5-foot concrete sidewalk up to

**LEGEND**

- OS OPEN SPACE
- CP COMMUNITY PARK - PUBLIC
- NP NEIGHBORHOOD PARK - PRIVATE
- P LOCAL PARK - PUBLIC

**MULTI PURPOSE TRAIL SYSTEM**

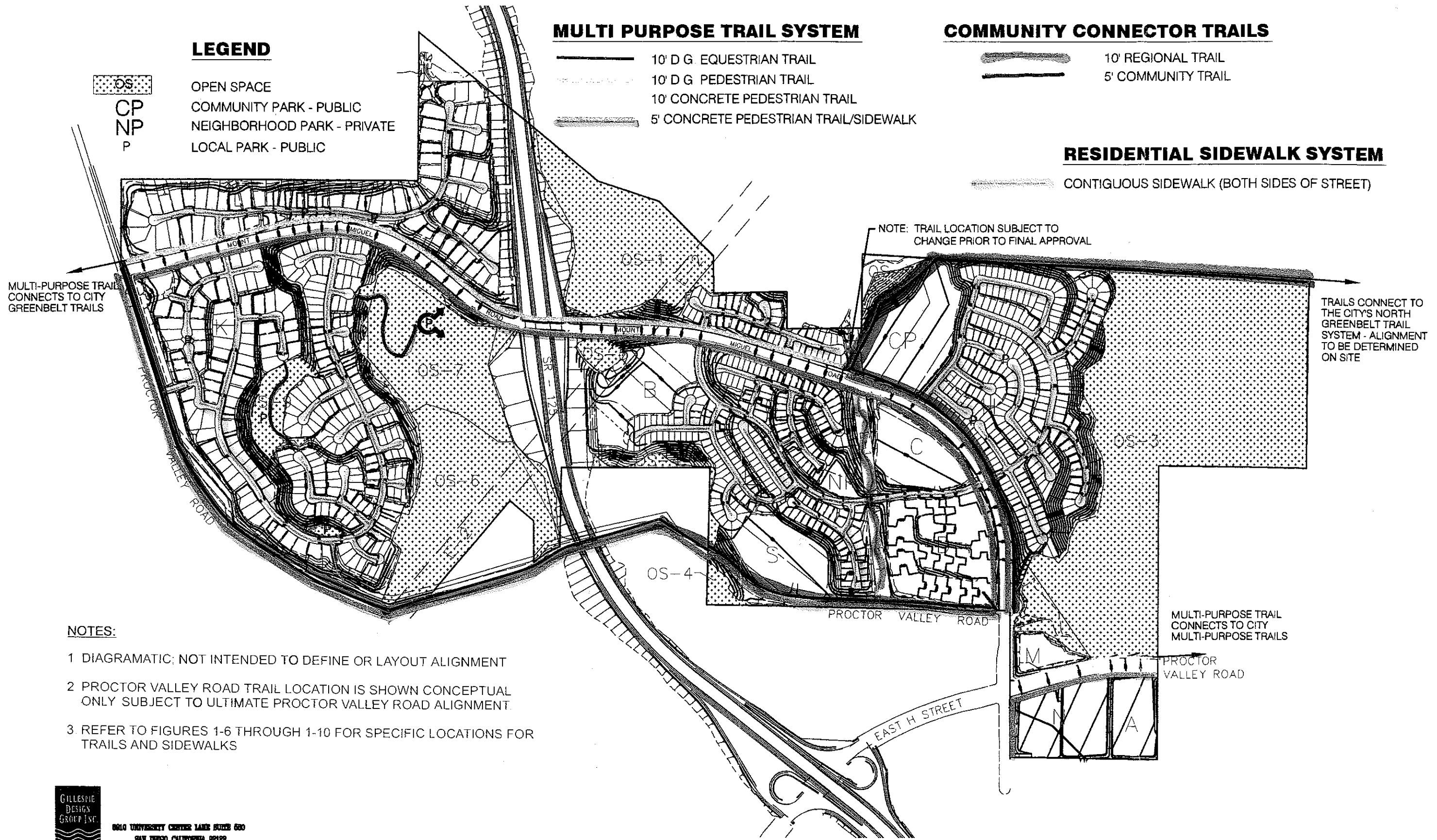
- 10' D G. EQUESTRIAN TRAIL
- 10' D G. PEDESTRIAN TRAIL
- 10' CONCRETE PEDESTRIAN TRAIL
- 5' CONCRETE PEDESTRIAN TRAIL/SIDEWALK

**COMMUNITY CONNECTOR TRAILS**

- 10' REGIONAL TRAIL
- 5' COMMUNITY TRAIL

**RESIDENTIAL SIDEWALK SYSTEM**

- CONTIGUOUS SIDEWALK (BOTH SIDES OF STREET)



**NOTES:**

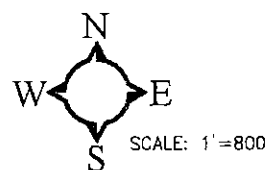
- 1 DIAGRAMATIC; NOT INTENDED TO DEFINE OR LAYOUT ALIGNMENT
- 2 PROCTOR VALLEY ROAD TRAIL LOCATION IS SHOWN CONCEPTUAL ONLY SUBJECT TO ULTIMATE PROCTOR VALLEY ROAD ALIGNMENT
- 3 REFER TO FIGURES 1-6 THROUGH 1-10 FOR SPECIFIC LOCATIONS FOR TRAILS AND SIDEWALKS



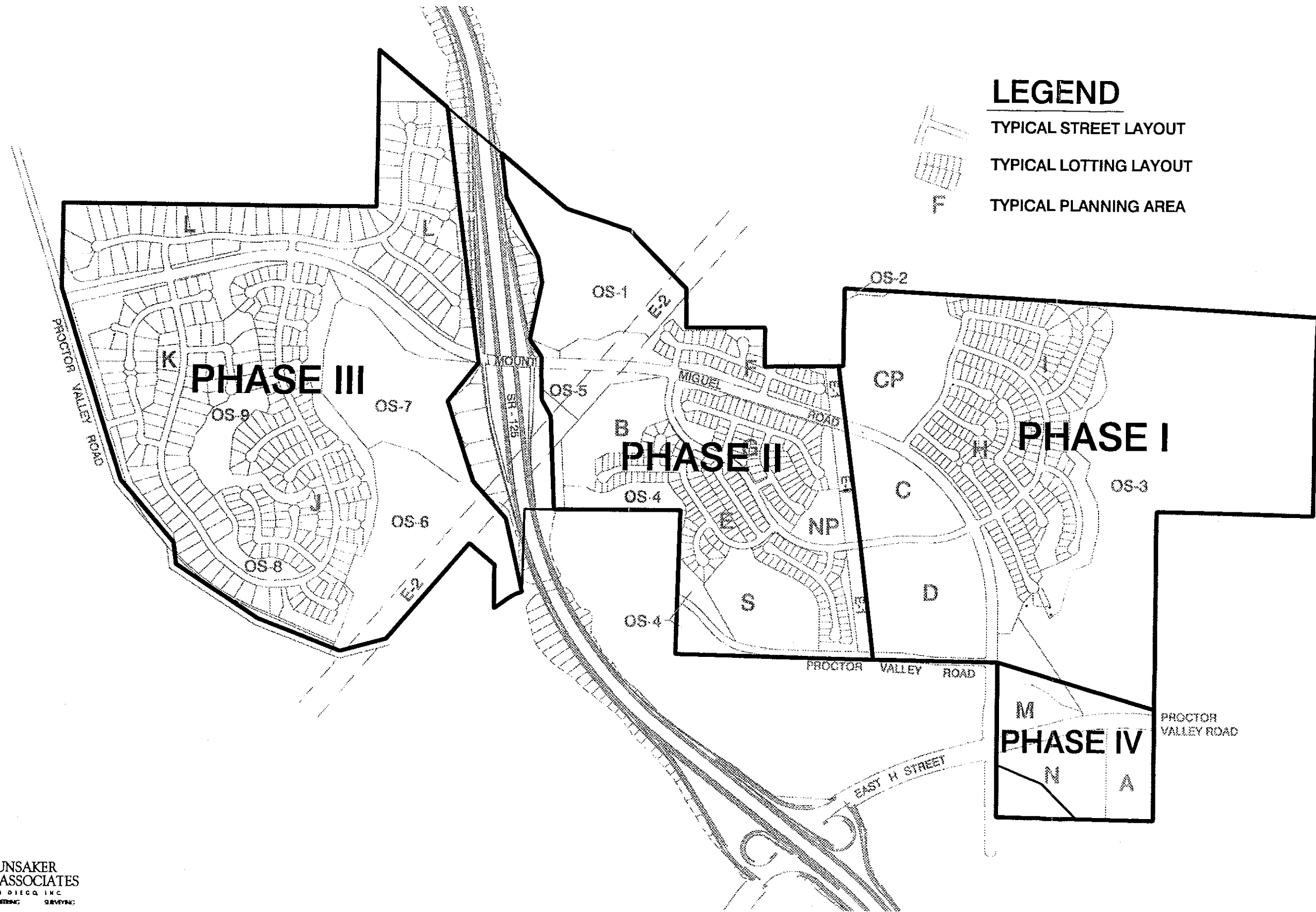
800 UNIVERSITY CENTER LANE SUITE 600  
 SAN DIEGO CALIFORNIA 92108  
 619-558-8977  
 FAX 619-558-8180

Figure 1-14

**San Miguel Ranch**



**TRAILS, PARKS AND OPEN SPACE PLAN**





the intersection of Mount Miguel Road, then continues northerly on the east side of Mount Miguel Road up to the Community Park site. A connection through or around the Community Park site will be made to the northern project boundary, with the specific location, width and composition to be determined as part of the master planning for this park. The equestrian trail location is shown on Figure 1-17. The trail will generally be located within the landscape easement adjacent to the public right-of-way, or partially within the public right-of-way as shown on Figures 1-7, 1-9 and 1-10. Users may range from Bonita Valley Horseman, Bonita Roadrunners, surrounding and neighborhood residents.

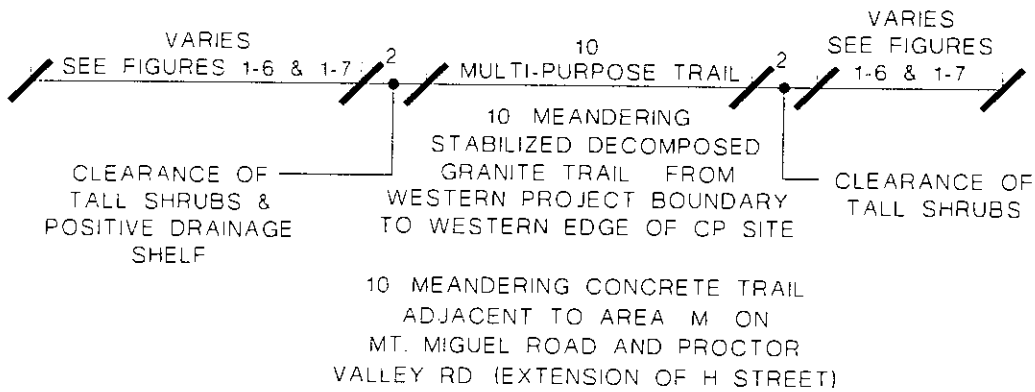
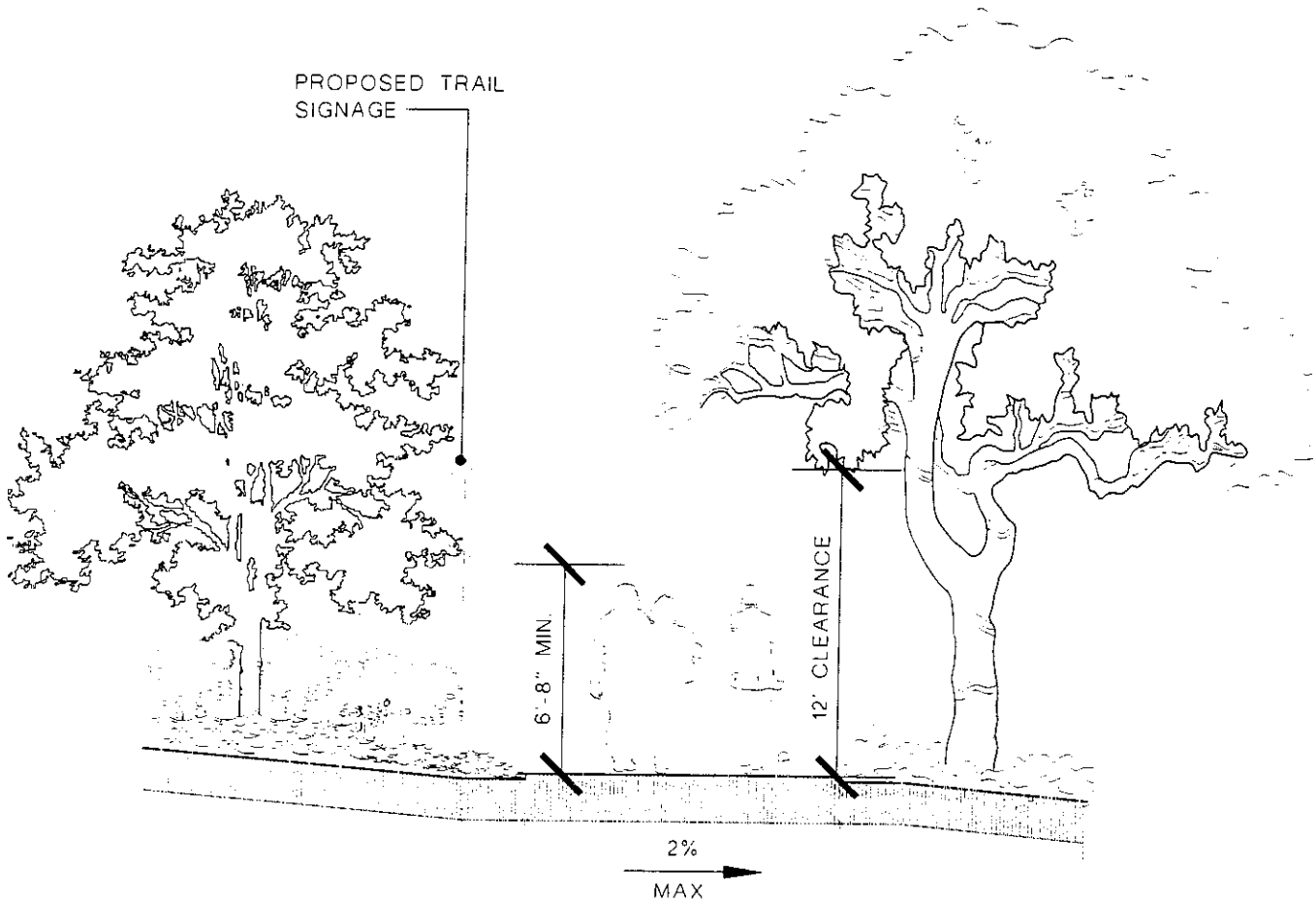
### ***Regional Trail***

Regional trails typically run north/south, east/west and provide the internal framework and connections to the Greenbelt Trail. Existing trails and service roads will be utilized as much as possible. Where new trails are required, as in the SDG&E easement located in the south-east area, they will be 10 feet wide and constructed of stabilized decomposed granite. If final approval of a trail in the SDG&E easement is not obtained a separate trail facility shall be designed outside the SDG&E right-of-way. Figure 1-18 illustrates a typical section. The majority of users are anticipated to be local residents and students traveling between the community park and school.

### ***Community Trails***

Community trails provide access to regional trails and destination points and are typically the internal routes of communities and neighborhoods. They can be similar in design to regional trails but are determined by volume. These linkages will either be the sidewalk of residential streets or a stabilized decomposed granite trail as depicted in Figure 1-19. Users are anticipated to be predominately local residents.

All trails will be designed and constructed to City standards. Trail signage shall be provided at each trail head showing both the applicable trail and sidewalk network.



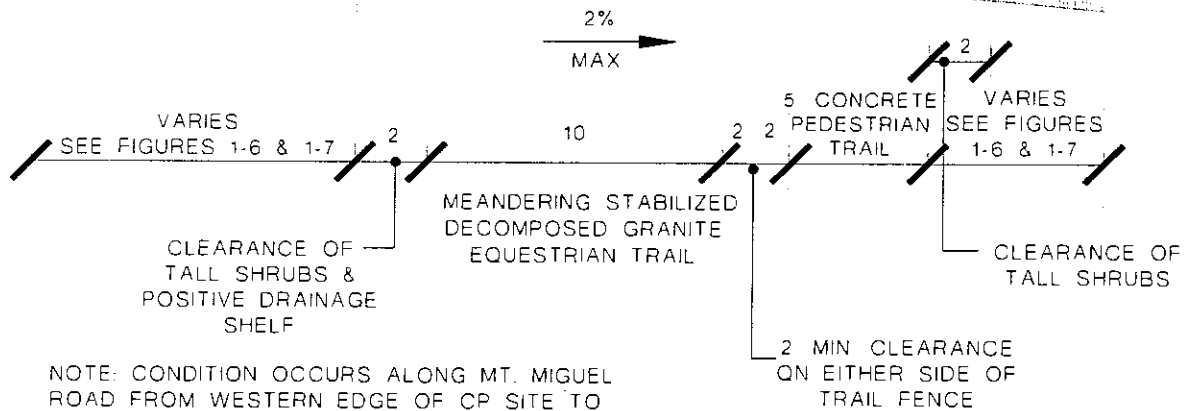
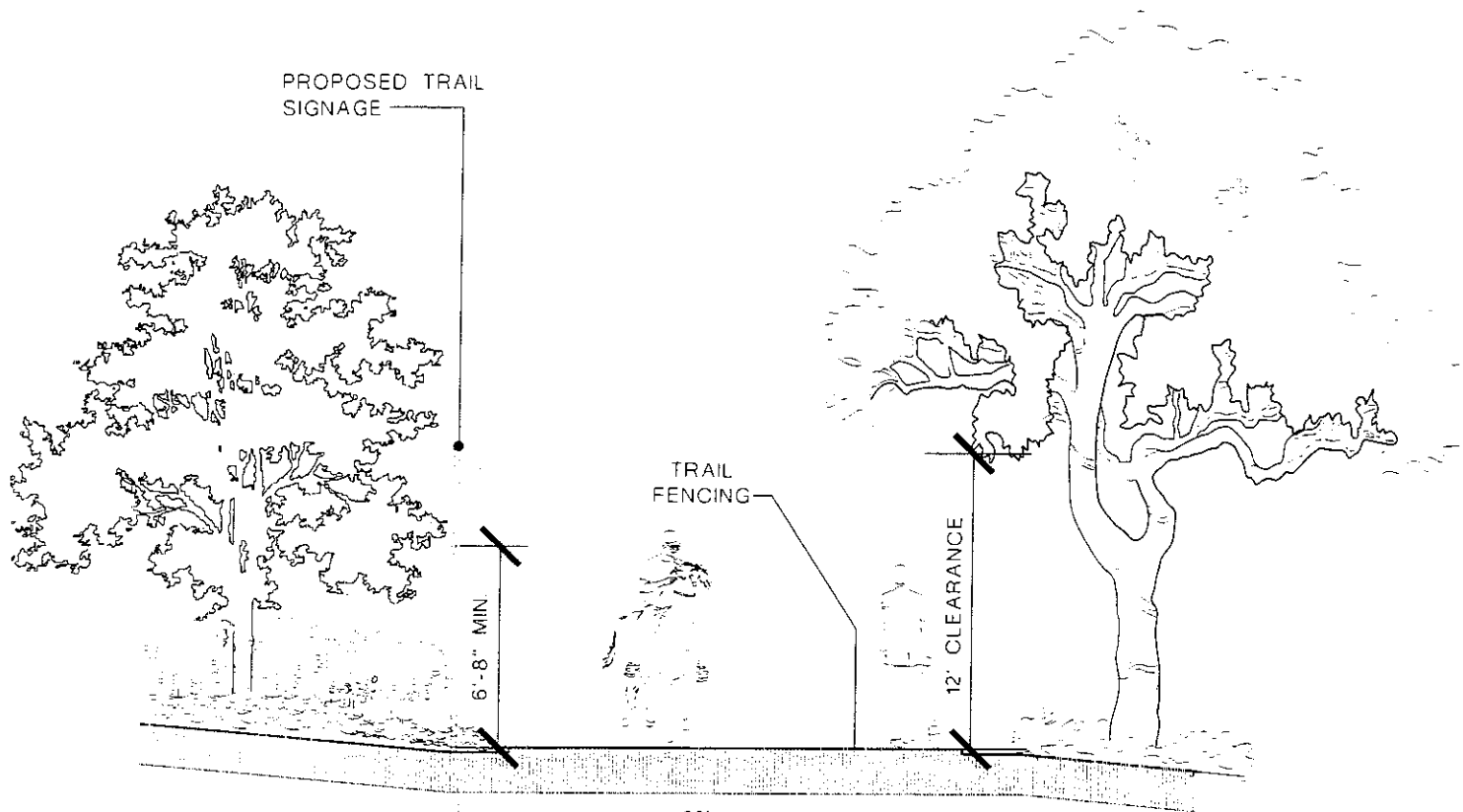
8910 UNIVERSITY CENTER LANE SUITE 580  
 SAN DIEGO CALIFORNIA 92122  
 619 558 8977  
 FAX 619 558 9188

N.T.S.

Figure 1-15

# San Miguel Ranch

## GREENBELT/MULTI-PURPOSE TRAIL SECTION (WITHOUT EQUESTRIAN)



NOTE: CONDITION OCCURS ALONG MT. MIGUEL ROAD FROM WESTERN EDGE OF CP SITE TO INTERSECTION OF MT MIGUEL ROAD/ PROCTOR VALLEY ROAD (SEE FIG 1-18)



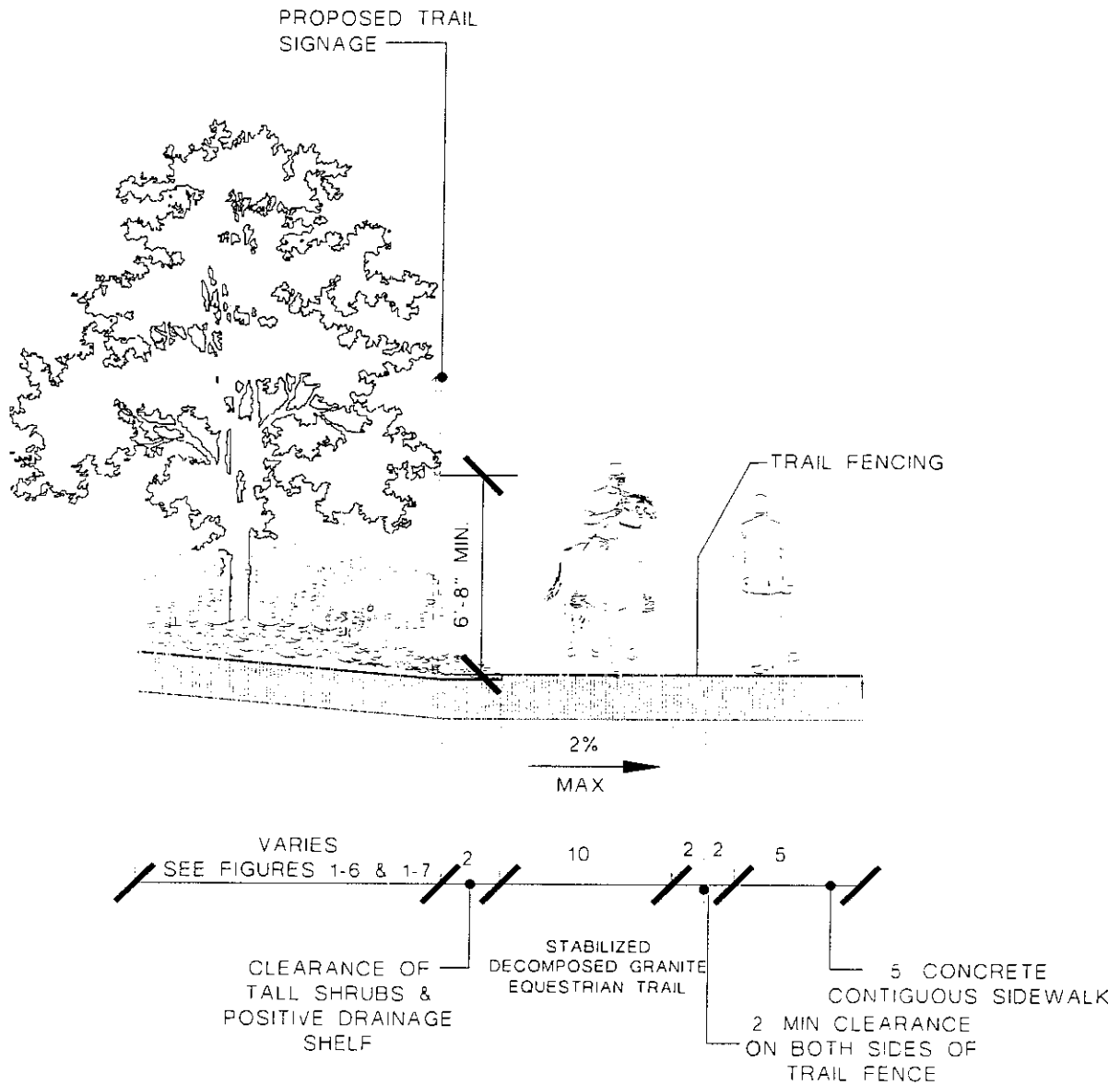
8910 UNIVERSITY CENTER LANE SUITE 580  
SAN DIEGO CALIFORNIA 92122  
619 558 8977  
FAX 619 558 9188

NTS.

Figure 1-16

# San Miguel Ranch

## GREENBELT/MULTI-PURPOSE TRAIL SECTION (WITH EQUESTRIAN)



NOTE: CONDITION OCCURS ALONG PROCTOR VALLEY ROAD FROM PROJECT BOUNDARY AT OS-4 AND SCHOOL SITE EASTERLY TO INTERSECTION WITH MT MIGUEL ROAD



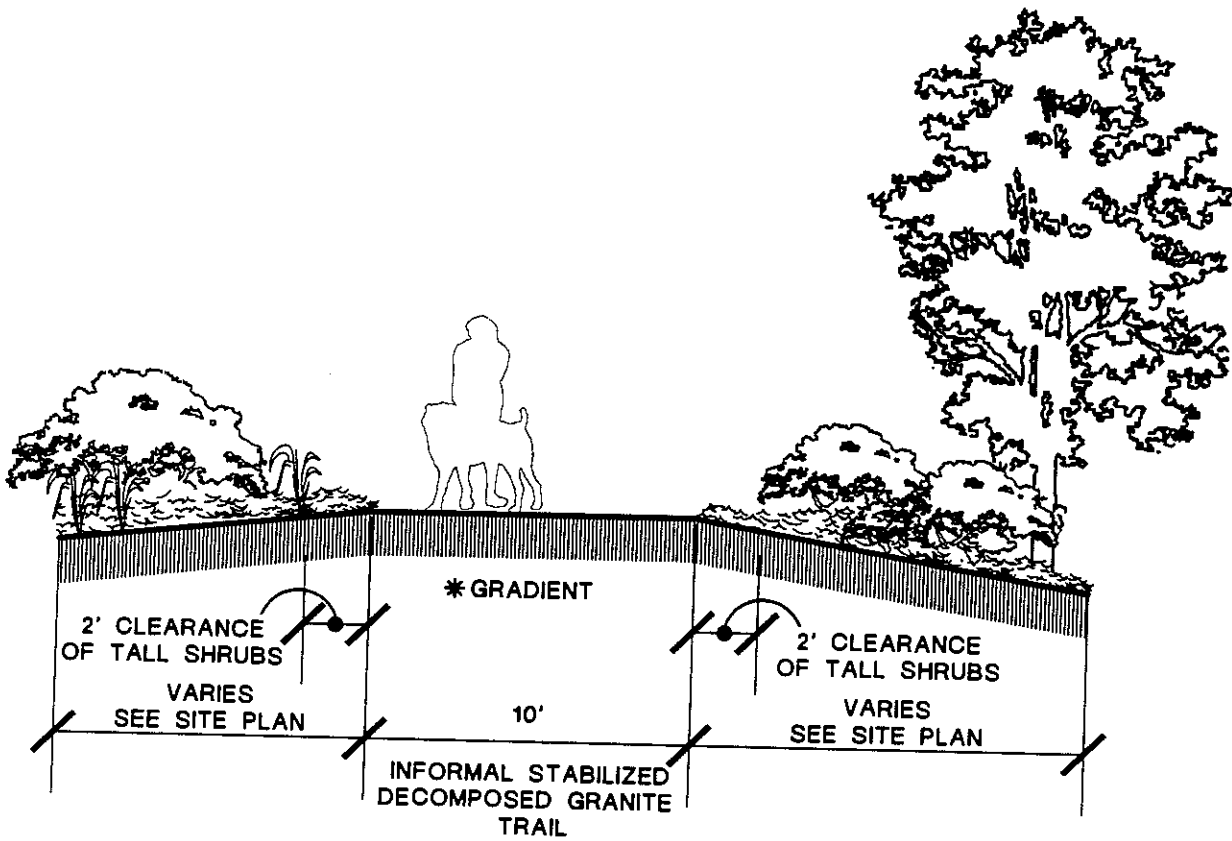
8910 UNIVERSITY CENTER LANE SUITE 560  
 SAN DIEGO CALIFORNIA 92122  
 619 558 8977  
 FAX 619 558 9188

NTS.

Figure 1-17

# San Miguel Ranch

## EQUESTRIAN TRAIL WITH SIDEWALK SECTION



**\* NOTE:**

- MAXIMUM GRADIENT UNLESS OTHERWISE NOTED ON CIVIL ENG. PLANS
- SUSTAINED RUNNING SLOPE(MAXIMUM) 5%
- INCREASES TO BE REVIEWED ON A CASE BY CASE BASIS  
PER US ARCHITECTURAL AND TRANSPORTATION BARRIERS  
COMPLIANCE BOARD
- REST AREA INTERVAL(MAXIMUM) 400'
- MINIMUM WIDTH 10'



6810 UNIVERSITY CENTER LANE SUITE 600  
SAN DIEGO CALIFORNIA 92122  
619 558-0977  
FAX 619 558-9488

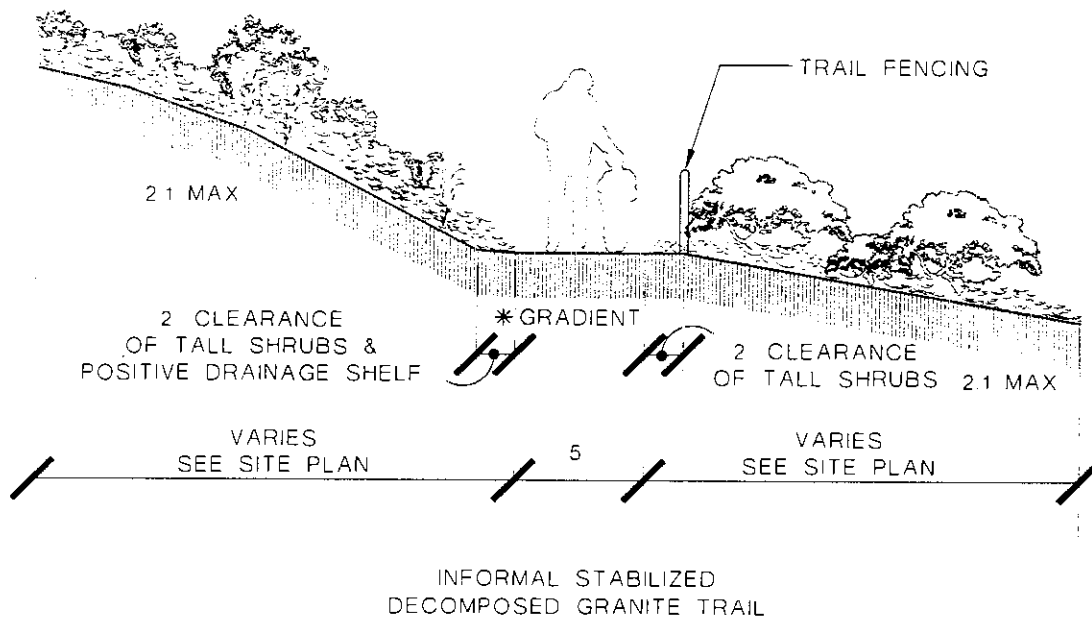
NTS.

Figure 1-18

# San Miguel Ranch

## REGIONAL TRAIL SECTION

VOL 1 Page 73



\* NOTE

- MAXIMUM GRADIENT UNLESS OTHERWISE NOTED ON CIVIL ENG PLANS
- SUSTAINED RUNNING SLOPE(MAXIMUM) 5%
- REST AREA INTERVAL(MAXIMUM) 400
- INCREASES TO BE REVIEWED ON A CASE BY CASE BASIS PER US ARCHITECTURAL AND TRANSPORTAION BARRIERS COMPLIANCE BOARD



8910 UNIVERSITY CENTER LANE SUITE 580  
 SAN DIEGO CALIFORNIA 92122  
 619 558 8977  
 FAX 619 558 9188

NTS.

Figure 1-19

# San Miguel Ranch

## COMMUNITY TRAIL SECTION

VOL 1 Page 74

## 5.4 Required Park Land and Improvements

All new development in the City of Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance. This Ordinance establishes land development fees for the acquisition and construction of parks and sets standards for dedication and establishes criteria for acceptance of parks and open space by the City of Chula Vista. The San Miguel Ranch parkland dedication requirements for San Miguel Ranch is 12.5 acres. The Community Park site within San Miguel Ranch exceeds this requirement. The final determination of net park acreage will be determined through the pending Parks Master Plan. The San Miguel Ranch Public Facilities Financing Plan (Volume 4 of the SPA Plan package) includes an analysis of parkland dedication requirements for the project and park phasing.

### *Community Park – Public*

The community park will be located to serve the residents of San Miguel Ranch and the surrounding communities. The community park will be connected to the natural open space area that borders the northern boundary of the park and will link the city's greenbelt system.

The facilities to be provided in the community park are dependent on the approval of the City of Chula Vista's pending Parks Master Plan, which is currently being prepared. Once the facilities are established, an appropriate park design can be prepared and the size requirements for the park may be refined. A site specific master plan for the San Miguel Ranch Community Park will be prepared based on the citywide Parks Master Plan.

In addition, the community park is to provide expanded, net usable acreage to satisfy a portion of the project's Community Purpose Facility requirements. The expanded net acreage is intended to accommodate the provision of a multi-purpose community meeting building which would be available for Community Purposes Facility uses, along with appropriate parking.

The amount of additional, net usable acres to be provided beyond the 15.66 net acres currently proposed for the community park will be equal to the amount of the 5.76 net acre Community Purpose Facility requirement which is not provided at SPA Site "M". These final acreage amounts will be determined prior to tentative map approval for the project. The multi-purpose community meeting building and related parking will be a required component of the facilities to be provided in the community park through the San Miguel Ranch Community Park Master Plan.

### *Neighborhood Park – Private*

A three-acre private park will be provided in the central portion of the project. This park will provide a mixture of recreational uses for the nearby residents and will be owned and maintained by the appropriate homeowners association within San Miguel

Ranch. The park may include a recreation center building, play equipment, courts, lighting and recreational open spaces.

#### ***Local Parks – Private***

Local parks will be provided as passive green spaces for residents. Facilities may include seating, walkways and play equipment. Some of these are planned to occur between cul-de-sacs and will double as emergency access routes.

### ***5.5 Park and Open Space Implementation***

All of the open space and public parks will be controlled through open space easements and/or dedication to the city. Maintenance of the public community park will be provided by the City of Chula Vista. Access controls and maintenance of private recreation facilities (including NP and OS-9 areas) will be the responsibility of the homeowner's association. Open Space and/or Landscape Maintenance Districts may be established to ensure proper management and operation of public right-of-way improvements.

Implementation of the Community Park will be addressed through approval of a San Miguel Ranch Community Park Master Plan. Implementation of the Neighborhood Park site will be through Site Plan/Architectural Review by the Director of Planning and Building.

Private open space areas and slopes within 'common interest' residential projects will be designated common areas and maintained by homeowners' associations. For detached residential project, major open space slopes will be a single lot or lots, with open space easements protecting the slopes from development.

The maintenance of the Otay Tarplant Preserves and other natural open space within San Miguel Ranch is still under discussion with the State and Federal resource agencies. The structure of the land ownership and maintenance responsibilities is being addressed in conjunction with the mitigation/preservation plan, and will be finalized as part of that plan.

### ***5.6 Parkland Acquisition and Development Compliance***

The phasing of community development concurrent with the provision of adequate parkland and improvements is fully described in the Public Facilities and Financing Plan (Volume 4 of the SPA Plan package). The schedule of improvements has been developed to maintain an adequate level of service for San Miguel Ranch residents. The mechanism to provide actual dedication and improvement of public park areas is expected to be subdivision map conditions.



# CHAPTER VI

## DEVELOPMENT PHASING

### 6.1 *Project Phases*

In order to minimize the impacts of any new development in San Miguel Ranch on the existing and proposed land uses adjacent to the SPA, a number of major facility improvements are required to support the project development. The most important aspect of development phasing in San Miguel Ranch is that adequate public and private facilities and services to support the land uses permitted in the SPA, be provided concurrent with need. The PFFP (Volume 4 of this SPA Plan package) establishes specific phasing controls related to infrastructure improvements and other benchmarks which will affect the scheduling for each phase of project development, which is discussed further in the following section.

The development of San Miguel Ranch is anticipated to occur in four (4) major phases, and generally will proceed from east to west (Figure 1-20). The phases are as follows:

#### *Phase 1 – Eastern Area*

The first phase of the San Miguel Ranch development includes the neighborhoods located easterly of the SDG&E easement and north of Proctor Valley Road.

#### *Phase 2 – Central Area*

The second phase includes the balance of the residential areas east of the future SR 125 and north of Proctor Valley Road, and west of the SDG&E easement.

#### *Phase 3 – Western Area*

The third phase of the San Miguel Ranch development includes the neighborhoods located westerly of the future alignment of SR 125.

#### *Phase 4 – Southern Area*

The fourth phase of the San Miguel Ranch development includes the non-residential and multi-family properties located south of Proctor Valley Road and east of Mount Miguel Road in the southeastern portion of the SPA Plan boundaries. The timing of construction of this phase may vary depending upon market conditions, site development constraints, and is subject to the satisfaction of San Miguel Ranch SPA requirements and other applicable requirements of the city and other service agencies.

### 6.2 *Provision of Public Facilities*

The San Miguel Ranch phasing strategy requires new subdivision projects to improve certain facilities and infrastructure as described in the Public Facilities Financing Plan (PFFP) for San Miguel Ranch, which is Volume 4 of the SPA Plan package.

Based on the rate, location and nature of the proposed development in the SPA, the City of Chula Vista will condition certain discretionary permits (Tentative Maps, Tentative Parcel Maps and Site Development Plans) to improve/provide these major facilities prior to recordation of Final Maps, Parcel Maps or issuance of building permits. In general, phasing and facility construction will be provided based on the following concepts, as supported by and further prescribed in the PFFP.

- Drainage and erosion control facilities will be provided concurrently with site grading to protect downstream areas.
- Street, utilities and drainage facilities will be constructed concurrently with residential development, ensuring sufficient capacity to meet residents' requirements.
- Construction of the elementary school, neighborhood commercial center and community purpose facility will occur when adequate demand warrants.
- Construction of the community park is to occur at the time dwelling unit thresholds established by the San Miguel Ranch PFFP are met.
- Community-level facilities outside San Miguel Ranch will be built when the service area is sufficient, with fees or assessments collected as residential construction progresses.
- Grading, drainage facilities, water and sewer facilities and roads will be provided at adequate levels to accommodate development in each phase according to the City of Chula Vista's requirements as implemented through Tentative Subdivision Maps.
- Phases will be developed in accordance with market conditions and infrastructure timing.
- Phases may develop concurrently or separately, provided adequate consideration has been given to infrastructure needs.
- Amenities (entry statements, enhanced open space, trails, etc.) will be developed in association with adjacent residential development.
- The phasing of affordable housing will be provided in accordance with the thresholds established in the Affordable Housing Plan, Volume 5 of this SPA Plan package.

# CHAPTER VII

## PUBLIC FACILITIES

### 7.1 *Introduction*

This section identifies the public facilities required for San Miguel Ranch in compliance with the City's goals that new development provide all necessary support services. In addition, this section describes the major infrastructure improvements and the financing needed for the project. As part of the City's requirements, a Public Facilities and Financing Plan (PFFP) has been prepared in conjunction with this SPA Plan, and is included as Volume 4 of the San Miguel Ranch SPA Plan package. The PFFP describes the backbone facilities in more detail, and assigns the responsibility for construction and financing of all required facilities.

The public facilities outlined in this section have been determined based upon projected land uses and their distribution as shown on the Site Utilization Plan (Figure 1-4). Facilities will be sized in accordance to the projected demands and necessary distribution for these land uses. Facilities needs and delivery schedule are subject to modification as part of the tentative map review and approval.

### 7.2 *Water Service*

The San Miguel Ranch SPA is located within the "Central Area System" service area of the Otay Water District, a member of the San Diego County Water Authority and the Metropolitan Water District of Southern California. The Metropolitan Water District is the sole supplier of water to the San Diego County Water Authority, whose primary sources are the state water project and the Colorado River. The Otay Water District will provide local domestic service for the project. The project will require completion of a Water Subarea Master Plan to the satisfaction of the Otay Water District prior to approval of a tentative map. Those portions of the project not already within Improvement District 19 will be required to annex into Improvement Districts 22 and 27 for water and recycled water service. Because of the range of elevation throughout the project, potable water for San Miguel Ranch will be supplied from two pressure zones providing static pressure grades of 980 and 711 feet.

#### 7.2.1 *Design Criteria and Projected Water Demands*

This section presents the design criteria used to evaluate the potable and recycled water systems for the San Miguel Ranch project. The criteria utilized in this report are established in accordance with the Montgomery Watson April 1995 Otay Water District Water Resources Master Plan and the NBS Lowry November 1995 Wastewater and Recycling Optimization Study. The design criteria are utilized for analysis of the existing water system as well as for design and sizing of proposed

improvements and expansions to the existing system to accommodate demands in the study area.

### ***Duty Factors and Peaking Factors***

Table 1-3 presents the duty factors used in projecting the total average day potable and recycled water demand for the San Miguel Ranch project. The required fire flows and durations are also listed. The City of Chula Vista utilizes the Uniform Fire Code for determining required fire flows and durations for new development.

Land Use Designation	Quantity Units	Unit Domestic Demand		Required Fire Flow	
		gpd/Ac	Ac-Ft/ Yr	gpm	Duration Hours
Residential					
Single Family-Medium (1-3 DU/AC)	319	1,339	1.5	1,500	2
Single Family-High (3-8 DU/AC)	727	1,785	2.0	1,500	2
Multi-Family (8 DU/AC and above)	348	2,232	2.5	2,500	2
Schools (Elementary)	1	1,785	2.0	3,500	3

To convert average day potable water demands to maximum day demands, factors from the Otay Water District Water Resources Master Plan (April 1995 by Montgomery Watson) were utilized. To convert average day potable water demands to peak hour demands, a factor of 3.5 was used.

In general, daily and hourly peak factors for irrigation demands are higher than those for domestic water demands. In evaluating the recycled water facilities in this report, a factor of 2.6 was used to convert average recycled water demands to maximum day demands. Similarly, a factor of 7.8 was used to convert average recycled water demands to peak hour demands.

### ***System Pressures***

Generally, the potable water distribution system is designed to maintain static pressures between 60 psi and 200 psi. This criteria was used to initially divide the project between the 980 Zone and the 711 Zone for water service. The potable water distribution system has been designed to yield a minimum of 40 psi residual pressure at any location under peak hour demand flows, and a minimum residual pressure of 20 psi during maximum day demand plus fire flow conditions. Potable water mains are sized to maintain a maximum velocity of 10 feet per second under a maximum

day plus fire flow scenario and a maximum velocity of 6 feet per second under peak hour flow conditions.

### *Projected Water Demands*

Table 1-4 provides the projected potable water demand for San Miguel Ranch. The total estimated average potable water use is 0.64 mgd. Table 1-5 provides the projected recycled water demand for San Miguel Ranch. The estimated average recycled water demand is 0.24 mgd. Potable water and recycled water use factors were taken from the April 1995 Otay Water District Water Resources Master Plan prepared by Montgomery Watson.

<b>Land Use</b>	<b>Area, Acres</b>	<b>Unit Demand, ac-ft/yr</b>	<b>Annual Demand, ac-ft/yr</b>	<b>Average Day Demands, mgd</b>
Single-Family-Medium	169.4	1.5	254.1	0.23
Single Family-High	159.1	2.0	318.2	0.28
Multi-Family	36.7	2.5	91.8	0.082
School	10.2	1.4	14.3	0.013
Commercial	18.1	2.0	36.2	0.032
<b>TOTAL</b>			<b>714.6</b>	<b>0.64</b>

<b>Land Use</b>	<b>Area, Acres</b>	<b>Percentage to be Irrigated %</b>	<b>Irrigated Acreage</b>	<b>Recycled Water Irrigation Factor, gpd/ac</b>	<b>Average Recycled Water Demand, gpd</b>
Irrigated Space <sup>1</sup>	80	100	80	2,232	178,560
Park	21.4	100	21.4	2,232	47,722
School	10	20	2.0	2,232	4,464
Commercial	18	10	1.8	2,232	4,018
Parkway landscaping	31	10	3.1	2,232	6,919
<b>TOTAL</b>	<b>160.4</b>		<b>108.3</b>		<b>241,683</b>

<sup>1</sup> A final determination has not yet been made on whether open space graded slopes will be irrigated on a permanent basis or only until native vegetation is re-established. For the purpose of this study, twenty-five percent of the project's open space areas were assumed to be permanently irrigated.

### ***7.2.2 Existing Potable Water Facilities***

Potable water will be supplied to the San Miguel Ranch project by the Otay Water District which currently relies solely on the San Diego County Water Authority (SDCWA) for water supply. The Otay Water District has several connections to SDCWA Pipeline No. 4 which delivers filtered water from the Metropolitan Water District's filtration plant at Lake Skinner in Riverside County. The Otay Water District also has a connection to the La Mesa - Sweetwater Extension Pipeline which delivers filtered water from the R.M. Levy Water Treatment Plant in the Helix Water District. Currently, this connection supplies water to the north portion of the Otay Water District only. The Otay Water District also has an emergency use only connection to the City of San Diego's water system in Telegraph Canyon Road.

The San Miguel Ranch project will be served by the Central Service Area of the Otay Water District. This area of the District is supplied water from two connections to the SDCWA aqueduct which fills 624 Zone reservoirs. Water is then distributed within the 624 Zone and pumped to the 711 Zone and 980 Zone storage and distribution systems.

To receive water service, the San Miguel Ranch project will need to expand the existing 711 Zone and 980 Zone. Figure 1-21 presents a map showing the existing water facilities in the vicinity of the project. The existing water facilities adjacent to the San Miguel Ranch development consist of both 711 Zone and 980 Zone facilities.

#### ***Pipelines***

There is an existing 16-inch potable water main in Mount Miguel Road that is part of the 980 Zone. This 16-inch main terminates at a 980/711 Zone pressure reducing station near the intersection of Mount Miguel Road and Proctor Valley Road. From there, a 12-inch water line in Proctor Valley Road extends westerly to the intersection of Proctor Valley Road and Rolling Ridge Road where it reduces to a 10-inch line that loops through the Salt Creek I project.

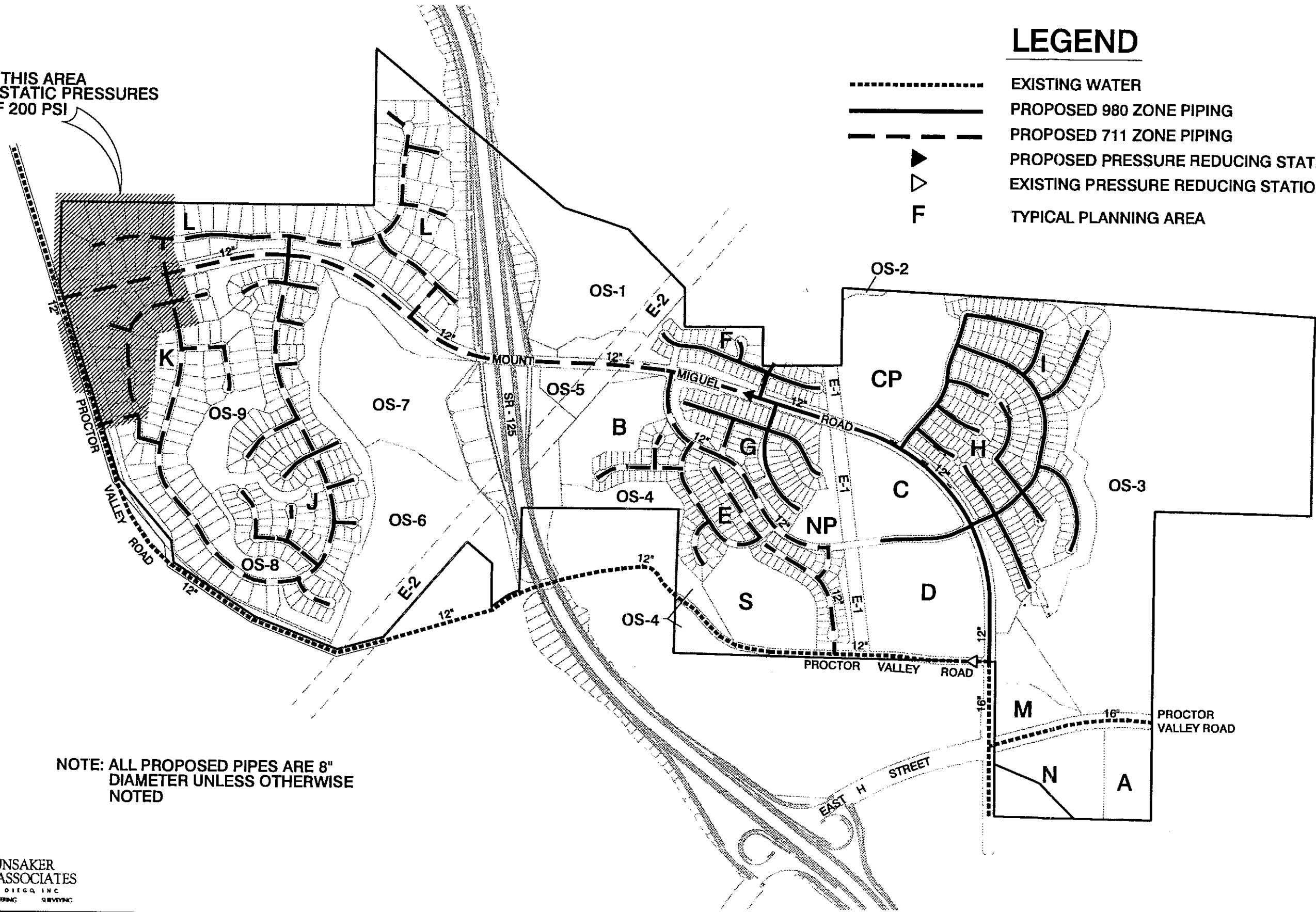
#### ***Pumping Facilities***

There is currently one pump station in the 711 Zone, referred to as the Central Area Pump Station, that is located south of Otay Lakes Road adjacent to the 624 Zone Patzig Reservoir. This station pumps water from the 624 Zone System into the 711 Zone distribution system and into two existing reservoirs located in the Eastlake Greens development. The 711 Zone Pump Station currently has four pumps (one standby), each rated for 4,000 gpm which results in a firm capacity of 12,000 gpm. There is one spare can at this station that allows for the addition of a fifth pump in the future.

LOTS WITHIN THIS AREA  
EXPERIENCE STATIC PRESSURES  
IN EXCESS OF 200 PSI

### LEGEND

- EXISTING WATER
- PROPOSED 980 ZONE PIPING
- - - - - PROPOSED 711 ZONE PIPING
- ▶ PROPOSED PRESSURE REDUCING STATION
- ▷ EXISTING PRESSURE REDUCING STATION
- F TYPICAL PLANNING AREA



NOTE: ALL PROPOSED PIPES ARE 8"  
DIAMETER UNLESS OTHERWISE  
NOTED



# San Miguel Ranch

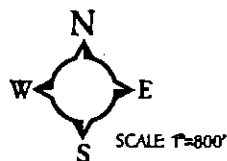


Figure 1-21

## PROPOSED WATER PLAN

There is presently one pump station in the 980 Zone, referred to as the Eastlake Pump Station, which lifts water from the 711 Zone to the 980 Zone reservoirs. This pump station is located on the south side of Otay Lakes Road at Lane Avenue. This pump station is equipped with three 4,000 gpm pumps (one standby) for a firm capacity of 8,000 gpm.

### ***Reservoirs***

There are currently two reservoirs in the 711 Zone. These reservoirs are located at the same site within the Eastlake Greens development and have capacities of 2.8 and 2.2 million gallons for a total of 5.0 million gallons. Another 711 Zone Reservoir is in the pre-design stage and is to be located in the Otay Water District use Area Property north of the Salt Creek Ranch project. This reservoir will have a capacity of 8.0 million gallons and is expected to be completed in the next two to three years.

There are two existing reservoirs in the 980 Zone system. The reservoirs are located on the Otay Water District Use Area property north of the Salt Creek Ranch project. The reservoirs have a capacity of five million gallons each for a total of 10 million gallons.

### ***7.2.3 Recommended Potable Water Facilities***

Because of the range of elevations throughout the project, San Miguel Ranch will be served by expanding the 980 Zone and 711 Zone water systems. There are approximately 38 lots, located in neighborhoods "K" and "L" on the western portion of the project (see Figure 1-21), that will experience static pressures ranging from 200 to 208 psi. Although this is above the maximum desirable pressure, it is recommended to serve these lots entirely from the 711 Zone as opposed to creating a lower zone with the addition of a pressure reducing station. The final determination will be made by the Otay Water District.

#### ***980 Zone***

The eastern portion of the San Miguel Ranch project can receive water service by expanding the existing 980 Zone facilities in the vicinity of the project. Planning Areas A, M, and N can be served by making connections to the 16-inch water line in Proctor Valley Road that is being constructed as part of the Salt Creek Ranch project. The remainder of the proposed development within the 980 Zone can be served by constructing a 12-inch water line in San Miguel Road with 8-inch lines branching off to the service areas. The proposed 12-inch line in San Miguel Road will terminate at the proposed 980/711 Zone pressure reducing station near Planning Area F.

#### ***711 Zone***

Service to proposed development within the 711 Zone portion of the project can be served by connecting to the existing 12-inch piping in Proctor Valley Road and constructing a new pressure reducing station in San Miguel Road. As shown on Figure 1-21, 12-inch pipe is recommended between these locations. A 12-inch line



is also proposed to be located in San Miguel Road from the proposed pressure reducing station westerly to Planning Area L. All other piping within this zone is adequate as 8-inch.

#### ***7.2.4 Existing Recycled Water Facilities***

Recycled water service and facilities are addressed in the Otay Water District subarea Master Plan (SAMP) prepared by Montgomery Watson on behalf of the Otay Water District. The phasing and financing of recycled water facilities is addressed in the San Miguel Ranch Public Facilities Financing Plan

Currently, the only source of recycled water for the Otay Water District is the Ralph W. Chapman Water Recycling Facility. This facility has a capacity of 1.3 mgd and can be expanded to an ultimate capacity of 3.84 mgd. Storage of the effluent is provided by two ponds in the District's Recycled Use Area near the two existing 980 Zone potable water tanks.

The storage ponds have a high water line of approximately 950 feet and provide the storage and supply for the 950 Zone distribution system. There is an existing 20-inch pipeline that conveys water from the storage ponds to the Eastlake Golf Course. The Salt Creek Ranch project is constructing a 16-inch line in Proctor Valley Road from this 20-inch line westerly to Mount Miguel Road. There are existing recycled water lines in Proctor Valley Road and Mount Miguel Road to serve the Salt Creek I project.

#### ***7.2.5 Recommended Recycled Water Facilities***

The potential use areas for recycled water on the San Miguel Ranch project include open space, parks, parkway landscaping, and the common areas of the school and commercial sites. Service to irrigated areas above elevation 500 feet can be served by extending the existing 950 Zone recycled water system located at the southeast corner of the project in Proctor Valley Road and Mount Miguel Road. The potential recycled water use areas have been identified and are shown on Figure 3-12 in Volume III in conjunction with the landscape irrigation design section. It is expected that an 8-inch line will be constructed in Mt. Miguel Road with 6-inch lines to the use areas. To serve irrigated areas below 500 feet in elevation will require the construction of a pressure reducing station off the 950 Zone system. The system is depicted in Figure 1-22.

Upon buildout the San Miguel Ranch potable water distribution system will have adequate capacity and fire flows to service the proposed residents based on the reports prepared by Wilson Engineering. The recycled water system will service open space and common use facilities which are maintained by an HOA or CFD. Adequate capacity will exist to serve the San Miguel Ranch upon completion of the proposed infrastructure requirements delineated in the Wilson Engineering Report.

### 7.3 *Water Conservation Plan*

The Water Conservation Plan for San Miguel Ranch is included as Volume 7 of the SPA Plan package. It presents a review of presently available technologies and practices which result in water conservation in primarily residential developments. The purpose of this report is to determine which of these technologies and practices are economically efficient and most cost effective to implement within the San Miguel Ranch. The recommendations for conservation measures are summarized below.

Implementing the recommended water conservation measures would result in significant water savings and would be cost-effective for San Miguel Ranch. Aside from pressure reducing valves which are required by the Otay Water District, it is up to the developer and homeowner to implement measures that will result in water savings. The developer is limited in how much he can make the homeowner do, but the developer should set a good example and make the homeowner aware of the need to conserve water.

The following water conservation measures are recommended to be included in the development of San Miguel Ranch:

- Ultra low flow showerheads.
- Pressure reducing valves.
- Water conservation guide.
- Use of recycled water where possible.
- Drought resistant plants in parks and public landscaping.
- Effective irrigation system design and management.

Implementing water conservation measures before the construction of a new development project provides an opportunity to include measures that might not be feasible or cost effective to retrofit within a developed area. There are several measures described below that would be expensive to retrofit, but may be cost effective if included in the initial construction.

#### *Indoor Measures*

Ultra-Low Flow Showerhead - Ultra-low flow showerheads reduce the flow rate for showers to 1.5 gallons per minute, whereas standard low flow showerheads use 2.5 gallons per minute. California regulations require that all showerheads sold in the state have a maximum flow rate of 2.5 gallons per minute. A survey conducted by the Department of Housing and Urban Development (HUD) found that standard low flow showerheads had an observed flow rate of 1.9 gpm and ultra low flow showerheads had an observed flow rate of 1.3 gpm.

Water Efficient Clothes Washer - Efficient clothes washers are designed to reduce the amount of water used per load. Efficient clothes washers may use about 45 gallons per load, whereas standard washers use about 55 gallons per load.

Water Efficient Dishwasher - Efficient dishwashers, like clothes washers, are designed to reduce the amount of water used per load. Efficient dishwashers use about 11 gallons per load versus standard dishwashers that use about 14 gallons per load. It is estimated that daily dishwasher usage averages 0.17 loads per person. Many times dishwashers are supplied by the developer so it is often their decision whether or not to install the more efficient machines.

Water Pressure Reduction - Pressure reducing valves are used to lower water consumption through system leakage by reducing the pressure head to between 50 and 60 psi. Lower water pressure also reduces the flow rate from faucets in wash basins resulting in more efficient use of the water. This device is mainly useful in areas where water pressure is greater than 60 psi. The water savings resulting from the installation of pressure reducing valves is estimated to be 3.0 percent of household water use.

### *Outdoor Measures*

Low Water Use Landscaping - The purpose of this measure is to replace the familiar ornamental plants imported from the east coast with plants that are more adapted to the hot and dry conditions of California. These plants require less water and, if irrigated properly, will result in water savings. This measure is especially attractive in new developments because low water use plants are no more costly to plant than the familiar ornamental plants. Under this measure, turf area is not reduced; the substitution is made in the border areas surrounding the turf. Water savings from low water use plants is estimated to be 7.5 percent of total household water use.

Xeriscaping - Xeriscaping involves several principles that all serve to reduce water use. These principles include reduction of turf area, incorporation of low water use plants, efficient irrigation, use of mulches to reduce evaporation from the soil, and appropriate maintenance. The limiting of turf size provides the most significant savings of water. Xeriscaping, while still attractive, can cut outdoor water use by 50 percent if maintained properly. The City of Chula Vista requires a drought tolerant garden to be designed for one of the model homes, as a component of the comprehensive landscape Master Plan.

Automatic Timer Shutoffs for Manual Hose Systems - In the event that a home is manually watered, automatic timer shutoffs are available for hoses so that it becomes convenient to irrigate more accurately. The hose is shut off automatically after the desired amount of time rather than when the homeowner returns to shut it off. The effectiveness of this measure is further increased if the homeowner has a knowledge of how long to irrigate. This device is expected to reduce outdoor water use by 15 percent for houses using hoses to irrigate.

There are other types of irrigation systems available for use, but statistics on their effectiveness in saving water were not readily available. An automatic timer controlled sprinkler system is available and serves to eliminate the possibility of

forgetting to turn off the sprinklers. Drip irrigation systems are also available. These systems reduce evaporation losses and losses due to wind blown spray. In the past few years there have been amendments to the zoning ordinance which establishes regulations and guidelines to conserve water on outdoor landscaping in projects requiring City approval. This trend is expected to continue to control the amount of water that will be used outdoors in residential projects.

#### ***Water Conservation Guide***

One of the requirements of the comprehensive landscape master plan is that developers produce a landscape watering guide and distribute it to the homeowners of a new development project, to educate the homeowner on the efficient irrigation of landscaping. Studies have shown that increased public awareness and information is very important in an effective water conservation plan. Besides efficient irrigation, a home water conservation guide can include information on general conservation techniques, such as listing commonly available drought resistant plants, and explaining how to install efficient irrigation systems such as drip irrigation.

A sample of some tips that should be included in a water conservation guide are listed below:

- Select drought resistant plants.
- Irrigate early in the morning.
- Use drip irrigation as opposed to sprinklers to reduce evaporation losses.
- Build basins around trees and plants to avoid water run off.
- Use mulch around plants to absorb and retain water better.
- Sweep sidewalks and patios rather than hosing them off.
- Do not leave water running while washing car.
- Do not leave water running while washing dishes, shaving, or brushing teeth.
- Check for and fix leaks in pipes, faucets, and toilets.

This list is not intended to be all inclusive, but should provide some ideas on what to include in a water conservation guide. A water conservation guide is expected to reduce total household water usage by 10 percent.

### ***7.4 Sewer Service***

Sewer service for San Miguel Ranch will be provided by the City of Chula Vista which operates and maintains its own sanitary sewer collection system. Chula Vista's effluent ultimately connects to the City of San Diego's Metropolitan Sewer System.

San Miguel Ranch is located within the Sweetwater Sewer Basin which has the Proctor Valley Road sewer service available to service the project.

### 7.4.1 Design Criteria and Sewage Flow Projections

This section presents the design criteria used to project sewage flows and size future sewage facilities for the project. The design criteria used for the Proctor Valley Basin is from the City of Chula Vista Subdivision Manual. The projected sewage generation factors and flows are based on the Wilson Engineering report dated 12/2/98, entitled "Overview of Sewer Service for San Miguel Ranch."

#### *Sewage Generation and Peaking Factors*

The sewage generation factors used to project average day sewage flows from San Miguel Ranch are presented in Table 1-6. Single family residential areas are defined as 10 or less dwelling units per acre. Multi-family residential areas are defined as more than 10 dwelling units per acre.

<b>Land Use</b>	<b>Average Unit Flow</b>
Single Family Residential	280 gpd/unit
Multi-Family Residential	210 gpd/unit
Commercial	2,500 gpd/acre
Community Purpose Facilities	2,500 gpd/acre
Elementary Schools	9,000 gpd/site
Parks	500 gpd/acre

The following peaking formula was used to convert average daily flow (ADF) to peak wet weather flow (PWWF).

$$\text{PWWF, GPM} = 3.51 (\text{ADF, gpm})^{0.908}$$

This equation closely approximates the peaking factor curve provided in Figure CVDS-18 of the City of Chula Vista Subdivision Manual.

#### *Gravity Sewers*

All gravity sewers have been designed to convey peak wet weather flow. For new pipes with a diameter of 12 inches and smaller, the sewers have been designed to convey this flow when flowing half full. For new pipes with a diameter larger than 12 inches, the sewers have been designed to convey peak wet weather flow when flowing three-fourths full by depth.

All existing pipes with diameters of 12 inches or larger were allowed to fill to 85 percent full by depth before recommending replacement. Eight and 10-inch pipes were allowed to fill to 60 percent full by depth before recommending replacement. Manning's equation with  $n = 0.013$  was used to size all gravity sewers. All new sewers were designed to maintain a minimum velocity of two feet per second at design capacity to prevent the deposition of solids.

### *Projected Sewer Flows*

Based on the sewage generation factors presented previously and the proposed development plan for San Miguel Ranch, Table 1-7 provides the projected sewage flow for San Miguel Ranch. The total projected average sewage flow is 0.43 mgd.

<b>Land Use</b>	<b>Area (Acres)</b>	<b>Dwelling Units</b>	<b>Sewage Generation Factor</b>	<b>Average Sewage Flow, gpd</b>
Single Family	---	1046	280 gpd/unit	292,880
Multi-Family	---	348	210 gpd/unit	73,080
Commercial	18.1	---	2,500 gpd/acre	45,250
Elementary School	10.2	---	9,000 gpd/site	9,000
Park	21.4	---	500 gpd/acre	10,700
<b>TOTAL</b>		<b>1,394</b>		<b>430,980</b>

### *7.4.2 Existing Sewer Facilities*

Existing development in the vicinity of San Miguel Ranch is currently served by a gravity sewer line in Proctor Valley Road. This sewer line was constructed during development of the Salt Creek I project. This line generally follows Proctor Valley Road from the Salt Creek I project to Bonita Meadows Lane where it connects to a County of San Diego 15-inch line.

The County of San Diego 15-inch line, referred to as the Frisbee Trunk Sewer, conveys sewage westerly to the Spring Valley Outfall. Figure 1-23 provides a map showing the location of existing facilities and a brief discussion is provided below.

#### *Proctor Valley Trunk Sewer*

Sewer flows generated by San Miguel Ranch will feed into the gravity sewer line in Proctor Valley Road at various locations. The sewer line consists of approximately 4,000 feet of 10-inch pipe, 1,500 feet of 12-inch pipe, and 3,900 feet of 15-inch pipe. This sewer line was constructed during development of the Salt Creek I project and was oversized to serve future developments in the basin.

#### *Frisbee Trunk Sewer (County of San Diego)*

The Frisbee Trunk Sewer is a 15-inch gravity line that collects flow from the Proctor Valley Trunk Sewer and from an 8-inch line in San Miguel Road. The Frisbee Trunk Sewer conveys sewage westerly to the Spring Valley Outfall.

### ***Sewer Lift Station***

The City Council has a policy (Policy #570-03) which states that it is the City's desire to minimize the use of sewage pump stations, however, if they are established, provision should be made for financing the maintenance and operations costs associated with those stations. Sewer lift stations must be evaluated pursuant to this policy. Based on the results of a developer-prepared study which analyzed the feasibility of constructing a gravity sewer line versus a sewage pump station, a sewage lift station is being proposed for Neighborhood L to serve approximately 40 lots (see Figure 1-23).

### ***7.4.3 Recommended Sewer Facilities***

This section presents a discussion of the onsite sewer facilities recommended to serve the San Miguel Ranch project as well as an evaluation of capacity in existing offsite facilities.

#### ***Onsite Improvements***

Exhibit A at the back of this report provides the recommended onsite sewer facilities for the San Miguel Ranch project. Hand calculations were performed to verify the regional onsite sewer sizing. The sewer design also accommodates the projected sewer flow from the adjacent Vista Mother Miguel property, currently proposed for 43 single family dwelling units. As shown, 8-inch gravity sewers are adequate to serve the project with connections to the Proctor Valley Trunk Sewer at several locations. A small onsite sewer lift station will be required to provide sewer service to approximately 40 residential lots on the northwest portion of the project.

#### ***Proctor Valley Trunk Sewer***

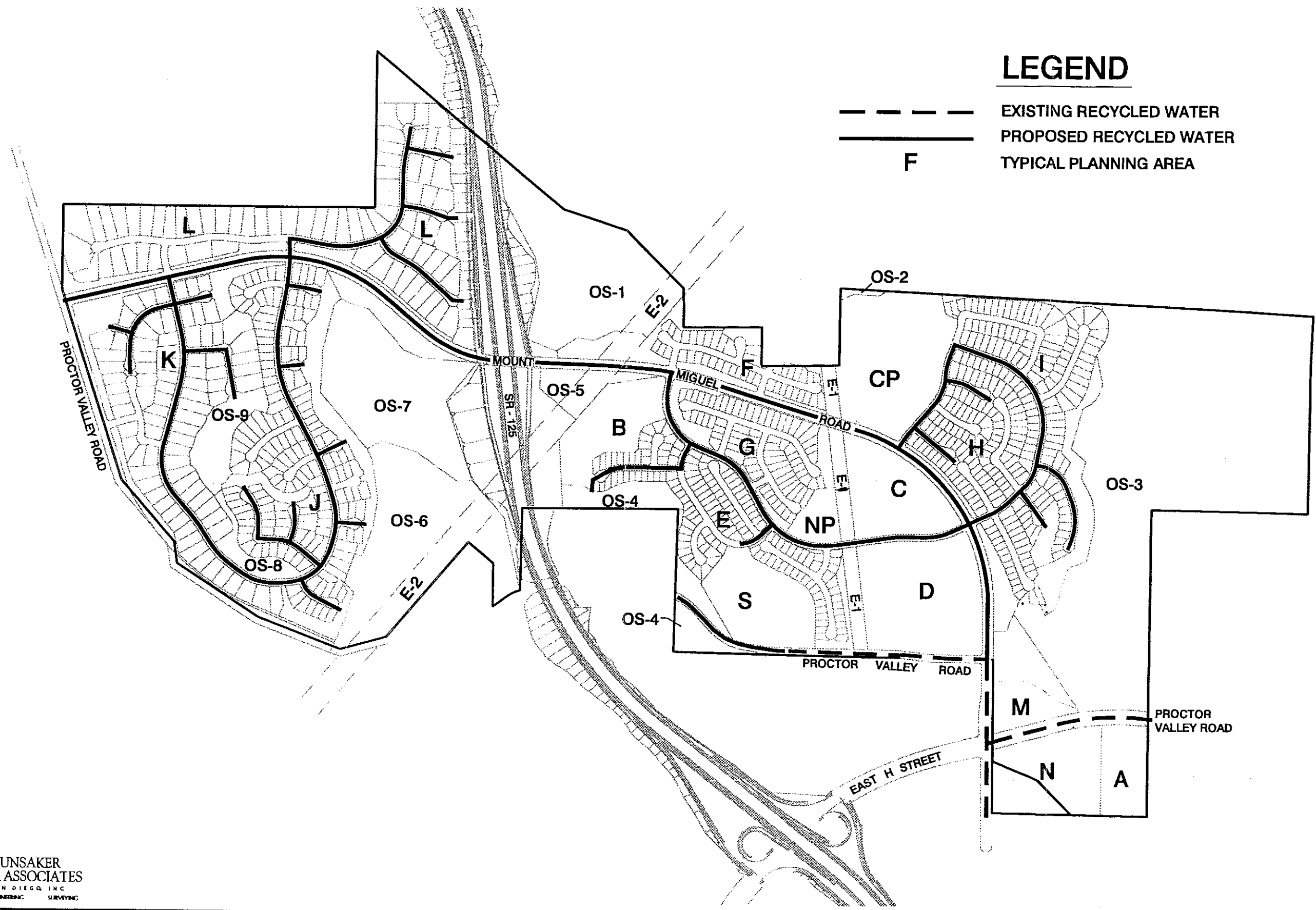
The Proctor Valley Trunk Sewer varies in diameter from 10-inches to 15-inches. Existing flows in this sewer line are from the Salt Creek I project and the Salt Creek Ranch project. The Salt Creek Ranch project is currently being developed, but for the purposes of the Technical Studies, projected sewage flows to the Proctor Valley Basin were assumed to be existing. The Technical Studies present a reach-by-reach analysis of the Proctor Valley Trunk Sewer and verify that adequate capacity exists to serve the proposed San Miguel Ranch project.

#### ***Frisbee Trunk Sewer***

Previous sewer studies performed by Wilson Engineering (January 1991) and Rick Engineering (October 1996) concluded that the Frisbee Trunk Sewer has adequate capacity to serve ultimate future development from the Proctor Valley Basin. Since the intensity and unit count of San Miguel Ranch project development plan has not changed significantly since the time of those studies and the project only represents a portion of ultimate potential development from the basin, it has been concluded that the Frisbee Trunk Sewer has available capacity to serve the San Miguel Ranch project.

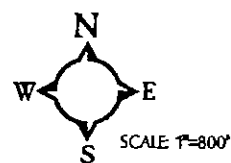
# LEGEND

- EXISTING RECYCLED WATER
- PROPOSED RECYCLED WATER
- F TYPICAL PLANNING AREA



**H&A** HUNSAKER & ASSOCIATES  
SAN DIEGO, INC.  
PLANNING ENGINEERING SURVEYING

# San Miguel Ranch








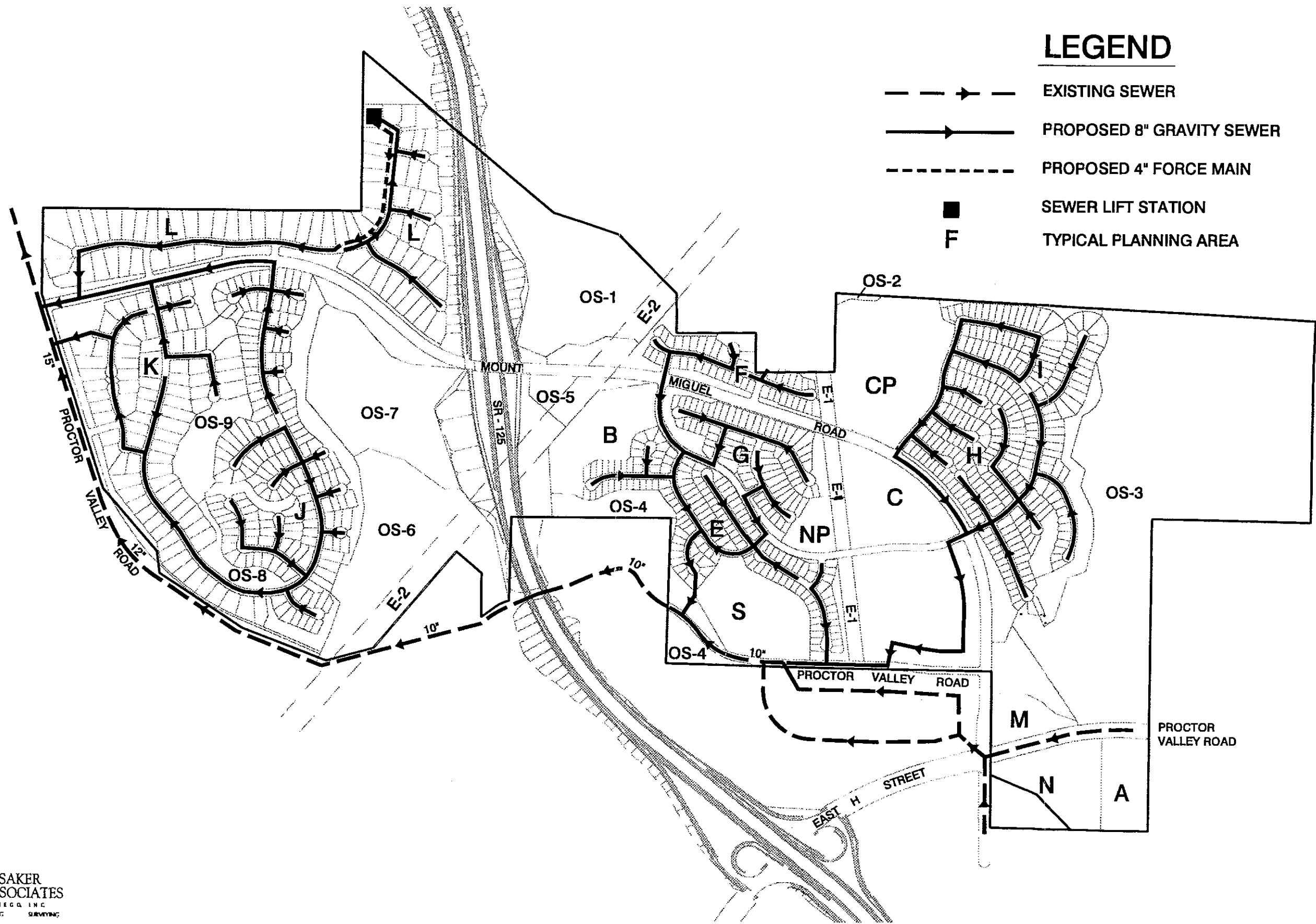
# PROPOSED RECYCLED WATER PLAN

Figure 1-22



# LEGEND

-  EXISTING SEWER
-  PROPOSED 8" GRAVITY SEWER
-  PROPOSED 4" FORCE MAIN
-  SEWER LIFT STATION
-  TYPICAL PLANNING AREA



**H & A**  
**HUNSAKER & ASSOCIATES**  
 SAN DIEGO, INC.  
 PLANNING ENGINEERING SURVEYING

# San Miguel Ranch

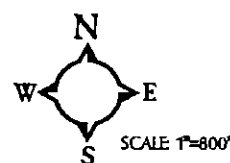


Figure 1-23

# PROPOSED SEWER PLAN

## 7.5 Storm Drainage System

The project site is within the lower Sweetwater subunit of the Sweetwater Hydrologic Unit, one of 11 major drainage basins within the San Diego Basin. Annual precipitation in the Lower Sweetwater subunit varies from approximately 11 to 14 inches. The project site is included in the watershed of the Proctor Valley tributary of the Sweetwater River.

The existing site is generally rugged terrain covered predominantly with native grasslands. The majority of the site is located southerly of a ridgeline running in an east-west direction including Gobblers Knob and Horseshoe Bend. Drainage in this basin flows southerly through small tributary canyons to Proctor Valley. Portions of the site located northerly of this ridgeline flow northwesterly through Wild Mans Canyon and other small tributary canyons to the Sweetwater River. The Sweetwater River flows westerly to its confluence with Proctor Valley northwesterly of the site.

The proposed development at San Miguel Ranch will entail grading, infill of drainages and construction of impervious surfaces. The City of Chula Vista Subdivision Manual requires runoff from proposed development to be detained so that peak flow rates for a given design storm do not exceed peak flows in the pre-developed condition. A preliminary hydrology study and a detention basin analysis have been prepared for the San Miguel Ranch project (by Hunsaker & Associates, dated February 16, 1999 and August 31, 1999 respectively) which verify that post-development peak flows are not exceeded. The existing condition analysis includes the buildout of Salt Creek Ranch, currently under construction. The effect of the proposed development without any new detention was analyzed for comparison purposes.

The San Miguel Ranch will consist of residential lots, community parks, an elementary school site, multi-family sites, a commercial site, and open space. Proposed drainage facilities will include drainage inlets connected by underground drainage pipe. The pipe system will outlet into existing canyons or existing drainage facilities. The Salt Creek No. 1 residential development, located southeast of San Miguel Ranch, contains an existing underground system within Proctor Valley Road. A part of the proposed school site and portions of Planning Areas D and E will drain to and connect with the existing 60-inch pipe in Proctor Valley Road. The remainder of the drainage system will outlet into four existing canyons. To decrease peak flows from the site, energy dissipators, such as rip-rap, will be used at all drainage outlets, and detention basins are proposed to be used at 3 locations.

Detention basins will be designed with access for maintenance purposes. These basins will have maintenance assured through the formation of an Open Space District via a Community Facilities District, or through a Homeowner's Association, to be financed by the residents benefitting from these basins, including the Vista Mother Miguel subdivision.

Beginning at the westernmost end of the project, runoff for an area encompassing Planning Areas J, K, and the westerly portion of L, will drain and discharge to a point near the intersection of Mount Miguel Road and Proctor Valley Road. Storm runoff will enter the inlets located within the proposed public street, be carried in pipes and ultimately discharge into a proposed detention basin at the southeast corner of Mount Miguel Road and Proctor Valley Road before exiting and entering the natural drainage channel offsite. The detention basin at this location has been sized to reduce the combined developed flows to less than the combined pre-development flows (Hunsaker & Associates, Detention Basin Analysis dated August 31, 1999).

The easterly and north portion of Planning Area L will drain north in pipes and discharge into a proposed basin located just west of the SR 125 alignment. This basin was modeled as a dike with a 54-inch culvert and a 10-foot long overflow weir. Based on the drainage analysis (Hunsaker & Associates, August 31, 1999), the post development peak flows will be less than existing runoff rates and no detention is necessary.


The area east of the SR 125 alignment has three discharge points. The largest encompasses Planning Areas B, C, D, E, F, G, portions of H, and I and the school site. The runoff from these areas will be picked up in inlets located in the public street and be carried in pipes to a point adjacent to the school site and Proctor Valley Road. An existing 66-inch storm drain pipe in Proctor Valley Road also discharges adjacent to the proposed school site.

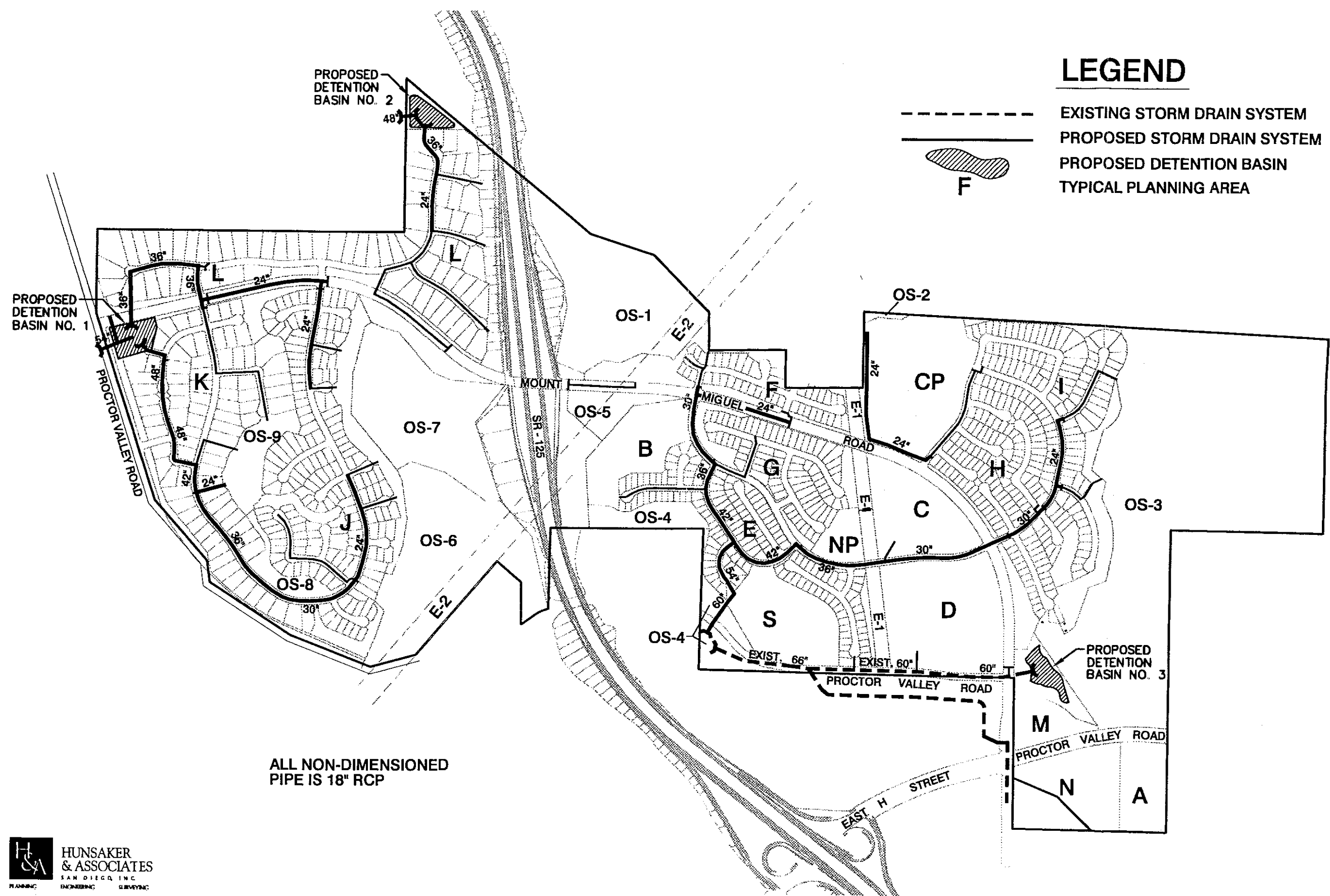
The community park and the westerly portions of the Planning Area H and I will drain and discharge to a point north of the community park.

Planning Areas M, N and A will discharge into existing storm drain pipes in Mt. Miguel Road and Proctor Valley Road, east of Mt. Miguel Road. This existing system was constructed as a part of Salt Creek I and Salt Creek Ranch. A third detention basin located east of Mt. Miguel Road in Open Space 3 will be provided by modifying the existing inlet structure to provide a 60-inch stand pipe with a top elevation of 558. This modification is anticipated to reduce the peak flow runoff at this location to less than existing runoff rates (Hunsaker & Associates, Detention Basin Analysis dated August 31, 1999).

The locations of proposed detention basins are shown on the storm drain plan. Preliminary backbone storm drain pipe sizes are also shown. These are pipes 36-inch or larger. Smaller size pipes are proposed ranging in size from 30-inch down to 18-inch but are not included in the SPA as these are not backbone pipes. Energy dissipators will be used at every discharge location. Specific design of dissipators will be based on the individual location and characteristics of the flow velocity and quantity. More detailed drainage plans will be shown on the tentative map.

# LEGEND

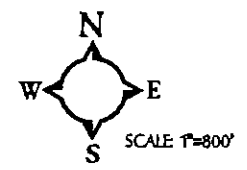
- EXISTING STORM DRAIN SYSTEM
- PROPOSED STORM DRAIN SYSTEM
-  PROPOSED DETENTION BASIN
- TYPICAL PLANNING AREA



ALL NON-DIMENSIONED  
PIPE IS 18" RCP



# San Miguel Ranch



# PROPOSED STORM DRAIN PLAN

Figure 1-24

## **7.6 Urban Runoff**

Storm water quality control for San Miguel Ranch will be considered as two phases. The first is storm water quality control during construction and the second, after project build out.

In conformance with the National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000002 and as a condition of the California State Water Resources Control Board (SWRCB) Order No. 92-08-DWQ, San Miguel Ranch will have a Storm Water Pollution Prevention Plan (SWPPP) prepared prior to the start of construction activity that may affect the quality of the storm water runoff from construction sites. The SWPPP will identify construction practices and storm water management practices which will be implemented to abate pollutants in storm water discharges from the construction site.

Build-out or post-construction water quality will be maintained by first, providing energy dissipators such as rock rip-rap pads at all canyon outlets to dissipate the energy of the outlet flows to minimize erosion. The second water quality feature will be to utilize the project detention basins not only for detention to offset (detain) post-development peak discharges, but also as desiltation basins where silt can accumulate and be removed. In addition, the basins with their flat bottom design will allow for gradual infiltration of low flows (non-rainy season urban runoff), which will further enhance removal of pollutants.

The technical data and location of the detention basins is provided in the technical studies by Wilson Engineering and the Master Drainage Plan by Hunsaker & Associates San Diego. The system is depicted in Figure 1-24.

## **7.7 Roads**

Roads included in San Miguel Ranch are addressed in Chapter 2.3 (Circulation) of this SPA Plan. The Public Facilities Financing Plan (Volume 4 of the SPA Plan package) details the phasing and financing for the street system.

## **7.8 Schools**

San Miguel Ranch SPA Plan proposes to construct 1,394 dwelling units upon completion of the project. At full buildout, the project is projected to generate approximately 418 elementary students, who will be served by the Chula Vista Elementary School District, and 446 middle and high school students, who will be served by the Sweetwater Union School District.

San Miguel Ranch is reserving a 10-acre elementary school site as required by the Amended General Development Plan, located along Proctor Valley Road. The site will be reserved for acquisition by the Chula Vista Elementary School District, as provided in the Public Facilities Financing Plan. The Sweetwater Union School District provides secondary education (grades 7-12) for the area. Existing schools

in the area include Bonita Vista High School and Junior High School, both located near the intersection of East "H" Street and Otay Lakes Road, Eastlake High School located within the Eastlake community, and a new junior high school, Rancho del Rey Middle School, at East J Street and Paseo Ranchero.

Funding for schools will be provided through formation of a Mello-Roos Community Facilities District. The applicant has voluntarily agreed to enter into a school mitigation agreement for full mitigation funding of elementary and secondary schools through a Mello-Roos Community Facilities District. The existing and planned facilities are expected to be adequate to serve the project.

Adult school services are provided in the evening at local school district facilities. Southwestern College, located approximately 1 mile southwest of San Miguel Ranch, provides community college services to local residents.

## **7.9 Child Care Facilities**

The City adopted the Child Care Element of the Chula Vista General Plan in March, 1995. The purpose of the Child Care Element is "to provide comprehensive policy direction for the provision of adequate child care facilities necessary to serve existing and future developed areas in the City in a coordinated and effective manner." Through community design and the dissemination of information as promoted in the Child Care Element, potential child care providers can be better informed and have an opportunity to located facilities when and where needed.

San Miguel Ranch may have a variety of child care providers, such as school, church, non-profit or commercial facilities. Child care facilities may be located within private homes, the commercial center, and/or community purpose facility. Family day care homes and facility-based child care centers are discussed below.

Home-based child care includes small family day care homes (SFDCH) that serve up to 8 children and large family day care homes (LFDCH) that serve 9-14 children. Consistent with Chula Vista zoning regulations, SFDCHs could potentially be located within all residential zones in the San Miguel Ranch SPA. Since the State of California has family day care home licensing responsibility, all family day care homes within the San Miguel Ranch SPA would be required to comply with both state and local regulations.

The City of Chula Vista has established specific requirements for operating a large family day care home, which have been incorporated in the PC District Regulations for San Miguel Ranch (see Volume 3 of the SPA Plan package). Facility-based child care may be conducted by non-profit, quasi-public organizations or commercial providers. These facilities may be located on non-residential parcels including the CR and CPF sites.

The State has adopted regulations related to licensing, application procedures, administrative actions, enforcement provisions, continuing requirements and physical environment for child day care and day care centers. All child care facilities within the SPA will need to comply with state, as well as local regulations.

### **7.10 Police and Fire Services**

The Chula Vista Police Department will provide police service for the project area following annexation to the City. The property is currently served by the County Sheriff's Department. It is expected that the San Miguel Ranch development will increase the demand for police services in the project area. The City's General Plan requires the increase of police services for the Eastern Territories with funds being provided through payment of public facilities DIF fees. The San Miguel Ranch project is within the boundaries of the public facilities DIF program and will pay the fee in effect when building permits are issued.

San Miguel Ranch is not currently within Fire Protection District but is served by the California Division of Forestry for wildland fire suppression only. Upon annexation to the City, the responsibility for fire services will be transferred to the City of Chula Vista Fire Department. The closest City fire station to the project is located in western section of Rolling Hills Ranch near the eastern edge of the San Miguel Ranch.

### **7.11 Library Services**

Library services are provided by the City of Chula Vista. The City operates a central library, which is located at 4<sup>th</sup> Avenue and "F" Streets in central Chula Vista, to serve the entire community. Growth in eastern Chula Vista has raised questions as to how library service should be provided within the Eastern Territories, and in what locations. Currently, the city operates a shared facility on the EastLake High School campus which provides neighborhood library services.

A Library Service Master Plan has been completed which suggests a branch library in the eastern area of the City should be considered. Rancho del Rey reserved a site for a City library along East "H" Street. In addition, there is a one-acre site reserved for a library within the EastLake Village Center.

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# CHAPTER VIII

## AIR QUALITY

### **8.1 Introduction**

The Chula Vista Growth Management Element and the San Miguel Ranch GDP require SPA documents to include air quality plans. This section satisfies the City's Growth Management Program and the GDP requirements. The Air Quality Improvement Plan is included as Volume 6 of the SPA Plan package, and is summarized below.

### **8.2 Goals**

The following are goals of the San Miguel Ranch SPA Air Quality Improvement Plan:

- a. To minimize air quality impacts during and after construction of projects within the plan area.
- b. To comply with the air quality standards and policies of the City of Chula Vista and San Diego County APCD.
- c. To create a framework for the design and implementation of air quality mitigation measures in this development project.
- d. To be economically efficient and cost effective.

### **8.3 Sources of Air Quality Impacts**

The proposed project will impact air quality primarily through the vehicular traffic generated by project residents. Mobile source impacts occur basically on two scales of motion. Regionally, site-related travel will add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed. Locally, project traffic, will be added to the Chula Vista roadway system near the project site. If such traffic occurs during periods of poor atmospheric ventilation, is comprised of a large number of vehicles "cold-started" and operating at pollution inefficient speeds, and is driving on roadways already crowded with non-project traffic, there is a potential for the formation of microscale air pollution "hot spots" in the area immediately around points of congested traffic. With continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, air pollution "hot spot" potential is steadily decreasing. Standards for carbon monoxide (CO), the most typical indicator of any "hot spot" potential, have not been exceeded at any air basin monitoring station since 1990.

Secondary project-related atmospheric impacts derive from a number of other small, growth-connected emissions sources such as temporary emissions of dusts and fumes during project construction, increased fossil-fuel combustion in power plants from project electricity requirements, evaporative emissions at gas stations or from paints, thinners or solvents used in construction and maintenance, increased air travel from area visitors, dust from tire wear and re-suspended roadway dust, etc. All these emission points are either temporary, or they are so small in comparison to project-related automotive sources such that their impact is less important. They do point out, however, that growth engenders increased air pollution emissions from a wide variety of sources, and thus further inhibits the near-term attainment of all clean air standards in the San Diego Air Basin (SDAB).

Possible impact significance was identified for construction dust (PM-10) and equipment NO<sub>x</sub>, and for operational vehicular and stationary source emissions.

The City of Chula Vista AQIP program does not distinguish between severity of significance. Any emissions will incrementally impede attainment of standards, and should therefore be mitigated to the extent feasible within a constraint of a reasonable cost benefit.

In order for the plan to be effective, it is necessary to clearly assign appropriate roles and responsibilities to all of the participants in the development and occupancy phases of projects within San Miguel Ranch SPA. There are three primary groups involved: developer/builders, government/service agencies, and future residents/tenants. Each has an important role to play, as described below.

## **8.4 Roles and Responsibilities**

### ***Developer/Builders***

The master developer, Trimark Pacific - San Miguel LLC, will provide planning and management of this program. Community level transportation facilities, vehicular and non-vehicular, will be implemented by the master developer.

Individual builders may construct homes according to the standards set by the master developer (and the City) and will be responsible for energy planning and management within their own project. Builders will also be the primary communicators with home buyers. In this role, they will be responsible for identifying the energy conservation features incorporated in the project, and educating home buyers regarding a continuing conservation effort.

### ***Government Service Agencies***

The City of Chula Vista has provided the basic design of this program, and will review and approve project plans and monitor this plan. Because of its development approval role, the City can effectively enforce transportation phasing and other

standards for new construction. Some local public transportation systems are operated under authority of the City in cooperation with regional operators. The City can also be a source of on-going education and air quality awareness through citizen communication programs.

The San Diego APCD will adopt regional air quality plans which will implement measures to meet state and federal standards. Although these plans will focus primarily on transportation issues, land use and indirect source guidelines will also be included. State law prohibits the intrusion of the APCD on the land use decision authority of the City, so it will be up to the City to implement any such guidelines. The City will enforce implement action of these guidelines during tentative map, precise plan and site plan approval process.

The City of Chula Vista has developed design guidelines for project construction and operations that best meet the objectives of the AQIP. An optimally effective AQIP is one that best incorporates these guidelines within the constraints of project scope, location, character and other emissions-determining features. Because trip diversion to non-single occupant vehicle modes is far more effective for industrial or high density commercial uses served by multiple types of transit opportunities, emissions reduction potential from AQIP implementation for predominantly residential development in the eastern Chula Vista growth area is very limited. Each of the following candidate design measures must therefore be evaluated and integrated into the development as fully as possible if any measurable benefits are to accrue.

#### ***Property Owners/Residents/Tenants***

The long term success of the air quality mitigation effort rests with residents who choose their own modes of transportation, driving habits and lifestyles. In the aggregate, choices by residents/tenants affect the air quality in the region more than any effort by the City or developer.

Generally, commercial and industrial are the land uses which have significant opportunities to incorporate air quality/transportation mitigation measures because of the concentrated number of automobile trips associated with them. The decision to utilize public transit or non-vehicular transportation will rest with future residents, influenced by the availability and convenience of such facilities provided in the project.

## ***8.5 Required AQIP Strategies***

### ***8.5.1 Construction Emissions***

1. Heavy-duty construction equipment with modified construction/fuel injection systems for emissions control shall be utilized during grading and construction.

2. Disturbed areas shall be hydroseeded, landscaped or developed as soon as possible and as directed by the City to reduce dust generation.
3. Trucks hauling fill material shall be covered.
4. A twenty-mile-per-hour speed limit shall be enforced on unpaved surfaces.
5. To control dust raised by grading activities, the graded area shall be watered twice a day. Other mitigation measures shall be considered and implemented upon City approval. Such measures may include, but are not limited to, phasing grading so that relatively smaller areas are exposed and revegetating graded areas as rapidly as possible.

### **8.5.2 Site Operations**

6. All swimming pools shall use solar energy with back-up low NO<sub>x</sub> water heaters.
7. Low NO<sub>x</sub> commercial-sized water heaters shall be installed in all the larger on-site facilities.
8. Residential and larger facility gas-fired furnaces shall be outfitted with heat transfer modules providing a 70 percent reduction in NO<sub>x</sub> emissions.
9. The project applicant shall prepare an Air Quality Improvement Plan (AQIP) (this is incorporated as Volume 6 of this SPA Plan) that:
  - d. Provides an analysis of air pollution impacts that would result from the project;
  - e. Demonstrates the best available design to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled;
  - f. Includes implementation of appropriate traffic control measures and other direct or indirect means of reducing emissions; and
  - d. Establishes a monitoring program.
10. A park-and-ride facility shall be implemented within the project area in proximity to SR-125 (the CPF or commercial sites shall be considered as potential sites for a park-and-ride facility).

11. The applicant shall provide facilities such as turnouts, shelters and other amenities to support increased bus service in the vicinity of the project.
12. The project shall incorporate bicycle lanes along designated roads within the project.
13. The project shall incorporate all feasible, relevant, and appropriate mitigation measures developed in the RAQS.
14. Garages shall be wired for 220 volts to accommodate charging of electric vehicles when such vehicles become commercially available in the next decade.

## **8.6 Candidate AQIP Strategies**

### **8.6.1 Air Quality Improvement Plan - Project Construction**

1. **Clearing/Grading**
  - a. Maintain soil moisture at a minimum of 12 percent for any cut-and-fill areas within 100 feet of any adjacent property line to the depth of the cut.
  - b. Water as necessary to prevent a visible dust cloud from exceeding 100 feet in length from any disturbance area.
2. **Disturbed Areas**
  - a. Apply chemical stabilizer or establish vegetation on any disturbed area to be left unattended for more than 60 days to prevent a visible cloud from forming during high wind conditions.
  - b. Water any non-stabilized disturbed areas twice per day until vegetation is established.
3. **Track-Out Control**
  - a. Apply chemical stabilizer or pave the last 100 feet of internal travel path within a construction site prior to public road entry, or,
  - b. Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads.
  - c. Remove any visible track-out into traveled public streets within 30 minutes of occurrence.

- d. Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred.
  - e. Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads.
4. ***Dirt Hauling***  
Cover haul trucks or maintain at least 12 inches of freeboard to reduce blow-off during hauling.
5. ***High Wind Operations***  
Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.
6. ***Off-Road Equipment***  
Provide a low-NO<sub>x</sub> tune-up (engine retard) to all off-road equipment to be operating on the site, and repeat if equipment remains on-site for more than 90 days.

### ***8.6.2 Air Quality Improvement Plan - Site Operations***

1. ***Energy Consumption***
- a. Incorporate enhanced energy conservation features in excess of the minimum requirements of Title 24 of the California Code of Regulations. Consider adoption of the SDG&E "Comfort Wise", EPA's Energy Star, or Louisiana Pacific's "Engineered for Life" programs, or similarly enhanced energy conservation design standards.
  - b. Install energy efficient landscaping in all development common areas.
  - c. Utilize passive design concepts that make use of the naturally mild climate to increase energy efficiency.
  - d. Utilize energy-efficient lighting wherever cost-effective to do so.
  - e. Provide a water and electrical connection that may be accessed for optional solar-assisted water heating for domestic or pool/ spa uses.
  - f. Provide a gas connection to fireplaces to encourage use of log lighters or of artificial fireplace logs.
  - g. Provide an outside natural gas connection to encourage use of gas-fired barbecues.

- h. Provide outside electrical outlets to encourage use of electrically powered yard maintenance equipment.
- i. Provide 220-volt electrical service to the garage for an electrically powered vehicle charging station.

2. ***Trip/VMT Reduction***

- a. Provide an area for bicyclists along project area arterial roadways for access to stores, schools, parks, etc.
- b. Provide cut-through walkways or bike paths to the school site to minimize student travel distance.
- c. Reserve space along project vicinity arterials for possible future transit stops.
- d. Include adequate right-of-way for street plans to accommodate bicycle facilities on all major street and Class I, II and III collector streets within San Miguel Ranch where bicyclists share common road surface with powered vehicles.
- e. Designate a rideshare/environmental coordinator for San Miguel Ranch to disseminate information on ridesharing/mass transit opportunities, recycling and energy conservation for employees and residents within the development.
- f. Insure the availability of more than two phone lines to each home for in-home offices and other telecommuting needs.

### ***8.6.3 Air Quality Improvement Plan - Site Design Features***

The City of Chula Vista has developed guidelines for development of an AQIP that incorporates site design features that best optimize the potential to achieve meaningful trip reduction. Each of the design phase measures that are important at the master plan and development plan level are identified below, including those planned project features that specifically address the City's AQIP objectives.

1. ***Street/Circulation Design with Pedestrian/Bicycle Orientation***

The San Miguel Ranch SPA Plan submitted to the City emphasizes the use of an extensive trail system and connecting activity centers to enable non-vehicular travel. The project is designed with a single loop collector connecting the majority of residential development and simplifying internal circulation. The clustering and connectivity of "activity uses" at a central location within the community encourages the use of non-vehicular modes of travel to these destinations.

2. ***Housing/Employment Density Near Transit***

The project circulation components will improve routes for transit. Transit stops can be incorporated where desired at key intersections. The current plan anticipates transit stops along East "H" Street, Proctor Valley Road and Mount Miguel Road on the eastern edge of the project area. The designation of transit stops and initiation of service are the responsibility of the City transit service. The clustering of transit destinations (e.g., schools, shopping and employment) within the San Miguel Ranch community and the location of higher density residential (Neighborhood A) near transit stops encourages the use of public transit and simplifies routing and scheduling.

The provision of a Park-and-Ride facility in proximity to the project is anticipated. Such a Park-and-Ride facility at East "H" Street and Mount Miguel Road could also provide a staging area for carpools, vanpools, and transit vehicles. This facility should be incorporated into a city-wide system of similar facilities coordinated with public transit routes, including future light rail corridors. The facility should be designed to serve the needs of commuters, including such amenities as bus shelters, landscaping, and commuter oriented commercial services.

3. ***Land Use Mix/Proximity***

The San Miguel Ranch Sectional Planning Area, adopted by the City, includes job opportunities (San Miguel Ranch Commercial Center), recreation (San Miguel Ranch Community Park) education, retail and public facilities (churches) within the community. All of these sites are immediately adjacent or nearby within the community. Full implementation of the community plan would minimize the length and number of automobile trips because of the range of opportunities and services available within the community.

4. ***Site Design with Pedestrian/Bicycle Orientation***

As noted above, the San Miguel Ranch community as a whole has been designed with an extensive and convenient pedestrian, equestrian and bicycle trail system (see Trails Plan, Figure 1-14). In order to improve pedestrian experience along major streets, meandering walks or non-contiguous sidewalks both with landscaped areas separating the path from traffic are provided on all the major streets in the project (see Street Section in Chapter III). Pedestrian/bicycle "short cuts" have been included in the plan via open cul-de-sacs which provide more direct routes to neighborhood/community destinations and encourage use of alternative modes of transportation. Final design and location of "short cuts" will be determined at the Tentative Map/Precise Plan/Site Plan level.

5. ***Site Design with Transit Orientation***

Placement of buildings and building entrances, particularly public buildings, larger multi-family and non-residential buildings, can encourage transit or



alternative transportation modes. The SPA Plan does not specify building locations. Hence, this issue can be addressed in the Tentative Map and Site Plan/Design Review processes when greater project detail is available. SPA District A at 17.9 dwelling units per acre, is located near the proposed bus stop adjacent to the commercial center at Proctor Valley Road and Mount Miguel Road. The other high density use (SPA District B) is located near the SR-125 ramp.

6. ***Reduced Commercial Parking***

The San Miguel Ranch SPA includes one commercial area. Parking requirements are set forth in the San Miguel Ranch SPA Planned Community District Regulations in Volume 2.

7. ***Bicycle Route Integration with Transit & Employment***

Bike lanes are designated on Mount Miguel Road and Proctor Valley Road, east of Mt. Miguel Road. On other internal streets, bicyclists will be readily able to share the road with motor vehicles due to the low volumes and limited speeds allowed. Project bicycle routes connect to regional systems as indicated in the Circulation Element of the General Plan and will be designed to provide convenient access to all regional destinations including the community park, park-and-ride facility, and nearby commercial and off-site employment centers.

8. ***Energy Efficient Landscaping***

Shading with the proper landscaping can reduce the amount of energy required for air conditioning which can, in turn, reduce emissions at power generating stations. Landscaping is addressed in a conceptual manner in the Design Guidelines component of the SPA submittal. Specific details provided in the Site Plan/Design Review submittals will be used to evaluate proposed landscaping in terms of its shading potential. In general, such shading is most effective where group parking and larger buildings which are air conditioned all day long are involved (i.e., non-residential uses).

A CO<sub>2</sub> Reduction Plan is presently pending before the City of Chula Vista City Council. The CO<sub>2</sub> Reduction Plan, if adopted, recommends measures and criteria requiring that future landscape plans provide energy-efficient landscaping.

9. ***Other Trip Reduction Measures***

Commuting is one of the largest contributors to air pollution. Providing telecommuting space to work at home via computer link can reduce commute trips, traffic congestion, and driving cost. Because this is becoming a popular working alternative, many new homes now include areas designed for computer or home office use. Builders in San Miguel Ranch will continue to provide such features as the market dictates.

The Master Developer should also work with the cable TV provider to include high speed electronic communications connections through the cable TV system. This service is currently available in adjacent neighborhoods. Computer and communication technology is constantly improving and predicting the next breakthrough is impossible. However, the Master Developer should commit to working closely with electronic communication access providers and guest builders to assure new homes are not technologically obsolete when they are built.

Electric or other alternate fuel vehicles are anticipated to achieve substantial market penetration during San Miguel Ranch buildout. Provision of 220-volt access in parking facilities in both single- and multi-family development will preclude the need to later retrofit parking areas. The absence of 220-V power might hinder the rate of electric vehicles being used for commuting needs. Because the fossil-fueled automobile is the dominant source of project-related impact, any measure that eliminates travel with fossil-fueled internal combustion engines provides the highest possible air quality benefit.

# **SAN MIGUEL RANCH**

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## *Sectional Planning Area Plan*

### **Volume 2 PC District Regulations**

***Project Applicant:***

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***Prepared By:***

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**Approved**

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***San Miguel Ranch SPA Plan  
Volume 2  
PC District Regulations***

***TABLE of CONTENTS***

<b><i>CHAPTER/SECTION</i></b>	<b><i>PAGE</i></b>
Chapter I    GENERAL PROVISIONS .....	1
1.1    Purpose and Scope .....	1
1.2    Private Agreements .....	1
1.3    Repeal of Conflicting Ordinances .....	1
1.4    Establishment of Land Use Districts .....	1
1.5    Clarification of Ambiguity .....	6
1.6    Effects of Regulations .....	6
1.7    Enforcement .....	6
1.7.1    Enforcement by City Officials .....	6
1.7.2    Actions Deemed a Nuisance .....	6
1.7.3    Remedies .....	6
1.7.4    Penalties .....	7
1.8    Definitions .....	7
Chapter II    RESIDENTIAL DISTRICTS .....	9
2.1    Purpose .....	9
2.2    Permitted and Conditional Uses .....	9
2.3    Residential Development and Site Planning Standards .....	12
2.4    Residential District Performance Standards .....	18
2.5    Residential District Accessory Structures .....	19
2.6    Walls and Fences .....	19
2.7    Residential District Signs .....	20
Chapter III    COMMERCIAL LAND USE DISTRICT .....	21
3.1    Purpose .....	21
3.2    Permitted and Conditional Uses .....	21
3.3    Commercial District Development and Site Planning Standards .....	26
3.4    Property Development Standards .....	26
3.5    Performance Standards .....	26
Chapter IV    COMMUNITY PURPOSE FACILITY LAND USE DISTRICT .....	29
4.1    Purpose .....	29
4.2    Permitted and Conditional Uses .....	29
4.3    Development and Site Planning Standards .....	29
4.4    Performance Standards .....	30

**TABLE of CONTENTS**  
(Continued)

<b>CHAPTER/SECTION</b>	<b>PAGE</b>
Chapter V <b>PARKS AND OPEN SPACE DISTRICTS</b> .....	33
5.1    Purpose .....	33
5.2    Permitted and Conditional Uses .....	33
5.3    Property Development Standards .....	34
5.4    Site Planning .....	34
 Chapter VI <b>ELEMENTARY SCHOOL LAND USE DISTRICT</b> .....	 35
6.1    Purpose .....	35
6.2    Permitted Uses .....	35
6.3    Property Development Standards .....	35
 Chapter VII <b>SPECIAL OR TEMPORARY USES AND CONDITIONS</b> .....	 37
7.1    Purpose .....	37
7.2    Temporary Uses .....	37
7.3    Home Occupations .....	39
7.4    Arcades .....	40
7.5    Recreational Courts .....	40
 Chapter VIII <b>COMPREHENSIVE SIGN REGULATIONS</b> .....	 43
8.1    Purpose .....	43
8.2    Permit Requirements and Review Procedures .....	44
8.2.1    Sign Permit Exceptions .....	44
8.2.2    Prohibited Signs and Lighting .....	48
8.2.3    Signs Relating to Inoperative Activities .....	49
8.2.4    Enforcement, Legal Procedure and Penalties .....	50
8.2.5    Construction and Maintenance .....	50
8.3    Sign Regulations .....	50
8.3.1    Signs Permitted in Any Land Use District .....	50
8.3.2    Commercial, Community Purpose and Multi-Family signs .....	54
8.4    Sign Design Standards .....	57
8.4.1    Relationship to Buildings .....	57
8.4.2    Landscaping .....	57
8.4.3    Illumination and Motion .....	57
8.4.4    Sign Copy .....	58
8.4.5    Relationship to Streets .....	58
 Chapter IX <b>OFF-STREET PARKING</b> .....	 59
9.1    Purpose .....	59
9.2    General Provisions .....	59
9.3    Schedule of Off-Street Parking Requirements .....	60

**TABLE of CONTENTS  
 (Continued)**

<u>CHAPTER/SECTION</u>	<u>PAGE</u>
9.4 Parking Development Standards .....	63
9.4.1 General Requirements .....	63
9.4.2 Special Requirements .....	64
9.5 Performance Standards .....	65
 Chapter X ADMINISTRATION .....	 67
10.1 Purpose .....	67
10.2 Standard Procedures .....	67
10.3 Administrative Review .....	67
10.4 Site Plan and Architectural Approval .....	68
10.5 Conditional Use Permit Review .....	68
10.6 Other Provisions .....	69

<u>FIGURES</u>	<u>PAGE</u>
Figure 2-1 SPA Land Use District Plan .....	3
Figure 2-2 Measuring Locations for Building Setbacks .....	15
Figure 2-3 Measurements for Minimum Lot Area and Setbacks for Lots with Internal Slopes .....	16
Figure 2-4 Measurement of Split Side Yard Requirements .....	17

<u>TABLES</u>	<u>PAGE</u>
Table 2-1 Chart of SPA Land Use Districts .....	5
Table 2-2 Permitted Use Matrix-Residential Districts .....	10
Table 2-3 Development Standards – Residential Districts .....	13
<b>Table 2-3A Development Standards – Residential Districts (Rev. 6/05/01).....</b>	<b>13A</b>
<b>Table 2-3B Maximum Building Area .....</b>	<b>14B</b>
Table 2-4 Permitted Use Matrix-Commercial District .....	22
Table 2-5 Development Standards – Commercial Districts .....	28
Table 2-6 Permitted Use Matrix – Community Purpose Facility District .....	30
Table 2-7 Development Standards - Community Purpose Facility District .....	32
Table 2-8 Temporary Uses .....	38
Table 2-9 Off-Street Parking Requirements .....	61
Table 2-10 Parking Table Design Standards .....	64

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**SAN MIGUEL RANCH P.C DISTRICT REG AMENDMENTS**

- 1) Ordinance 2837. Dated 6/12/01 changed floor area ratio and lot coverage.
- 2) Ordinance 2902. Dated 4/8/03 changed area G's land-use district from SF4 to SF3.



# CHAPTER I

## GENERAL PROVISIONS

### ***1.1 Purpose and Scope***

This Volume of the SPA Plan contains the Planned Community (PC) District Regulations, which establish the Development Standards for San Miguel Ranch. These PC District Regulations are adopted pursuant to Title 19, Zoning, of the Chula Vista Municipal Code and are intended to:

- Ensure that the development within San Miguel Ranch is consistent with and implements the approved GDP.
- Implement the City's General Plan for the Eastern Territories.
- Promote the orderly planning and long-term sequential development of San Miguel Ranch to the benefit of the surrounding community.
- Provide standards for the compatibility of land uses within the project and to the surrounding areas.

These regulations are established for the purpose of promoting and protecting the public health, safety and welfare for the people of the City of Chula Vista; to safeguard and enhance the appearance and quality of development of San Miguel Ranch; and to provide the social, physical and economic advantages resulting from comprehensive and orderly planned use of land resources.

### ***1.2 Private Agreements***

The provisions of these PC District Regulations are not intended to abrogate any easements, covenants, or other existing agreements which are more restrictive than the provisions contained within these PC District Regulations.

### ***1.3 Repeal of Conflicting Ordinances***

Whenever the provisions of these PC District Regulations impose more, or less, restrictive regulations upon construction or use of buildings and structures, or the use of lands/premises than are imposed or required by other ordinances previously adopted, the provisions of these PC District Regulations or regulations promulgated hereunder shall apply.

### ***1.4 Establishment of Land Use Districts***

The San Miguel Ranch SPA hereby establishes the Land Use Districts as shown in Table 2-1 in order to classify, regulate, restrict and separate the use of land, buildings and structures; to regulate and limit the type, height and bulk of buildings and

structures in the various districts; to establish the areas of yards and other open space areas abutting and between buildings and structures; and to regulate the density of population.

San Miguel Ranch has been divided into Planning Areas for the general purpose of establishing land uses, identifying potential phasing areas, allocating incremental costs and responding to significant physical separations and may be used as the basis for describing possible future phasing plans.

For purposes of development standards regulations, each Planning Area is located within one of the Land Use Districts, as shown on Figure 2-1 and the development regulations for that neighborhood shall be based on the standards for the designated district. Table 2-1 provides a summary of the district designation for each Planning Area.

#### ***Adoption of Land Use Districts / Maps***

Land Use Districts and boundaries of said districts are hereby established and adopted as shown in Figure 2-1, delineated and designated on the San Miguel Ranch SPA Land Use District Map of the City of Chula Vista. These maps, together with all notations, references, data, district boundaries and other information thereon, are made a part of the San Miguel Ranch SPA Plan and are adopted concurrently.

The original San Miguel Ranch SPA Plan Land Use District Map shall be kept on file with the City Clerk and shall constitute the original record. A copy of said map shall also be filed with the City Planning Department.

#### ***Changes to the SPA Land Use District Map***

Changes to the boundaries of the land use districts shall be made by Ordinance and shall be reflected on the San Miguel Ranch SPA Land Use District Map. Minor changes in Land Use District boundaries may be made to the Land Use District Map as an administrative matter subject to the discretion of the Director of Planning and Building, where such revisions are based on approval of a Tentative or Final Map.

#### ***Area Measurements***

The individual acreage areas indicated in the Land Use Summary Table (Table 1-2 in Volume 1) may be subject to minor modifications resulting from technical refinements such as land surveys performed during the development permit and subdivision process. Such minor modifications will not require an amendment to this document, providing that the spirit and intent of the original is maintained as determined by the Director of Planning and Building.

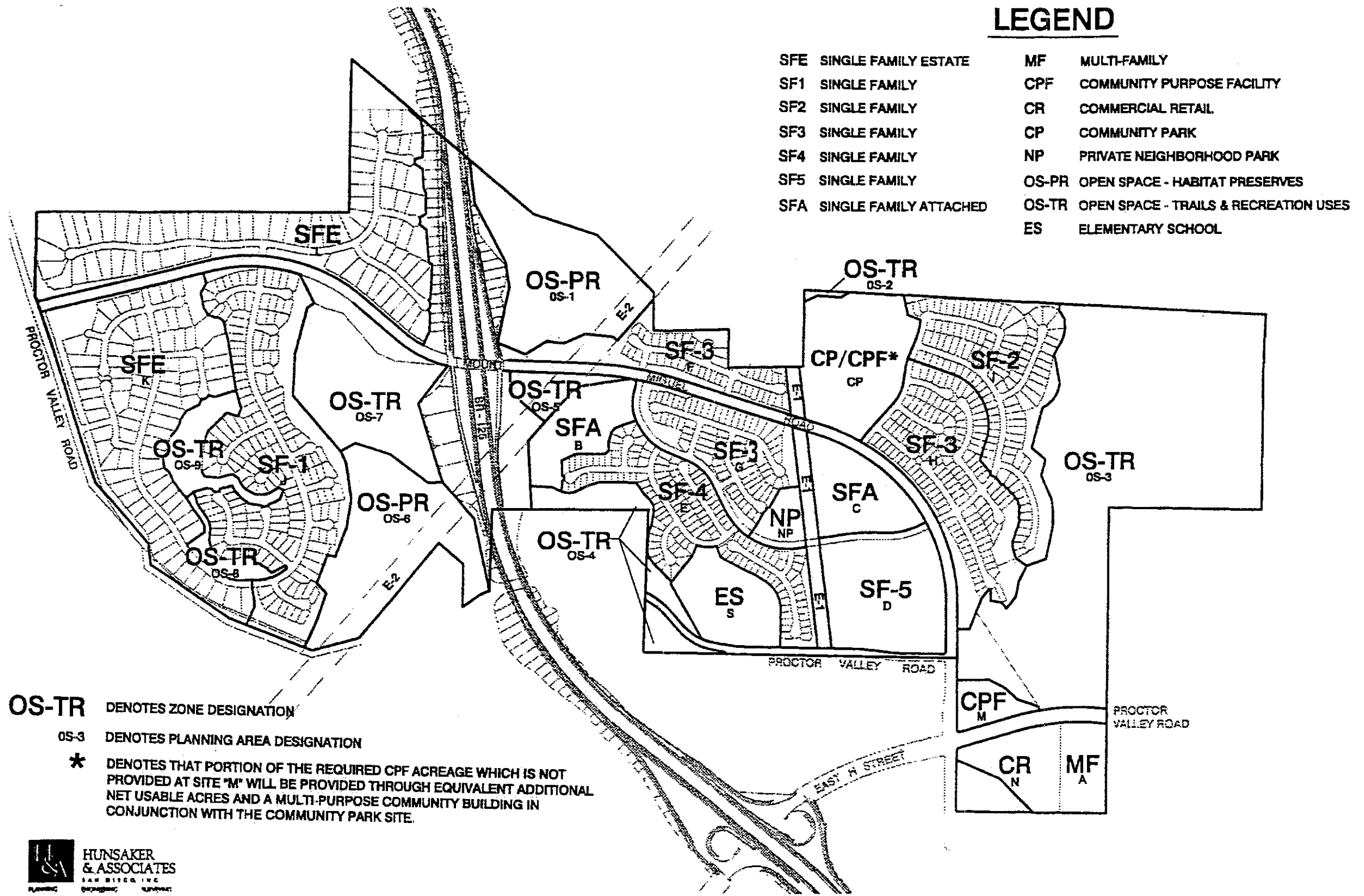
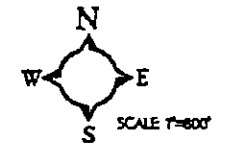


Figure 2-1

# San Miguel Ranch



## LAND USE DISTRICT PLAN

updated 12/30/04

**Table 2-1  
Chart of SPA Land Use Districts**

Land Use District Symbol	Land Use District Name	SPA Planning Areas	Land Use Summary Description
SFE	Single Family Estate	I, K	Single-Family Detached Homes on large lots. Standard minimum lot size is 20,000 sf, except that up to 25% of the total number of lots, may be a minimum of 15,000 sf, if an average lot size of 20,000 sf is maintained.
SF1	Single Family One	J	Single-Family Detached Homes with minimum lot size of 7,000 sf
SF2	Single Family Two	I	Single-Family Detached Homes with minimum lot size of 6,000 sf
SF3	Single Family Three	F, G, H	Single-Family Detached Homes with minimum lot size of 5,000 sf
SF4	Single Family Four	E	Single-Family Detached Homes with minimum lot size of 4,500 sf
SF5	Single Family Five	D	Single-Family Detached Homes with minimum lot size of 4,000 sf, attached homes or townhomes.
SFA	Single Family Attached	B	Single Family attached units such as townhomes or condominiums.
		C	Single Family attached units such as townhomes and condominiums or high density single-family detached units such as patio homes, zero-lot-line, courtyard, or cluster units, or detached condominiums.
MF	Multi-Family	A	Multi-family housing dwelling units for sale or rent with a density not to exceed 18 units per gross acre.
CR	Retail Commercial	N	Retail shopping center for uses serving the community and neighborhood
CPF	Community Purpose Facility	M, CP*	Community purpose facilities*
ES	Elementary School	S	Elementary school
CP	Community Park	CP	Community park facilities, Community purpose facilities*
NP	Neighborhood Park	NP	Private neighborhood park facilities
OS-PR	Open Space - Habitat Preserve	OS-1, OS-6	Natural open space areas - habitat preserves
OS-TR	Open Space - Trails and Recreation	OS-2 to OS-5 OS-7 to OS-9	Natural and improved open space areas with trails or other recreational uses

\* That portion of the required Community Purpose Facility acreage not provided at SPA Planning Area "M" will be provided through additional net usable acreage in conjunction with the community park site.

## **1.5 Clarification of Ambiguity**

If ambiguity arises concerning the proper classification of a particular land use within the meaning and intent of these PC District Regulations, or if ambiguity exists with respect to height, yard requirements, area requirements or land use district boundaries as set forth herein, it shall be the duty of the Director of Planning and Building to ascertain all pertinent facts concerning such ambiguity and forward said findings and recommendations to the Planning Commission, or on appeal, to the City Council. If approved by the Commission, or on appeal, by the City Council, the established interpretation shall govern thereafter.

Should any provision of these regulations conflict with the regulations of the Municipal Code, the requirements herein shall apply.

## **1.6 Effects of Regulations**

The provisions of these PC District Regulations governing the use of land, buildings, structures, the size of yards abutting buildings and structures, the height and bulk of buildings, the density of population, the number of dwelling units per acre, standards of performance, and other provisions are hereby declared to be in effect upon all lands included within the boundaries of each and every land use district established for San Miguel Ranch by these PC District Regulations.

## **1.7 Enforcement**

### **1.7.1 Enforcement by City Officials**

The City Council, City Attorney, City Manager, City Engineer, Director of Public Works, Director of Public Safety Director of Planning and Building, City Clerk and all officials charged with the issuance of licenses or permits shall enforce the provisions of these PC District Regulations. Any permit, certificate, or license issued in conflict with the provisions of these PC District Regulations shall be void.

### **1.7.2 Actions Deemed a Nuisance**

Any building or structure erected hereafter, or any use of property contrary to the provision of a duly-approved Design Review, Site Plan, Variance, Conditional Use Permit, or Administrative Review and/or these PC District Regulations shall be declared to be unlawful and a public nuisance per se and subject to abatement in accordance with local Ordinance.

### **1.7.3 Remedies**

All remedies concerning these PC District Regulations shall be cumulative and non-exclusive. The conviction and punishment of any person hereunder shall not relieve such persons from the responsibility of correcting prohibited conditions or removing prohibited buildings, structures, signs improvements, and shall not prevent the enforced correction or removal thereof.

#### ***1.7.4 Penalties***

Any person, partnership, organization, firm or corporation, whether as principal, agent, employee or otherwise, violating any provisions of these PC District Regulations or violating or failing to comply with any order or regulation made hereunder, shall be guilty of an infraction and, upon conviction thereof, shall be punishable as provided by local Ordinance.

#### ***1.8 Definitions***

For the purposes of these PC District Regulations, certain words, phrases and terms used herein shall have the meaning assigned to them by Title 19 of the City of Chula Vista Municipal Code.

When not inconsistent with the context, words used in the present tense include the future; words in the singular number include the plural; and those in the plural number include the singular. The word "shall" is mandatory; the words "may" and "should" are permissive.

For any aspect of land use regulation within the San Miguel Ranch SPA not covered by these district regulations, subsequent plan approvals shall be regulated by the applicable section of the Chula Vista Municipal Code (CVMC).

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## CHAPTER II

# RESIDENTIAL DISTRICTS

### 2.1 Purpose

In addition to those objectives outlined in the GDP, the San Miguel Ranch residential districts are included in these SPA District Regulations to achieve the following purposes.

- Implement the residential goals and objectives of the San Miguel Ranch GDP.
- Reserve appropriately located areas for family living at a broad range of dwelling unit densities consistent with the San Miguel Ranch General Development Plan.
- Provide sound standards of public health, safety and welfare.
- Ensure adequate light, air, privacy and open space for each dwelling unit.
- Minimize the effects of traffic congestion and to avoid the overloading of public services and utilities by phasing construction of buildings in relation to the land area around them and available infrastructure.
- Protect residential properties from noise, illumination, unsightliness, odors, smoke and other objectionable influences.
- Facilitate the provision of utility services and other public facilities commensurate with anticipated population, dwelling unit densities and service requirements.

### 2.2 Permitted and Conditional Uses

The land use regulations for each of the Residential Land Use Districts is shown on Table 2-2. The following uses shall be permitted where the symbol "P" appears. A Conditional Use Permit shall be required for uses where the symbol "C" appears. Uses where the symbol "A" appears shall be permitted, subject to an Administrative Review and/or Zoning Administrator Permit. Where the Symbol "N" appears, said use is not permitted.



**Table 2-2  
Permitted Use Matrix  
Residential Districts**

LAND USE	DISTRICTS							
	SFE	SF1	SF2	SF3	SF4	SF5	SFA	MF1
<b>Residential Uses:</b>								
Single-family detached dwellings	P	P	P	P	P	P	N	N
Single-family attached dwellings	N	N	N	N	N	P	P	N
Duplex dwellings (Paired homes)	N	N	N	N	N	P	P	N
Townhouse dwellings	N	N	N	N	N	P	P	N
Multiple dwellings ( 3 units and above)	N	N	N	N	N	N	P	P
Group residences or residential dwellings, operated by an organization, association or individual with a paid professional staff; uses may include, but are not limited to boarding or rooming homes, dormitories and retirement homes.	N	N	N	N	N	N	C	C
<b>Agricultural Uses:</b>								
All types of horticulture.	P	P	P	P	P	P	P	P
Agriculture crops.	A	A	A	A	A	A	A	N
Keeping of animals subject to CVMC Chapters 6.02, 6.04, and 6.08	P	P	P	P	P	P	P	P
<b>Public and Semi-Public Uses:</b>								
Family daycare homes - large (9-14 children) (subject to CVMC Section 19.58.147).	A	A	A	A	A	A	A	N
Family daycare homes - small (up to 8 children).	P	P	P	P	P	P	A	N
Day nurseries, daycare schools and nursery schools.	N	N	N	N	N	N	C	C
Essential public services, including but not limited to: libraries, museums, parks, public works facilities and other civic uses.	C	C	C	C	C	C	C	C
Public safety facilities such as police or fire stations.	C	C	C	C	C	C	C	C
Public utility and public service sub-stations, reservoirs, pumping plants, telecommunication facilities and similar installations.	C	C	C	C	C	C	C	C

**Key:**

P - Permitted Use

A - Administrative Review and/or Zoning Administrator Permit

C - Conditional Use Permit Required

N - Not Permitted (Prohibited Use)

**Table 2-2  
Permitted Use Matrix  
Residential Districts**

LAND USE	DISTRICTS							
	SFE	SF1	SF2	SF3	SF4	SF5	SFA	MF1
Recreational courts, including but not limited to: tennis, basketball and similar uses.	A	A	A	A	A	A	A	A
<b>Home Occupations:</b>								
Home occupations subject to the provisions of Section 19.14.490 of the CVMC.	A	A	A	A	A	A	A	A
<b>Accessory Uses and Buildings:</b>								
Guesthouses.	A	A	A	N	N	N	N	N
Other accessory uses and accessory buildings customarily appurtenant to a permitted use, subject to the provisions of Section 19.58.020 of the CVMC.	A	A	A	A	A	A	A	A
Temporary tract offices and tract signs, subject to the provisions of Section 19.58.320 and Section 19.60.470 of the CVMC.	A	A	A	A	A	A	A	A
Model homes <sup>a</sup>	A	A	A	A	A	A	A	A

**Key:**  
P - Permitted Use  
A - Administrative Review and/or Zoning Administrator Permit  
C - Conditional Use Permit Required  
N - Not Permitted (Prohibited Use)

- a. Model homes, their garages and private recreation facilities may be used as offices for the first sale of homes within a recorded tract and subsequent similar tracts utilizing the same architectural designs, subject to the regulations of the City of Chula Vista governing said uses and activities.

### **2.3 Residential Development and Site Planning Standards**

The following Property Development Standards shall apply to all land and buildings, other than accessory buildings, permitted in their respective residential land use district. Each of the Residential Land Use Districts is shown on Figure 2-1, and the Development Standards for each District are on Table 2-3. The use of the symbol "SP" indicates that the standard is established by the approval of a Site Plan. Site Plan review is required for any Planning Area proposed for development with a multiple family product, an attached product or a detached product with lot sizes less than 5,000 square feet. This may occur in the SF4, SF5, SFA and MF1 Districts.

Dimensions and standards are minimums. Minor variations may be permitted subject to site plan or tract map approval, providing that the minimums specified herein are maintained. Figures 2-2 and 2-3 serve as references for the measurement of minimum lot area, dimensions and setbacks.

**Table 2-3A  
Development Standards  
Residential Districts**

	SFE	SF1	SF2	SF3	SF4	SF5	SFA	MF1
Min. Lot Area (square feet)	20,000/ 15,000 <sup>a</sup>	7,000	6,000 <sup>b</sup>	5,000 <sup>b</sup>	4,500 <sup>b</sup>	4,000 <sup>b</sup>	SP	N/A
Min Lot Width (feet) <sup>c</sup>								
Measured	100 <sup>d</sup>	60	55 <sup>e</sup>	50 <sup>e</sup>	50 <sup>e</sup>	SP	SP	N/A
Knuckle or cul-de-sac frontage	40	35	35	35	35	SP	SP	N/A
Flag lot frontage	20	20	20	20	20	SP	SP	N/A
Min. Lot Depth (feet) <sup>c</sup>	120	100	90	90	80	SP	SP	N/A
Maximum lot coverage (percent)	35	45	45	50	55	SP	SP	SP
Floor Area Ratio <sup>p</sup>	45	50	55	60	60	SP	SP	SP
Front Yard Minimum Setback <sup>f</sup>								
To house	25	20	15	15	15	SP	SP	SP
To direct entry garage	25	20 <sup>g</sup>	20 <sup>g</sup>	20 <sup>g</sup>	20 <sup>g</sup>	SP	SP	SP
To side entry garage	25	20	15	15	15	SP	SP	SP
To porch	20	17	17	17	15	SP	SP	SP
Side Yard Minimum Setbacks (feet) <sup>f, h</sup>								
To adjacent residential lot	15/10 <sup>i</sup>	10/5 <sup>i</sup>	10/5 <sup>i</sup>	5/5	5/5	SP	SP	SP
To adjacent street (exterior side yard)	20	10	10	10	10	SP	SP	SP
Rear Yard Minimum Setback (feet) <sup>f, h</sup>								
To house <sup>j</sup>	25 <sup>k</sup>	20	15	15	15	SP	SP	SP
To garage with minimum 30-foot driveway	25 <sup>j</sup>	15	5	5	5	SP	SP	SP
Building Height Maximum (feet/# stories)	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	28 ft <sup>l</sup> / 2 stories	45 feet/ 3 stories
Parking Required (Off-Street spaces per Unit) <sup>m</sup>	2 garage spaces	2 garage spaces	2 garage spaces	2 garage spaces <sup>n</sup>	2 garage spaces <sup>n</sup>	2 garage spaces <sup>n</sup>	2 assigned spaces min 1 covered Guest-0.33/ unit <sup>o</sup>	1.5-1BR 2.0-2BR 2.5-3BR+ Guest-0.33/ unit <sup>o</sup>

**Table 2-3A  
Development Standards  
Residential Districts**

(Continued)

Notes:

- a. Within the SFE Districts, including Planning Areas K and L, the standard minimum lot size is 20,000 square feet, however, up to 25% of the lots may be a minimum of 15,000 square feet, provided that the overall average lot size within Planning Areas K and L is not less than 20,000 square feet.
- b. Minimum lot area applies to the graded pad area of the lot (exclusive of slopes) in the SF3, SF4 and SF5 Districts. Minimum pad area within the SF2 District shall be 5500 square feet.
- c. Lot widths and depths are typical minimums but may vary slightly with irregularly shaped lots and site specific conditions. Such variations are subject to approval of a variance, except where the variance requirements can be fulfilled by site plan review required by other provisions of these regulations. Minimums such as lot width and depth may not be used in tandem where they would result in lot area which does not meet the minimum lot area requirement.
- d. The minimum lot width in SFE areas may be reduced to 90 feet for lots which are less than 20,000 square feet as allowed by Note "a" above.
- e. For lots with minimum widths of 55 feet or less, the minimum width standard shall apply to the level pad area (exclusive of any side slope within the lot) and for purposes of this provision, the minimum width may be measured at the building line at the front yard setback.
- f. Architectural features, such as eaves, awnings, chimneys, niches up to 12 feet in length, balconies, steps, stairways, or bay windows may project not more than four feet into any required front or rear yard area, and not more than two feet into any required side yard.
- g. May be reduced to 18 feet with use of roll-up garage door, except that in no case shall the distance to the nearest edge of sidewalk be less than 20 feet.
- h. Building setbacks shall be measured per Figure 2-3, which includes the following provisions:
  - The minimum level area within any side yard shall be 5 feet to top or toe of slope or base of wall for lots with internal slopes.
  - The maximum height of a retaining wall in a side yard is 3 feet.
  - The maximum height of a retaining wall in a rear yard is 5 feet, and where a retaining wall is greater than 3 feet high, a minimum 4-foot horizontal separation is required between the retaining wall and a freestanding fence or wall.
  - The rear yard setback shall be based on the level pad area, measured from the top or toe of slopes for lots with internal slopes.
- i. Where there are slopes within the side yard of a lot, building setbacks shall be measured per Figure 2-4.
- j. In situations where the lot configuration has irregular angles, or otherwise results in an odd-shaped lot or building pad, these minimums may be reduced subject to approval by the Director of Planning and Building.
- k. The minimum rear yard setback is increased to 50 feet for all lots in Planning Area L whose property line(s) abut the SPA boundary of San Miguel Ranch.
- l. Building Height may be increased to 35 feet with Site Plan approval.
- m. Parking standards for Senior Citizen or "affordable" residential development may be reduced from those specified in the District in which it will be located. Such a reduction shall be at the discretion of the City Council through the Conditional Use Permit procedure (CVMC 19.14.080), and subject to a parking study prepared by a registered traffic engineer to ensure adequate parking will be provided.
- n. Guest parking is encouraged to be provided for single family products, in addition to onsite driveway spaces, either on the street where width allows, or in designated parking bays.
- o. Required guest parking spaces shall be marked and clearly identified as guest parking. The guest parking spaces shall not be permitted to be assigned to individual dwelling units.
- p. The allowable building area for construction of dwellings, or any remodeling or additions to dwellings for each lot shall be as determined in Table 2-3B below. The maximum building area for single family detached and attached products, garages, and other accessory structures shall be the square footage listed or that permitted by the percentage of lot area, whichever is less. Homeowner additions shall be allowed only where consistent with these standards. A 300-square foot open patio (covered but open on three sides) shall be permitted on each residential lot and shall be exempt from inclusion in this calculation. All residential development proposals are subject to review for consistency with the San Miguel Ranch Design Guidelines, Residential Design Guidelines Section 4.5 (Single Family) or Section 4.6 (Multi-Family).

**Table 2-3B  
Development Standards  
Residential Districts**

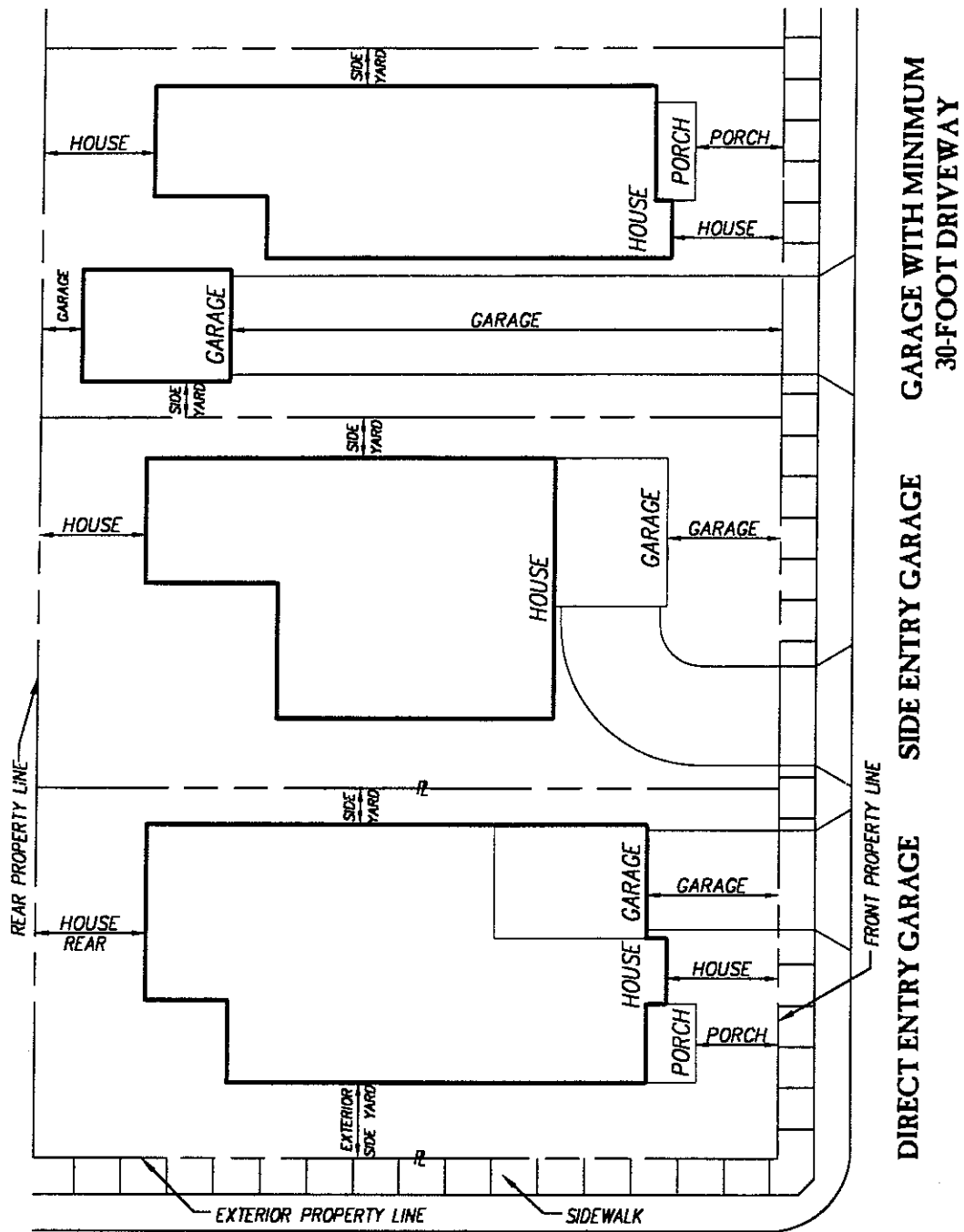
<b>San Miguel Ranch District</b>	<b>Floor Area Ratio (F.A.R.)</b>	<b>Maximum Building Area (Sq. Ft.)</b>
SFE	45	N/A*
SF1	.50	4500
SF2	.55**	4300
SF3	.60**	4000
SF4	.60**	3100 (E)***
SF5	SP	SP
SFA	SP	SP
MF	SP	SP

Table Notes:

- \* Maximum allowable building area will be regulated by coverage and setback regulations in the SFE Land Use District.
- \*\* The maximum allowable F.A.R.'s in the SF2, SF3 and SF4 Districts are as follows. Lot numbers are as shown on Chula Vista Tract 99-04, approved 2/29/00 (Tentative Map PCS-99-04):  
 SF2: .60 for lots 1-21, 38-40, and 43-51 in Neighborhood I.  
 SF3: .65 for lots 6-8, 11-15, and 37-41 in Neighborhood H.  
 SF4: .65 for lots 109-119 in Neighborhood E.
- \*\*\* In the SF4 District, the maximum allowable building area shall be 3100 square feet in Neighborhood E.
- SP – Standards to be determined concurrently with Site Plan and Architectural approval.

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# MEASURING LOCATIONS FOR BUILDING SETBACKS



NOTE:  
ALL SETBACKS TO BE MEASURED FROM THE  
PROPERTY LINE, EXCEPT WHERE FIGURES 2-3  
AND 2-4 APPLY.

**HUNSAKER & ASSOCIATES**  
SAN DIEGO, INC.  
PLANNING ENGINEERING SURVEYING

Figure 2-2

# San Miguel Ranch

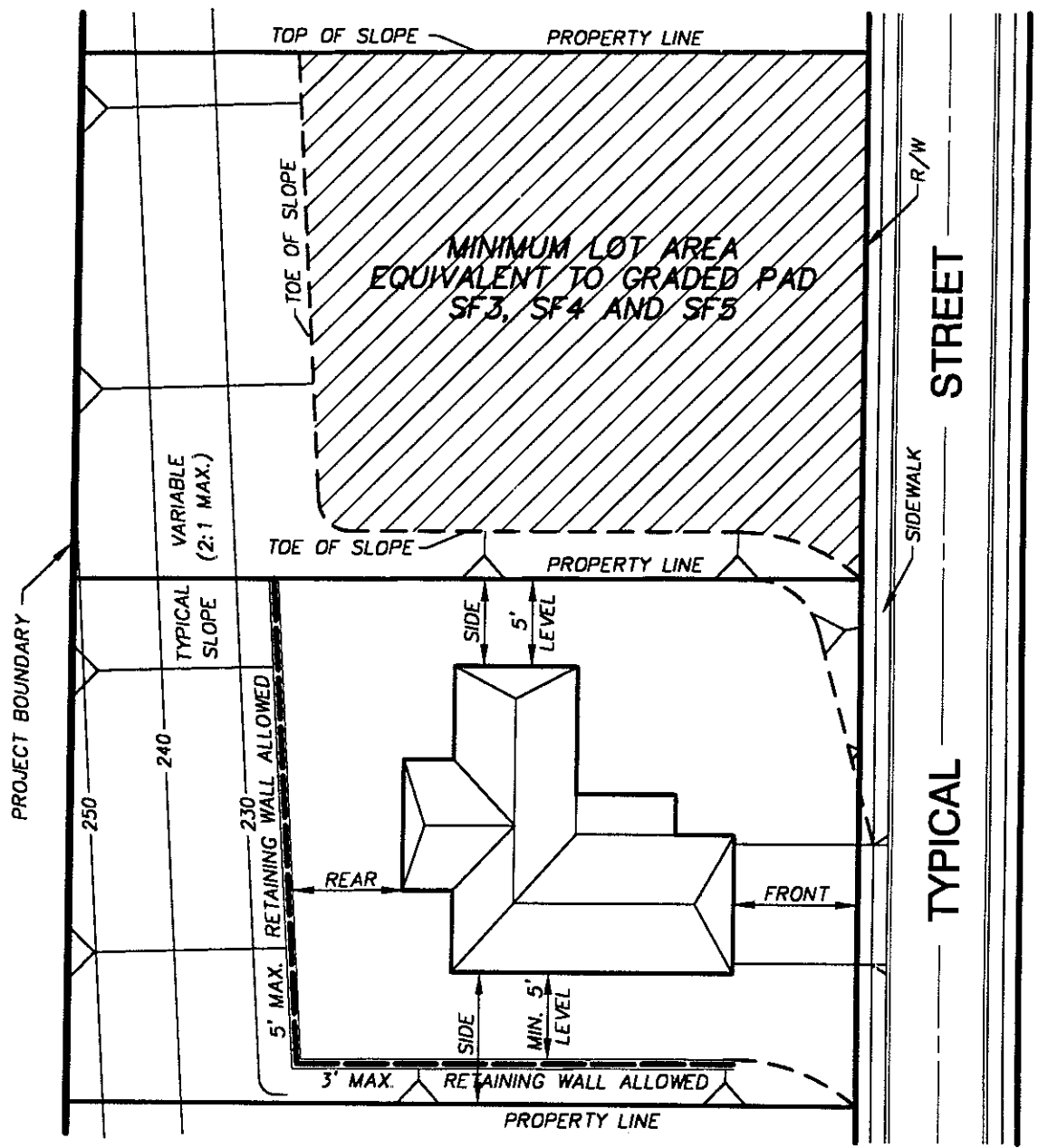
SCALE NONE

Vol 2 Page 15

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# MEASUREMENTS FOR MINIMUM LOT AREA AND SETBACKS FOR LOTS WITH INTERNAL SLOPES



NOTE: WITHIN THE REAR YARD WHERE A RETAINING WALL IS GREATER THAN 3' HIGH, A MINIMUM 4 FOOT HORIZONTAL SEPARATION IS REQUIRED TO A FREE STANDING FENCE OR WALL. (SEE ALSO TABLE 2-3, NOTE "H")

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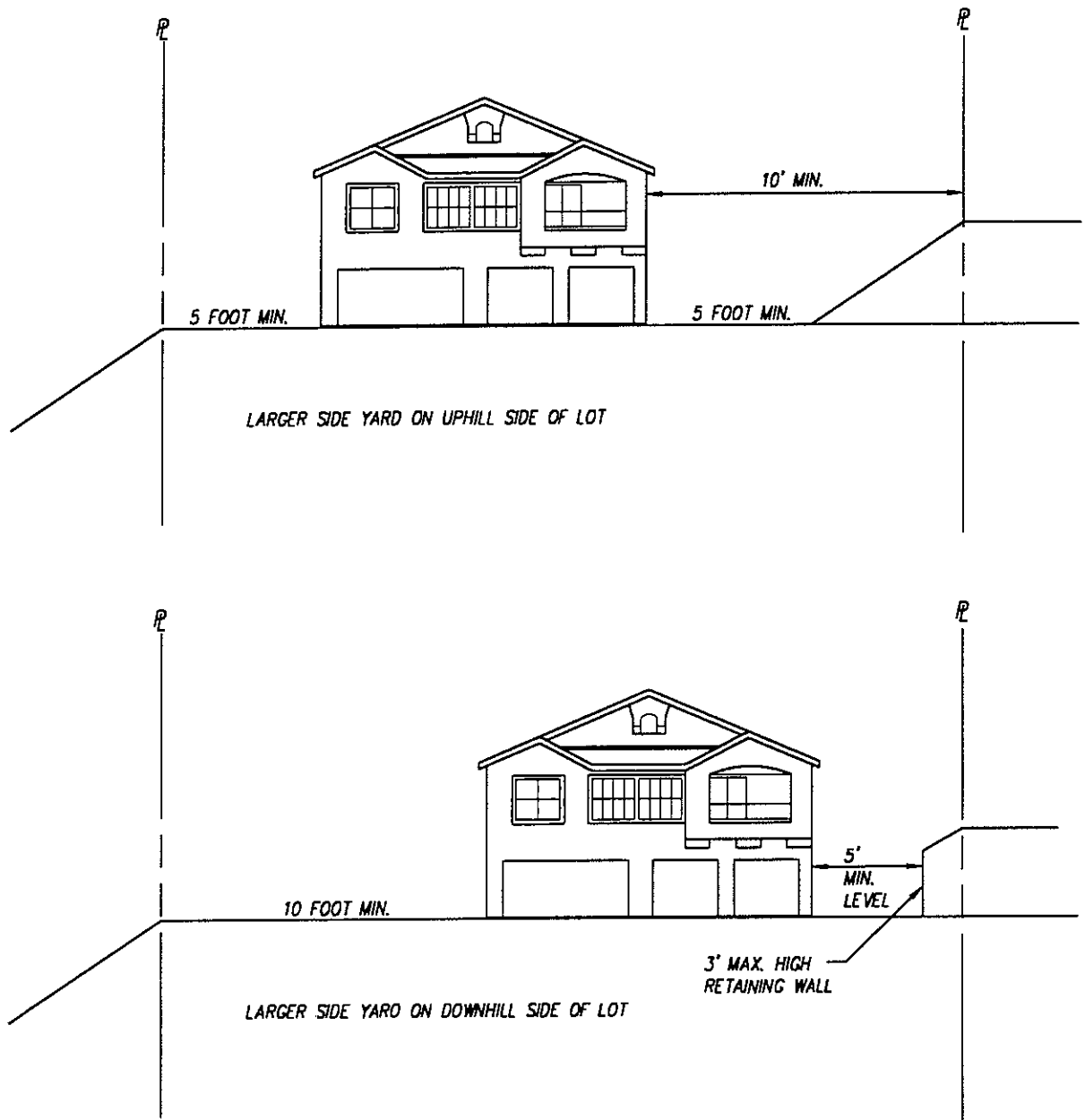
Figure 2-3

# San Miguel Ranch

NOT TO SCALE

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# MEASUREMENT OF SPLIT SIDE YARD REQUIREMENTS



## 2.4 Residential District Performance Standards

In the Residential Districts, the following performance standards shall apply;

- A. Required front and exterior side yards shall be landscaped and shall consist predominantly of trees, plant materials, ground cover and decorative rocks, except for necessary walks, drives and fences. All required landscaping shall be permanently maintained in a healthy and thriving condition, free from weeds, trash and debris. Landscaping requirements may be met by either installation by the builder or developer, or for single family developments by requiring through CC&R's that individual homeowners install their front yard landscaping within one year of occupancy.
- B. All exterior mechanical equipment i.e. air conditioners, antennas, ham radio antennas, solar panels, heating, cooling, ventilating equipment, lighting or electrical devices, and any other telecommunication equipment, shall be operated and located so that they do not disturb the peace, quiet, and comfort of neighboring residents and shall be screened, shielded and/or sound buffered from surrounding properties and streets. All equipment shall be installed and operated in accordance with all other applicable Ordinances. Heights of said equipment shall not exceed the required height of the zone in which they are located. Private, individual satellite dish antennas greater than 3 feet in diameter are subject to a Conditional Use Permit. Community or association operated satellite dish antennas may be allowed subject to a Conditional Use Permit.
- C. All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed except where required by utility provider. Pad-mounted transformers and/or meter box locations shall be included in the site plan with any appropriate screening treatment. Power lines and cables shall be installed underground.
- D. The City of Chula Vista's noise control ordinance provisions shall apply within San Miguel Ranch, as contained in CVMC Chapter 19.68.
- E. Buildings shall be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption requirements, including but not necessarily limited to considerations such as window placement, eave coverage, dual glazing, and insulation.

## **2.5 Residential District Accessory Structures**

Accessory buildings and structures, attached or detached, used either wholly or in part for living purposes, shall meet all of the requirements for location of the main structure as constructed or required by the District whichever is less restrictive, except as herein provided.

- A. Enclosed accessory buildings or structures that are attached to the main building shall not be allowed to encroach into the required rear yard setback.
- B. A detached accessory structure shall meet the setback requirements of the main building for the front and exterior side yard areas.
- C. A detached accessory structure may be located within the interior side yard or rear yard; provided, that such structure is located no closer than five feet to an interior side or rear lot line and is at least six feet from the main structure, and does not exceed one story in height.
- D. Open structures may be allowed to encroach into the rear yard setback subject to the approval of the Director of Planning and Building. The permitted design and type of open structures will be as determined by the Director of Planning and Building.
- E. Attached and detached accessory buildings and open structures are permitted pursuant to the site plan and architectural review requirements specified in Chapter X, Section 10.4 of these regulations.

## **2.6 Walls and Fences**

In any required front or side yard adjacent to a street, a wall, fence or hedge shall not exceed forty-two (42) inches in height, except as provided herein.

- A. A freestanding wall, fence or hedge not more than six (6) feet in height may be maintained along the side or rear lot line, provided that such wall, fence or hedge does not extend into a required front yard adjacent to a street, except for noise attenuation as required by the City and as provided herein.
- B. A wall, fence or hedge adjacent to a driveway or street providing vehicular access to an abutting lot or street shall not exceed forty-two (42) inches in height within the front or exterior side yard setback area of the lot. Corner cut-offs may be required to maintain a reduced height in special circumstances for safety and visibility.
- C. The combined height of a retaining wall and freestanding side yard fence or wall shall not exceed nine (9) feet in height.

- D. Fiberglass or bamboo sheeting or other similar temporary material shall not be permitted as a fencing material on street frontages.
- E. Where the elevation of a side or rear lot line exceeds the height of the roofline of a residence or primary structure, the fence shall be located so that the top of the fence shall not exceed the height of the roof of the residence or primary structure on the lot. Exceptions to this requirement can be authorized by the Director of Planning and Building Department.

## ***2.7 Residential District Signs***

No sign or outdoor advertising structure shall be permitted in any residential district except as provided in Chapter VIII.

# CHAPTER III

## COMMERCIAL DISTRICT

### **3.1 Purpose**

The Commercial Land Use District includes the Retail Commercial District of San Miguel Ranch. This area is provided to help serve the needs of the residents of San Miguel Ranch and the surrounding communities of Salt Creek Ranch and Salt Creek I. The Retail Commercial District is located at the intersection of East H Street and Mount Miguel Road. This intersection is in a central location within the residential communities, and provides a convenient and easily accessed hub for commercial and community uses.

### **3.2 Permitted and Conditional Uses**

The land use regulations for the Commercial Land Use District are shown on Table 2-4. The following uses shall be permitted where the symbol "P" appears. A Conditional Use Permit shall be required for uses where the symbol "C" appears. Uses where the symbol "A" appears shall be permitted, subject to an Administrative Review. Where the Symbol "N" appears, said use is not permitted.

**Table 2-4  
Permitted Use Matrix  
Commercial District**

LAND USE	CR DISTRICT
<b>Administrative and Professional Services</b>	
Business & Professional Offices	P
Financial Institutions	P
Medical, Dental & Health Services	A
Real Estate Sales Offices	P
<b>General Commercial Uses</b>	
Antique Shops (no outdoor storage)	P
Apparel Stores	P
Appliance stores and repair (no outdoor storage)	P
Art, music and photographic studios and supply stores	P
Arcades and electronic games (Subject to Section 19.58 CVMC)	C
Athletic and health clubs	A
Automobile and/or truck services, sales, rental agencies, car wash (Subject to III.5)	C
Bakeries-retail	P
Barber and beauty shops	P
Bicycle shops, non-motorized	P
Blueprint and photocopy services	P
Books, gifts and stationary stores	P
Candy stores and confectioners	P
Catering establishments	P
Cleaners	P
Cocktail lounge, bar or tavern, including related entertainment	C
Commercial recreation facilities not otherwise listed	C
Equipment rental (enclosed building)	P
Fast food restaurants with drive-in or drive-through (Subject to Section 19.58 CVMC)	C
Feed and tack stores (no outside storage): (Subject to Section 19.58 CVMC)	P
Florists' shops	P
Food stores, markets, drug stores	P
Furniture stores	P
<p><b>Key:</b>  P - Permitted Use  A - Administrative Review and/or Zoning Administrator Permit  C - Conditional Use Permit Required  N - Not Permitted (Prohibited Use)</p>	

**Table 2-4  
Permitted Use Matrix  
Commercial District**

LAND USE	CR DISTRICT
Gasoline service stations (Subject to Section 19.58 CVMC)	C
Hardware stores	P
Hobby shops	P
Hotels and motels (Subject to Section 19.58 CVMC)	C
Janitorial services/supplies	P
Jewelry stores	P
Junior department, department stores, discount and membership department stores	A
Kiosks, including photo sales, located in parking lot	A
Laundry (coin-op)	P
Liquor stores	C
Mortuaries	N
Motorcycle sales and services including motorized bicycle (Subject to III.5)	A
Newspaper and magazine stores	P
Nurseries and garden supply stores in enclosed area	P
Office supplies/stationary stores	P
Parking facilities (commercial) (Subject to Section 19.58 CVMC)	C
Pharmacies	P
Printing shops	P
Recycling drop-off bins	A
Restaurants with entertainment, and serving alcoholic beverages	C
Restaurants with serving of beer/wine, but without a cocktail lounge, bar, entertainment or dancing	A
Restaurants with no alcoholic beverage service	A
Coffee shops, delicatessens	P
Retail stores and shops	P
Sign painting shops (enclosed building)	P
Snack bars and refreshment stands contained within a building	P
Stamp and coin shops	P
Swimming pool supplies	P
<p><b>Key:</b>  P - Permitted Use  A - Administrative Review and/or Zoning Administrator Permit  C - Conditional Use Permit Required  N - Not Permitted (Prohibited Use)</p>	



**Table 2-4  
Permitted Use Matrix  
Commercial District**

LAND USE	CR DISTRICT
Television, stereo and radio stores including sales and repair	P
Temporary uses as prescribed in Section V.1	P
Theaters	C
Tire sales and service	C
Travel agencies	P
Veterinary offices and animal hospitals	C
Video rental stores	A
<b>Residential Uses</b>	
Mixed Use Residential (units over commercial or attached to storefront use)	C
<b>Public and Semi-Public Uses</b>	
Community Purpose Facilities which serve the following types of uses: boy or girl scouts, social and human services, services for the homeless, services for military personnel during holidays, senior care and recreation, worship, spiritual growth and development, and teaching of traditional family values, ancillary daycare facilities or ancillary private schools.	C
Churches, convents, monasteries and other religious places of worship CVMC.	C
Day nurseries, daycare schools and nursery schools (for profit).	A
Day nurseries, daycare schools and nursery schools (non-profit).	A
Educational institutions	C
Essential public services, including but not limited to: schools, libraries, museums, parks, public works facilities, post offices, and other civic uses.	C
Group care facilities and residential retirement hotels	N
Public safety facilities such as police or fire stations.	C
Public utility and public service sub-stations, reservoirs, pumping plants, telecommunications facilities, and similar installations.	C
<p><b>Key:</b>  P - Permitted Use  A - Administrative Review and/or Zoning Administrator Permit  C - Conditional Use Permit Required  N - Not Permitted (Prohibited Use)</p>	

**Table 2-4  
Permitted Use Matrix  
Commercial District**

LAND USE	CR DISTRICT
Recreation facilities, including but not limited to: country clubs, tennis and swim clubs, golf courses, racquetball and handball courts. Sites for such facilities, which are 2 acres or less in size, shall be subject to Administrative Review only.	C
Recreational courts, including but not limited to: tennis, basketball and similar uses.	C
<b>Accessory Uses and Buildings</b>	
Accessory uses and accessory buildings customarily appurtenant to a permitted use, subject to the provisions of Section 19.58.020 of the CVMC.	A
<p><b>Key:</b>  P - Permitted Use  A - Administrative Review and/or Zoning Administrator Permit  C - Conditional Use Permit Required  N - Not Permitted (Prohibited Use)</p>	

### **3.3 Commercial District Development and Site Planning Standards**

The following Property Development Standards shall apply to all land and buildings, other than accessory buildings, permitted in the Commercial Land Use District. The Commercial Land Use District is shown on Figure 2-1, and the Development Standards for the District are on Table 2-5. The use of the symbol "SP" indicates that the standard is established by the approval of a Precise Plan for site development.

### **3.4 Property Development Standards**

The property development standards that shall apply to all land and buildings permitted in the Commercial District shall be those indicated on an approved site plan submitted pursuant to Section 19.14.420 through Section 19.14.480 inclusive in Title 19 of the Chula Vista Municipal Code.

### **3.5 Performance Standards**

- A. Required front and exterior side yards shall be landscaped. Said landscaping shall consist predominantly of plant materials except for necessary walks and drives. All planting and irrigation shall be in accordance with the City's Landscape Manual. All required landscaping shall be permanently maintained in a healthy and thriving condition, free from weeds, trash and debris.
- B. The noise level emanating from any commercial use or operation shall not exceed the standards established in the Chula Vista Municipal Code.
- C. All ground mounted mechanical equipment, including heating and air conditioning units and trash receptacle areas, shall be completely screened from public view and surrounding properties by use of a wall or fence, or shall be enclosed within a building. No material or equipment so screened shall have a height greater than that of the enclosing wall, fence or building. Structural and design plans for any screening required under the provisions of this section shall be approved by the Director of Planning and Building.
- D. All roof appurtenances including, but not limited to, air conditioning units and mechanical equipment shall be shielded and architecturally screened from view from onsite parking areas, adjacent public streets and residential uses within the Commercial District.
- E. Reciprocal ingress and egress, circulation and parking arrangement shall be required to facilitate the ease of vehicular and pedestrian movement between adjoining properties.
- F. All light sources shall be shielded in such a manner that the light is directed away from streets or adjoining properties. Illuminators should be integrated

within the architecture of the building. The intensity of light at the boundary of a Commercial District shall not exceed seventy-five (75) foot lamberts from a source of reflected light.

- G. All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed to public view except where required by utility provider. Pad mounted transformers and/or meter box locations shall be included in the site plan with an appropriate screening treatment such as berms, walls and/or landscaping.
- H. Except where otherwise approved on a site plan, outdoor storage and/or sales areas shall be entirely enclosed by solid walls not less than six (6) feet in height to adequately screen outdoor storage areas. Stored materials shall not be visible above the required walls. Outdoor storage shall include a landscape buffer a minimum of three (3) feet in width. Additional wall height or semi-enclosed roofing may be required where the visibility, scale or intensity of use dictates additional screening, as determined by the Director of Planning and Building during administrative review.
- I. There shall be no emission on any site, for more than one minute in any hour, of air contaminants which, at the emission point or within a reasonable distance of the emission point, are a dark or darker in shade as that designated as No. 1 on the Ringelman Chart as published by the United States Bureau of Mines Information Circular 7718.
- J. No use shall be permitted which creates odor in such quantities as to be readily detectable beyond the boundaries of the site.
- K. Buildings should be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption, including but not necessarily limited to the following conservation measures.
- Cogeneration
  - South facing windows
  - Eave coverage for windows
  - Earth berming against exterior walls
  - Deciduous shade trees on southerly or westerly orientations

<b>Table 2-5 Development Standards Commercial Districts <sup>(a)</sup></b>	
Min. Lot Area	SP
Min. Lot Width	SP
Min Lot Depth	SP
<b>Minimum Building Setbacks</b>	
Front	15
Side (each)	10
Public Street	15
Rear	10
Adjacent to Residential Lot	15
Accessory Structures	10
<b>Minimum Parking Area Setbacks</b>	
Public Street	10
Adjacent Parcel Property Line	10 <sup>b</sup>
<b>Minimum Signage Setbacks</b>	
Public Street	5'
Adjacent Parcel Property Line	10'
Minimum Distance Between Structures	15'
Maximum Building Height	35'
Off-Street Parking Required	SP
Minimum Landscaping Required	15%

Notes:

- a. Any of these Commercial District Development Standards may be modified through site plan review.
- b. Parking areas for nonresidential uses adjoining residential uses or vacant land which may be developed with residential uses per this plan, shall provide a landscaped buffer yard with a minimum 15-foot width between the parking area and the common property line bordering the existing or potential residential use. A solid masonry wall shall be provided along the property line, in addition to the landscaping, where existing or approved residential uses adjoin a proposed non-residential use provided that said wall does not preclude pedestrian access between the residential and commercial area.

# CHAPTER IV

## COMMUNITY PURPOSE FACILITY DISTRICT

### **4.1 Purpose**

The Community Purpose Facility Land Use District includes the Community Purpose Facility District of San Miguel Ranch. This area is provided to help serve the needs of the residents of San Miguel Ranch and the surrounding communities of Salt Creek Ranch and Salt Creek I. The primary Community Purpose Facility District is located at the intersection of East H Street and Mount Miguel Road. This intersection is in a central location within the residential communities, and provides a convenient and easily accessed hub for community uses. All of the project's required 5.76 net acres of community purpose facilities cannot be provided at this primary site due to physical and topographic constraints. That portion of the acreage which cannot be provided there, will be provided at a secondary site which will be accommodated through expansion of net usable acreage at the Community Park site. This expansion would accommodate a multi-purpose community building for CPF uses, along with the appropriate parking.

### **4.2 Permitted and Conditional Uses**

The land use regulations for the Community Purpose Facility Land Use District are shown on Table 2-6. These regulations are established pursuant to Sections 19.48.020 through 19.48.025 of the CVMC. All uses shall require a Conditional Use Permit, indicated by the symbol "C". Hours of operation for any use shall be established in conjunction with review of the Conditional Use Permit, and shall be based on the type of use and/or activities proposed.

### **4.3 Development and Site Planning Standards**

The following Property Development Standards shall apply to all land and buildings, other than accessory buildings, permitted in the Community Purpose Facility Land Use District. The Community Purpose Facility Land Use District is shown on Figure 2-1, and the Development Standards for the District are on Table 2-7. The use of the symbol "SP" indicates that the standard is established by the approval of a Precise Plan for site development.

The property development standards that shall apply to all land and buildings permitted in the Community Purpose Facility District shall be those indicated on an approved site plan submitted pursuant to Section 19.14.420 through Section 19.14.480 inclusive in Title 19 of the Chula Vista Municipal Code.

<b>Table 2-6 Permitted Use Matrix Community Purpose Facility District</b>	
<b>LAND USE</b>	<b>CPF DISTRICT</b>
Boy Scouts, Girl Scouts, and other similar organizations	C
Social and human service activities, such as Alcoholics Anonymous	C
Services for homeless	C
Services for military personnel during the holidays	C
Senior care and recreation	C
Worship, spiritual growth and development, and teaching of traditional family values	C
Day care facilities that are ancillary to any of the above	C
Private schools that are ancillary to any of the above	C
Interim uses, subject to the findings outlined in Section 19.48.025 (E) of the CVMC	C
Recreational facilities, such as ball fields, for non-profit organizations serving the local community, subject to the requirements outlined in Section 19.48.004(B)(6)(d) of the CVMC	C
<b>Key: C - Conditional Use Permit Required</b>	

#### 4.4 Performance Standards

- A. Required front and exterior side yards shall be landscaped. Said landscaping shall consist predominantly of plant materials except for necessary walks and drives. All planting and irrigation shall be in accordance with the City's Landscape Manual. All required landscaping shall be permanently maintained in a healthy and thriving condition, free from weeds, trash and debris.
- B. The noise level emanating from any use or operation shall not exceed the standards established in Chapter 19.68 of the Chula Vista Municipal Code.
- C. All ground mounted mechanical equipment, including heating and air conditioning units and trash receptacle areas, shall be completely screened from public view and surrounding properties by use of a wall or fence, or shall be enclosed within a building. No material or equipment so screened shall have a height greater than that of the enclosing wall, fence or building. Structural and design plans for any screening required under the provisions of this section shall be approved by the Director of Planning and Building.
- D. All roof appurtenances including, but not limited to, air conditioning units and mechanical equipment shall be shielded and architecturally screened from view from onsite parking areas, adjacent public streets and residential uses.

- E. Reciprocal ingress and egress, circulation and parking arrangement shall be required to facilitate the ease of vehicular movement between adjoining properties or uses.
- F. All light sources shall be shielded in such a manner that the light is directed away from streets or adjoining properties. Illuminators should be integrated within the architecture of the building. The intensity of light at the boundary of a Community Purpose Facility District shall not exceed seventy-five (75) foot lamberts from a source of reflected light.
- G. All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed to public view except where required by utility provider. Pad mounted transformers and/or meter box locations shall be included in the site plan with an appropriate screening treatment such as berms, walls and/or landscaping.
- H. Except where otherwise approved on a site plan, outdoor storage areas shall be entirely enclosed by solid walls not less than eight (8) feet in height to adequately screen outdoor storage areas. Stored materials shall not be visible above the required walls.
- I. There shall be no emission on any site, for more than one minute in any hour, of air contaminants which, at the emission point or within a reasonable distance of the emission point, are a dark or darker in shade as that designated as No. 1 on the Ringelman Chart as published by the United States Bureau of Mines Information Circular 7718.
- J. No use shall be permitted which creates odor in such quantities as to be readily detectable beyond the boundaries of the site.
- K. Buildings should be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption, including but not necessarily limited to the following conservation measures.
- Cogeneration
  - South facing windows
  - Eave coverage for windows
  - Earth berming against exterior walls
  - Deciduous shade trees on southerly or westerly orientations
- L. Criteria and standards for design and hours of operation shall be addressed during review of the Conditional Use Permit and the Site Plan.
- M. Required site acreage not provided at the primary CPF site "M" must be provided through expansion of the net, usable acres at the Community Park



site. The current net community park site is estimated at 15.66 acres, and the CPF related expansions would be beyond that acreage.

That expanded acreage will provide for the siting of a multi-purpose community building and associated parking, which can accommodate CPF uses. The building size and design shall be sufficient for such uses, and shall be incorporated into the facilities package and master plan for the community park site.

Min. Lot Area	SP
Min. Lot Width	SP
Min. Lot Depth	SP
<b>Minimum Building Setbacks</b>	
Front	15
Side (each)	10
Public Street	15
Rear	10
Adjacent to Residential Lot	N/A
Accessory Structures	10
<b>Minimum Parking Area Setbacks</b>	
Public Street	10
Adjacent Parcel Property Line	5
<b>Minimum Signage Setbacks</b>	
Public Street	5
Adjacent Parcel Property Line	5
Minimum Distance Between Structures	10
Maximum Building Height	35'
Off-Street Parking Required	SP
Minimum Landscaping Required	15%

- a. Any of these CPF District Development Standards may be modified through review of the CUP and Site Plan for specific uses, and should address specific characteristics of the use(s) proposed.

# CHAPTER V

## PARKS AND OPEN SPACE DISTRICTS

### 5.1 Purpose

The Parks and Open Space Districts are intended for recreational activities and natural open space with limited public uses. Only those additional uses, which are complementary to, and can exist in harmony with open spaces or park uses are permitted. There is no lot size limitation and it is intended that the open space districts may be applied to a portion of a lot, provided that the remainder of the lot meets the requirements for which it is zoned.

The Parks and Open Space Districts are included in the SPA Regulations to achieve the following purposes.

- Preserve open space for the conservation of natural resources.
- Maintain the natural character of the land.
- Provide for public/quasi-public and recreational uses.
- Conserve areas of community open space for the enjoyment of future generations.
- Provide for public use of land under limited development.
- Promote public health and safety.

### 5.2 Permitted and Conditional Uses

The land use regulations for the Parks and Open Space Districts are as follows.

#### ***Community Park (CP/CPF)***

The Community Park will be developed for active recreational facilities such as sports fields, courts, tot lots, play areas, restrooms, and parking lots as well as more passive recreational areas such as benches, pedestrian and equestrian trails and rest areas. The specific uses within the community park will be determined through a park planning process, and must be approved through the San Miguel Ranch Park Master Plan.

The Community Park site will also accommodate a portion of the project's required Community Purpose Facility (CPF) acreage through provision of additional net, usable acreage and a multi-purpose community meeting building which can be used for CPF type uses. The additional acreage will be above and beyond that associated with the principal community park functions, and the community building and related parking will be a required component of the San Miguel Ranch Park Master Plan.

#### ***Neighborhood Park (NP)***

The Neighborhood Park site will be developed with private recreational facilities, which may include sports courts, tot lot, play areas, swimming pool, restrooms,

parking lot, community activity rooms and other active and passive uses. The specific uses and design of the Neighborhood Park facility are required to be identified on a Site Plan, and are subject to administrative review and approval by the Director of Planning and Building.

***Open Space - Habitat Preserve (OS-PR)***

The habitat preserve areas within San Miguel Ranch are designated for protection of the Otay Tarplant. Uses within these areas are limited to those habitat management activities which may be allowed through agreement with the resource agencies, and public and private utilities within existing easements (i.e. SDG&E transmission facilities). Any proposed activities or uses within the OS-PR areas require administrative review by the Director of Planning and Building.

***Open Space - Trails and Recreation (OS-TR)***

The uses allowed within the Open Space - Trails and Recreation areas of San Miguel Ranch are limited to passive recreational uses such as pedestrian trails, equestrian trails, and rest areas within natural areas (OS2 through OS5, OS7, OS9) and limited recreational activities such as turf, tot lots and walkways in improved open space areas (OS-8). Public and private utilities are allowed subject to administrative review by the Director of Planning and Building.

**5.3 *Property Development Standards***

Each of the Parks and Open Space Districts is shown on Figure 2-1. The development standards for the Community Park District will be established pursuant to the San Miguel Ranch Community Park Master Plan.

Development standards for the Neighborhood Park District will be established by a Site Plan for the private Neighborhood Park.

Development within the Open Space Districts (OS-PR and OS-TR) is prohibited. The uses permitted within these open space districts are limited to public utilities uses and, in OS-TR, passive recreational activities which are not subject to development standards.

**5.4 *Site Planning***

All proposed development of uses or facilities within Parks and Open Space Districts will be reviewed on an individual basis to determine appropriate buffering and setbacks. The intensity of use proposed and the existing or planned uses in the vicinity shall be considered in evaluating any Open Space District improvements. Uses allowed pursuant to existing easement rights, such as maintenance of access roads and existing facilities, and development of additional energy facilities, are not subject to these review provisions. Landscaping, signage and any structures shall comply with the Design Guidelines of Volume 3.

# CHAPTER VI

## ELEMENTARY SCHOOL LAND USE DISTRICT

### **6.1 Purpose**

The Elementary School Land Use District is a special purpose designation provided for a future Elementary School to help serve the needs of the residents of San Miguel Ranch and the surrounding communities. This site is located on Proctor Valley Road.

### **6.2 Permitted Uses**

The only use permitted for the Elementary School site is as an educational institution. This site has not yet been approved for acquisition and use as an elementary school site by the School District. Should this site not be needed, it could revert to another use consistent with the surrounding development, subject to amendment of the SPA Plan.

### **6.3 Property Development Standards**

All development standards for the Elementary School shall be determined per the School District Site Plan approval process.

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# CHAPTER VII

## SPECIAL OR TEMPORARY USES AND CONDITIONS

### 7.1 *Purpose*

This Chapter provides additional regulation for special uses and conditions, which require review standards beyond those of the land use districts. Temporary uses, home occupations, and arcades are addressed. Where this Chapter prescribes a regulation which is more restrictive than that of the Land Use District, the provisions of this Section shall prevail.

### 7.2 *Temporary Uses*

Table 2-8 is a list of temporary uses and applicable restrictions. All temporary uses are subject to administrative review of the Director of Planning and Building.

All temporary uses shall be subject to the issuance of a Temporary Use Permit by the Director of Planning and Building (or Conditional Use Permit as noted in Table 2-8), and other necessary permits and licenses, including but not limited to: building permits, sign permits and solicitors or vending licenses. In the issuance of such a permit, the Director of Planning and Building shall indicate the permitted hours of operation and any other conditions, such as walls, fences or lighting, which are deemed necessary to reduce possible detrimental effects to surrounding developments and to protect the public health, safety and welfare. Prior to the issuance of a permit for a temporary use, a cash deposit may be required to be deposited by the City. The City shall use this cash deposit to defray the costs of property cleanup, in the event the permittee fails to do the same.

Upon written application, the Director of Planning and Building may extend the time within which temporary uses may be operated, or may modify the limitations under which such uses may be conducted if the Director of Planning and Building determines that such extension or modification is in accord with the purposes of these regulations.

Each site occupied by a temporary use shall be left free of debris, litter or any other evidence of the temporary use upon completion or removal of the use, and shall thereafter be used only in accord with the provisions of these regulations.

An application for temporary use shall be accompanied by a fee established by the City's Master Fee Schedule to cover the cost of processing the application prescribed in this Section. The approving authority may waive this fee for charitable groups that do not need any public services.

**Table 2-8  
Temporary Uses \***

TEMPORARY USE	RESTRICTIONS/CONDITIONS
Circuses, rodeos, parades or similar outdoor entertainment or enterprises	Subject to not more than five (5) days or portion in any calendar year. Request exceeding these time limitations will require the submittal and approval of a Conditional Use Permit.
Christmas tree sales, Halloween pumpkin sales and other holiday sales	Subject to not more than forty (40) days of site occupation and operation in any calendar year.
Subdivision sales offices, sales information centers, sale pavilions, and model home complexes located within the subdivision	Subject to the following minimum requirements: <ul style="list-style-type: none"> <li>• Offices shall be no closer than one (1) vacant lot to an existing dwelling unit not part of the subdivision. Trailers may be used for no more than ninety (90) calendar days or until such time as the subdivision sales offices have been completed, whichever is less.</li> <li>• Trailers used as sales offices for lot sales without model homes may be used for a period greater than ninety (90) days, subject to site plan and architectural review approval and the maximum use period listed herein.</li> <li>• A paved parking lot shall provide sufficient parking spaces to accommodate said use as determined in accordance with Section 19.58.320 of the CVMC</li> <li>• Faithful performance bonding in an amount appropriate to guarantee removal and/or conversion of the sales office and attendant facilities shall be required.</li> <li>• Other conditions that the Director of Planning deems necessary to ensure that the sales office will not constitute a nuisance or be objectionable to the residential uses in the neighborhood.</li> </ul>
Outdoor art and craft shows and exhibits	Subject to not more than three (3) calendar days of operation or exhibition in any sixty (60) calendar day period.
Contractors' offices and storage yards	On the site of an active construction project.
Mobile home residences	For security purposes on the site of an active construction project.
Seasonal retail sales of agricultural products (fruit and vegetable stands)	For periods of less than ninety (90) days, if said products are raised on the premises.
Temporary use of properly-designed mobile trailer units for classrooms, offices, banks, etc.	For periods not to exceed ninety (90) days subject to Administrative Review. Requests for such uses of more than ninety days in duration shall require the approval of a Conditional Use Permit by the Planning Commission. Such units shall meet all necessary requirements of building, fire and health codes.
Agricultural and animal husbandry activity or project (4-H, FFA or similar) conducted	For educational purposes or school credits, a permit may be granted in any district when the Director of Planning and Building determines that such use will not cause a public nuisance relative to sanitation and health conditions.
Charitable or school sponsored drop-off bins for recycling of cans, newspapers, or similar items, or for drop-off of clothes and small items.	Bins shall be located in the parking lots of businesses or other public or semi-public property on a temporary basis when written permission is granted by the property owner or business owner. Said bins shall be kept in a neat and orderly manner. Collection of bottles, cans, and newspapers shall also be regulated by the "Bottle Ordinance".
Additional uses determined to be similar to the foregoing in the manner prescribed by these regulations.	

\* All temporary uses are subject to administrative review of the Director of Planning and Building.

### 7.3 Home Occupations

Home occupations may be permitted only when in compliance with the conditions listed herein. The Director of Planning and Building must issue a permit prior to operation of such use. The fee shall be in accordance with the City's Master Fee Schedule.

- A. There shall be no stock in trade or exterior storage of materials in the conduct of a home occupation.
- B. A home occupation shall be conducted entirely within a dwelling; if in an attached or a detached garage, it shall not impede the use of said garage for vehicle storage.
- C. Electrical or mechanical equipment, which creates visible or audible interference in radio or television receivers, or causes fluctuations in line voltage outside the dwelling unit, shall be prohibited.
- D. No one other than the residents of the dwelling unit may be engaged in the conduct of the home occupation.
- E. There shall be no sale of goods on the premises.
- F. The establishment and conduct of a home occupation shall not change the principal character or use of the dwelling unit involved.
- G. There shall be no signs other than those permitted by these PC District Regulations.
- H. The required residential off-street parking shall be maintained.
- I. A home occupation shall not create vehicular or pedestrian traffic in excess of that which is normal for the land use district in which it is located.
- J. No vehicles or trailers (including pick-up trucks and vans) or construction and other equipment, except those normally incidental to residential use, shall be kept on the site.



## 7.4 Arcades

In order to minimize adverse effects that an arcade or electronic games may have on the neighborhood or area in which they are located, the following regulations are established. Arcades may be permitted only in the Retail Commercial land use district subject to a Conditional Use Permit and to the conditions listed herein.

- A. All such facilities shall provide parking with ingress and egress designed to minimize traffic congestion; shall be not less than twenty feet away from any adjacent residential zone; and shall show that adequate controls or measures will be taken to prevent offensive noise and vibration. Should the Municipal Code be amended to provide additional regulation of these uses, such amendments shall apply to arcade or similar uses within San Miguel Ranch.
- B. The operation of four or fewer machines shall be permitted, provided their operation is ancillary to the use of the building and said use does not materially alter the principal use of such a building. The operation of four or fewer machines, where they are the principal use, may be approved by the Director of Planning and Building where, in his judgment, the location does not constitute a traffic or safety hazard to the public or abrogate the intent of the regulations contained in this section.

## 7.5 Recreational Courts

Construction of recreation courts, including necessary fencing and lighting, may be permitted in the SFE, SF1, SF2, and SF3 Districts, and in the OS-8 Planning Area, subject to administrative review and a finding that adjacent properties will not be unduly affected. They may also be permitted in SF4, SF5, SFA MF, NP, and CPF Districts subject to approval of a Site Plan. Recreation courts shall meet the following minimum standards.

- A. A maximum 20-foot high fence (measured from the finished grade of the court) shall be allowed. Fences shall include a screening material which screens the court activity from off-site view and which improves the appearance of the fence.
- B. Setbacks for the court shall be:
  - Side yard: 10 feet
  - Rear yard: 10 feet

- C. A maximum of eight (8) lights are permitted, with a height not to exceed 22 feet. All lights and light fixtures shall be certified by a qualified lighting engineer to:
  - 1. Be designed, constructed, mounted and maintained such that, the light source is cut off when viewed from any point five (5) feet above the ground measured at the lot line.
  - 2. Be designed, constructed, mounted and maintained such that the maximum illumination intensity measured at the wall of any residential building on abutting property shall not exceed ½ foot candle above ambient levels.
  - 3. Be used between 7:00 a.m. and 10:00 p.m.
- D. The surface area of any recreational court shall be designed, painted, colored and/or textured to reduce the reflection from any light incident thereon.
- E. Landscaping shall be installed as required between the fence and the property line.

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## CHAPTER VIII

# COMPREHENSIVE SIGN REGULATIONS

### 8.1 Purpose

It is the purpose of these provisions to establish a comprehensive system for the regulation of on-site and off-site signs in San Miguel Ranch to make the San Miguel Ranch Planned Community as attractive to residents and visitors while maintaining economic integrity through an attractive signing program.

Signs provide a way to identify businesses within the community, and is an important design element of the physical environment. Regulations that are consistent with the Community's goals and objectives are needed to ensure that the character and image San Miguel Ranch is striving for can be achieved.

Specifically, these sign regulations are intended to:

- A. Protect the general health, safety and welfare of the community by reducing possible traffic and safety hazards through good signage.
- B. Direct people to various activities and uses, providing for maximum public convenience.
- C. Provide a reasonable system of regulations that ensure a high quality visual environment for the development.
- D. Encourage signs which are well-designed and pleasing in appearance. Signs should provide incentive and latitude for variety, good design relationship to the use they identify and provide adequate spacing between signs and buildings.
- E. Encourage a desirable visual character which has a minimum of clutter, and is compatible with the desired semi-rural character of the residential areas in San Miguel Ranch.
- F. Enhance the economic value of the community and each development area, through the regulation of such elements as size, number, location, design and illumination of signs.
- G. Encourage signs which are well located, and which take into account the function and use of adjacent areas.

- H. Encourage a signage program with a consistent theme, which visually complements and blends with the San Miguel Ranch landscaping program.
- I. Discourage proliferation of illegal signage which can be a visual blight to neighborhoods.

## **8.2 Permit Requirements and Review Procedures**

- A. No person except a public officer or employee in performance of a public duty shall post, paint, erect, place or otherwise fasten any sign, pennant or notice of any kind, visible from a public street except as provided herein. To ensure compliance with this section, a sign permit shall be required for any sign, pursuant to Sections 19.60.020 and 19.60.030 of the Municipal Code, except as provided in Section 8.2.1. Zoning Administrator approval is required for all Sign Permits.
- B. Any sign, monument, tablet, plaque or markers which are over 42 inches high and located within a front yard or exterior side yard setback area as defined in the PC District regulations, must have approval of the Zoning Administrator and City Engineer to ensure that architectural, pedestrian and vehicle access and safety issues are addressed.
- C. A building permit is required for every sign, including those exempt from obtaining a sign permit. Building permits for signs must comply with all SPA signage regulations.
- D. Design guidelines for signage within San Miguel Ranch are included in Volume 3, Section 3.12 of this SPA Plan and are to be used in conjunction with these sign regulations.
- E. A Planned Signage Program shall be provided for the commercial, community purpose facility and multi-family areas of San Miguel Ranch in accordance with Section 8.3.2 of these PC District Regulations.

### **8.2.1 Sign Permit Exceptions**

The following signs shall be exempt from the sign permit requirements, however an electrical and/or building permit may be required pursuant to the CVMC.

- A. Real Estate Sign for Residential Sales: One (1) sign per street frontage not exceeding four (4) square feet in area and four and one half (4-1/2) feet in height provided that it is unlit and is removed within 15 days after the close of escrow. Lots shall be permitted one sign only. Signs placed on the rear street frontage are prohibited. Freestanding signs shall maintain a ten-foot setback from all property lines. No more than five (5) Open House signs not exceeding four (4) square feet in area and five (5) feet in height are permitted

for directing prospective buyers to property for sale, located a minimum of three (3) feet from the sidewalk or ten feet from the curb or edge of pavement where no sidewalk exists.

B. Political signs: Political signs having to do with any issue, ballot measure, political statements and expressions, or candidate in any Municipal, County, State or Federal election shall be permitted, subject to the following provisions and any other applicable provisions within this Section.

1. Any person, party or group posting signs in the City shall abide by the provisions herein set forth.
2. All political signs shall be placed, erected, constructed, painted or assembled, no earlier than thirty (30) calendar days prior to the election and shall be removed no later than ten (10) calendar days following the date of the election.
3. A political sign shall not exceed thirty-two (32) square feet in total area for one side; double -faced signs shall not exceed thirty-two (32) square feet per side. No signs shall be placed in a manner that would obstruct visibility of or impede pedestrian or vehicular traffic, or to endanger the health, safety, or welfare of the community.
4. All political signs shall not exceed an overall height of eight (8) feet from the finished grade immediately around the sign.
5. No political signs shall be lighted either directly or indirectly unless said sign is erected, painted or constructed on an authorized structures already providing illumination.
6. No political sign shall be placed or affixed to a traffic signal, street light, tree, fence, utility pole or existing sign, nor shall be posted on any public property or in the public right-of-way, if in the opinion of the Director of Planning and Building, said sign impedes or renders dangerous public access to any public improvement, including but not limited to utility poles and fire hydrants; or obstructs the vision of any sign designed to regulate, control or assist public or private transportation or obstructs the vision of any user of a public right-of-way.
7. No political sign shall be posted in violation of any provisions of this chapter. Further, the Director of Planning or his designee shall have the right to remove all signs placed contrary to the provisions of this section. Any political sign placed on private property without the

consent of said private property owner may be removed by said owner or representative of said owner.

- C. Temporary construction signs: A maximum of two (2) directory signs shall be permitted on the construction site for use by all contractors (may include financial institutions, real estate agents, subcontractors, etc.) not exceeding thirty-two (32) square feet each, unless legally required by government contracts to be larger. No sign shall exceed eight (8) feet in overall height and shall be located no closer than ten (10) feet to any property line. The property owner shall remove such sign upon the granting of occupancy.
- D. Residential identification signs: Permanent residential identification signs designating the name of the residential area may be located at an entrance to the residential area, subject to Zoning Administrator approval and provided that a homeowners' association or maintenance district is formed to ensure the maintenance of said signs. The copy area of the sign structure shall not exceed 15 square feet and be architecturally harmonious with the adjoining residential area (CVMC Section 19.60.390).
- E. Interior signs: Signs within a structure or building when not visible or readable, nor intended to be read from off-site or from outside of the structure or building.
- F. Memorial tablets, plaques or directional signs: Signs for community historical resources, installed by a City-recognized Historical Society or civic organization.
- G. Convenience signs and secondary directional signs: Signs used to provide information that relate to public convenience, safety or would assist motorists or pedestrians in reaching their destination on a site such as "entrance," "exit," "office," or directional arrows, and not to exceed four (4) square feet in area.
- H. Residential building identification signs: Signs used to identify individual residences and not exceeding four (4) square feet in area.
- I. Name plates: One plate per parcel to exceed four (4) square feet in area for single family residential uses and agricultural uses.
- J. Official and legal notices: Notices issued by any court, public body, person, or officer or in furtherance of any nonjudicial process approved by State or local law.

- K. Signs providing direction, warning or information: Signs or structures required or authorized by law or Federal, State, County, or City authority.
- L. A single official flag: The flag of the United States of America and/or two (2) flags of either the State of California, or other states of the United States, counties, municipalities or official flags for nations, and flags of internationally or nationally recognized organizations or the company flag. Flags shall be a maximum of 5 feet by 8 feet unless otherwise specifically approved on a site plan.
- M. Signs of public utility companies: Signs indicating danger or which serve as an aid to public safety, or which show locations or underground facilities or public telephones.
- N. Safety signs: Signs on construction sites.
- O. Warning signs: "No Trespassing," "No Dumping," and similar warning signs not exceeding four (4) square feet.
- P. Signs on public transportation vehicles: Signs regulated by a political subdivision, including, but not limited to buses and taxicabs.
- Q. Signs on license/commercial vehicles: Provided such vehicles are not used or intended for use as portable signs or as may be prohibited in the following Section.
- R. A change of copy: Copy conforming to an approved Comprehensive Sign Program. All other changes of copy shall comply with this Section.
- S. Agricultural signs: Either wall or freestanding types, non-illuminated and not exceeding four (4) square feet for lots two (2) acres or less and sixteen (16) square feet for lots greater than two (2) acres, identifying only the agricultural products grown on the premises. The number of such signs shall be one (1) per street frontage or a maximum of two (2), with all signs to be located below the roofline and freestanding signs to be no higher than eight (8) feet.
- T. Permanent window signage: Signs not exceeding twelve (12) square feet per business frontage and limited to the name of the business, service, or use, hours of operation, address and emergency information, except exposed neon tubing signs advertising products for sale on the premises, are permitted as permanent signs.
- U. Temporary advertising signage: Signs painted on the window or constructed of paper, cloth, or similar expendable material affixed on the window, wall or building surface, provided that all of the following conditions are met:



1. The total area of such signs shall not exceed twenty-five (25) percent of the window area; however, in all cases, twelve (12) square feet per business frontage is permitted.
  2. Such signs shall be affixed to the surface for no more than thirty (30) continuous calendar days but for not more than sixty (60) days each calendar year, to promote a particular event or sale of product or merchandise.
- V. Future tenant identification sign: Future tenant identification signs may be placed on vacant or developing property to advertise the future use of an approved project on the property and where information may be obtained. Such signs shall be limited to one (1) per fronting street and to a maximum of ninety-six (96) square feet in area and twelve (12) feet in overall height each. Further, such signs shall be placed no closer than ten (10) feet to any property line. Any such sign shall be removed upon finalization of building permits. Where a project has in excess of 600 lineal feet of frontage, one additional sign for each 600 lineal feet is allowed.

### **8.2.2 Prohibited Signs and Lighting**

All signs and lighting not expressly permitted are prohibited in all zones, including, but not limited to the following:

- A. Roof signs.
- B. Flashing lights or signs.
- C. Animated signs or lights that convey the illusion of motion.
- D. Revolving or rotating signs.
- E. Vehicle signs (when parked or stored on property to identify a business or advertise a product).
- F. Portable signs (except where permitted in this Section).
- G. Off-site signs (except temporary subdivision or real estate signs).
- H. Signs within the public right-of-way (except those required by a governmental agency). No sign shall be placed, erected or constructed on a utility pole, traffic device, traffic sign, warning signs, or so as to impeded access to any public improvement, or to obstruct the vision of any such signs.

- I. Signs located on public property except as may be permitted by Section 8.2.1 or those required by a governmental agency.
- J. Signs within the public right-of-way prohibited by the Streets and Highway Code (Sec. 101 et. seq. and Sec. 1460 et. seq.), the Vehicle Code (Sec. 21400 et. seq.) and the Public Utilities Code (Sec. 7538 et. seq.).
- K. Signs blocking doors or fire escapes.
- L. External light bulb strings and exposed neon tubing outside of buildings (except for temporary uses such as Christmas tree lots, carnivals and similar events having prior approval of the City).
- M. Inflatable advertising devices of a temporary nature, including hot air balloons (except for special events as provided for in this Section).
- N. Advertising structures including billboards (except as otherwise permitted in this Section).
- O. Statuary (statues or sculptures) advertising products or logos of the business located outside of the structure that houses the business.
- P. Flags, pennants and banners as defined in CVMC Section 19.60.180 (except those approved as temporary special event or promotional signs).
- Q. Freestanding signs mounted on poles exceeding 10 feet in total height.
- R. The use of decals, stick-on or transfer letters, or tape on the walls or parapets of buildings, fences, walls and other structures.
- S. Signs, which purport to be, are in imitation of, or resemble official traffic warning devices or signs, that color, location or lighting may confuse or disorient vehicular or pedestrian traffic. This does not include traffic or directional signs installed on private property to control on-site traffic.

### **8.2.3 Signs Relating to Inoperative Activities**

Signs pertaining to activities or businesses which are no longer in operation, except for temporary closures for repairs, alteration or similar situations, shall be removed from the premises or the sign copy shall be removed within thirty (30) days after the premises have been vacated. Any such sign not removed within the specified time shall constitute a nuisance and shall be subject to removal under the provisions of this Chapter and local ordinance.

### **8.2.4 Enforcement, Legal Procedures and Penalties**

Enforcement, legal procedures and penalties shall be in accordance with the enforcement procedures established by Chapter 19.06 of the Municipal Code. The City in accordance with local Ordinance may abate unauthorized illegal signs. The owner may recover said sign from the City upon payment to the City of stores sign any storage and/or removal charges incurred by the City. The minimum charge shall be no less than three dollars (\$3.00) per sign. All signs removed by the City may be destroyed thirty (30) calendar days following removal. If any sign, in the opinion of the Director of Planning, is an immediate threat to the public health and safety said sign shall be immediately and summarily removed with the cost of removal charged to the property owner in accordance with local ordinances.

### **8.2.5 Construction and Maintenance**

Every sign and all parts, portions and materials shall be manufactured, assembled and erected in compliance with all applicable State, Federal and City regulations and the Uniform Building Code.

Every sign and all parts, portions and materials shall be maintained and kept in proper repair and safe structural condition at all times. The display surface of all signs shall be kept clean, neatly painted and free from rust and corrosion. Any cracked or broken surfaces, and malfunctioning or damaged portions of a sign shall be repaired or replaced. Noncompliance with such a request shall constitute a nuisance and will be abated within 30 calendar days following notification of the business by the City. Any maintenance, except a change of copy, which does not involve structural changes, is permitted.

## **8.3 Sign Regulations**

Sign permits may be issued for signs included under this Section, provided the signs are in compliance with all other applicable laws and ordinances.

### **8.3.1 Signs Permitted in Any Land Use District**

The following signs may be permitted in any land use district, and are subject to the provisions listed.

- A. Convenience Signs: On-site signs no greater than four (4) square feet necessary for public convenience or safety may be approved by the Director of Planning or his designee. Signs containing information such as "entrance," "exit," "office," or directional arrows shall be designed to be viewed from an area adjacent to the site by pedestrians or motorists. Signs that convey advertising or products shall not be considered a convenience sign.

B. Public and Quasi-Public Signs: Churches, schools, community centers and any other public or institutional building, on any community purpose, institutional or residential zone, shall be allowed the following signs:

1. Churches are allowed one wall sign, per Section 8.3.2, and one bulletin board, announcement or monument sign. Any bulletin board or announcement signs not attached flat against the building shall maintain a ten-foot setback from all streets.
2. Other public and quasi-public uses are permitted one wall or monument sign, per Section 8.3.2, and a bulletin board or announcement sign. Any bulletin board or announcement sign not attached flat against the building shall maintain a ten-foot setback from the streets.
3. Churches and other public and quasi-public uses may request a permit allowing for temporary use of a sign announcing a special event. Either wall or freestanding signs of paper, cardboard, plastic or fabric are permitted; provided that the Zoning Administrator finds that the copy, color and design of the sign will not adversely affect the order, amenity, or residential enjoyment of the neighborhood in which it is located.
4. Special event signs shall be located on the premises of the institution or organization having the special event, and shall not exceed five feet in height, nor contain more than twenty-five square feet of sign area. Freestanding signs shall maintain a minimum ten-foot setback from any property line abutting a street right-of-way. Only one sign shall be allowed for each street frontage.
5. Upon application for a permit, the applicant shall submit a statement and diagram noting the nature of the special event, indicating the occasion, size, copy and colors of the proposed sign. A permit for a special event sign shall be issued to any one institution or organization in one calendar year subject to Section 19.60.290 of CVMC.

C. Special Event Signs: Special event signs may be approved for a limited period of time as a means of publicizing special events such as grand openings, Christmas tree lots, parades, rodeos and fairs that are to take place within the San Miguel Ranch Planned Community SPA.

1. Community Special Events such as a rodeo or community fair may be permitted the following signage:

- No more than one on-site and two (2) off-site signs up to thirty-two (32) square feet and eight (8) feet in height to publicize the event.
  - Temporary advertising signing consistent with the requirements set forth in Section 8.2.1(U).
  - All special event signs must be removed by the event permittee or sponsor within 24 hours after conclusion of the special event.
2. Commercial Special Events such as grand openings and, painted seasonal holiday window displays may be permitted the following signage:
- No more than one (1) freestanding special event sign, thirty-two (32) square feet or smaller, not to exceed eight (8) feet in height.
  - All other on-site special event signs can be wall and window signs, flags, banners and pennants not to exceed 20 square feet per sign. Inflatable advertising devices of a temporary nature may be permitted. In no case shall any signage, flag, pennant, inflatable device, or banner be placed above the roofline, or in the public right-of-way.
  - Special event signs cannot be installed before the opening of the business and all special event signs must be removed by the event permittee or sponsor within 24 hours after conclusion of the special event.

D. On-Site Subdivision Signs: Directional signage to subdivision development projects which is located on-site is to comply with the following:

1. One (1) temporary, on-site subdivision sign not to exceed 64 square feet total area for two (2) sides or 32 square feet for one (1) side and total overall height of twelve (12) feet may be permitted on each Circulation Element street frontage of the property being subdivided. Not to exceed two (2) such signs for all phases of any subdivision; otherwise a maximum of one (1) sign is permitted.
2. Such sign shall be for the identification of subdivision, price information and the developer's name, address and telephone number.

3. Such signs shall be removed within ten (10) calendar days from the date of the final sale of the land and/or residences or within twenty-four (24) months, whichever comes first. The Director of Planning may approve extensions of twelve (12) months.
  4. A cash deposit of three hundred dollars (\$300) per sign shall be deposited with the sign applications to ensure compliance with this Chapter and removal of such sign. Said deposit shall be refunded to the applicant upon sign removal by the applicant. If the City is forced to remove any signs, then the cost of removal shall be deducted from the deposit.
  5. Signs shall be maintained in good repair at all times.
- E. Off-Site Subdivision Directional Signs: Directional signage to subdivision development projects which is located off-site is to comply with the City of Chula Vista Kiosk Sign Program, pursuant to Section 19.60.480 of the CVMC. The provisions of this program address the location, size and design of kiosk structures and panels, administration, maintenance and removal of such signage. It is intended to provide a uniform, coordinated method for directional signage to residential projects in the City of Chula Vista east of Interstate 805.
- Each sign may contain the name of the subdivision and directional arrow.
  - Any sign approved for a particular subdivision within San Miguel Ranch Community SPA shall not be changed to another subdivision sign without prior approval of the Director of Planning and Building.
  - No other directional signage may be used, including posters, portable signs, vehicles signs, trailer signs or temporary subdivision signs.
  - Said signage shall be allowed until the units within the subdivision are sold out, or for a period of twenty-four (24) months, whichever occurs first. The Director of Planning and Building may approve extensions of twelve (12) months.

### **8.3.2 Commercial, Community Purpose and Multi-Family Signs**

A Planned Signage Program is required to be approved concurrently with or as a condition of approval of the Site Plan and Design Review for commercial, community purpose facility and multi-family residential uses. The purpose of the program is to integrate signs with the proposed San Miguel Ranch architectural and landscaping Design Guidelines. This shall be achieved by requiring signs that:

- Use the same background color;
- Utilize no more than three different colors per sign for lettering;
- Utilize consistent structural support and materials for signs;
- Utilize a landscape setting, logos, color scheme or other methods consistent with this SPA Plan and approved by the Zoning Administrator to convey a unique San Miguel Ranch theme;
- Use the same form of illumination for all signs, or by using varied forms of illumination determined to be compatible by the Zoning Administrator;
- Vary from the above standards if the signage can be determined by the Zoning Administrator to be compatible with the surrounding community character.

The planned signing program must comply with the following criteria. Some reference is made to the Chula Vista Municipal Code. Where there is a conflict, these regulations shall take precedence.

#### **A. Types of Permitted Signs**

##### **Commercial**

1. Ground/monument signs identifying the San Miguel Ranch community, and the name of the commercial center, and no more than two anchor tenants. Monument signs for individual businesses are not permitted.
2. Wall/marquee signs identifying the commercial center and each individual business, consistent with Section 19.34.040 of the CVMC. Marquee signs are limited to use in conjunction with a commercial suite entry.
3. Hanging signs, utilizing a decorative sign suspended from a structure above a walkway or sidewalk on a decorative horizontal pole or awning. These signs are attractive as an alternative or supplement to wall signs in walkways or sidewalks where there is pedestrian traffic. Where they are used, wall and other types of signage should be reduced an equivalent amount to reduce commercial sign clutter.

***Community Purpose Facility***

1. Ground/Monument and wall or marquee signs consistent with section 19.34.040 of the CVMC.
2. Non-illuminated freestanding crosses or other symbols are permitted, if they are limited to religious symbolic use by a church

***Multi-Family Apartments***

1. Ground/monument signs, wall signs, managers sign and vacancy signs pursuant to Section 19.28.050 of the CVMC are permitted with the following exceptions:
  - One ground/monument sign in addition to one wall sign per street frontage is permitted.
  - Freestanding signs are not permitted.
  - Separate vacancy signs are not permitted, but must be combined with ground/monument or wall signs.

***B. Number of Signs***

***Commercial***

1. Two commercial center anchor tenant ID ground/monument signs, and two San Miguel Ranch community ID signs for the entire commercial center are permitted.
2. One wall or marquee sign per business per street frontage (i.e. corner suite gets two, everyone else gets one).
3. One hanging shingle sign per business per street/parking lot frontage.

***Community Purpose Facility***

1. One ground/monument sign and one wall or marquee sign per street frontage.
2. One non-illuminated freestanding religious symbol or cross for each church.

***Multi-Family Apartments***

Per CVMC Section 19.28.050, except:

One wall and one ground/monument sign per street frontage is permitted.



**C. General Size and Location of Signs**

**Commercial**

Sign sizes and locations for commercial center are regulated pursuant to Section 19.34.040 of the CVMC with the following exceptions:

Ground/Monument Signs

*Size* Maximum size for a commercial center ID sign is 50 square feet per side, and six feet in height. San Miguel Ranch community ID sign size will be consistent with the size of other San Miguel Ranch entry monumentation.

*Location* San Miguel Ranch community id sign - at the corner of Mt. Miguel/proctor Valley Road/East H Street intersection; Commercial center ID signs are limited to one per street frontage.

Wall/Marquee

*Size and*

*Location* Regulated pursuant to CVMC Section 19.34.040

Hanging signs

*Size* 12 square feet maximum per side, but should not interfere with or obstruct pedestrians, vehicle sight distance or required landscaping.

*Location* Attached to commercial suite near public entrance

**Community Purpose Facility**

Ground/Monument

*Size* 6 feet in height, 32 square feet per sign face in size

*Location* Pursuant to CVMC Section 19.34.040; and limit of one sign per street frontage.

Wall/Marquee

*Size and*

*Location* Regulated pursuant to CVMC Section 19.34.040; Limit of one sign per street frontage.

**Multi-Family Apartments**

Sign size and location for multi-family uses are regulated pursuant to CVMC Section 19/28.050 with the following exceptions:

Ground/Monument

*Size* Signs shall be a maximum of 24 square feet of sign face per side and a maximum of 4 feet in height.

*Location* One Ground/Monument and one wall sign per street frontage is permitted.

**8.4 Sign Design Standards**

Each sign shall be designed with the intent and purpose of complementing the architectural style of the main building or buildings, or type of business on the site, and to the extent possible, signs located on commercial sites, but in a predominantly residential area, shall take into consideration compatibility with the residential area.

**8.4.1 Relationship to Buildings**

Signs located upon a lot with only one main building housing the use which the sign identifies, shall be designed to be compatible with the predominant visual elements of the building, such as construction materials, color, or other design details. Each sign located upon a lot with more than one main building, such as a shopping center or other commercial or industrial area developed in accordance with a common development plan, shall be designed to be compatible with predominant visual design elements common or similar to all such buildings or the buildings occupied by the “main tenants” or principal uses.

The Director of Planning and Building may condition approval of any sign to require such visual elements to be incorporated into the design of the sign where such element(s) is necessary to achieve a significant visual relationship between the sign and building or buildings.

**8.4.2 Landscaping**

Each ground/monument sign shall be located in a planted landscaped area which is of a shape, design and size (equal to at least the maximum allowable sign area) that will provide a compatible setting and ground definition to the sign. The planted landscaped areas shall be maintained in a neat, healthy and thriving condition.

**8.4.3 Illumination and Motion**

Signs shall be non-moving stationary structures (in all components) and illumination, if any, shall be maintained by artificial light which is stationary and constant in intensity and color at all times (non-flashing).

#### ***8.4.4 Sign Copy***

The name of the business, use, service and/or identifying logo shall be the dominant message on the sign. The use of advertising information such as lists of products (more than one product) is prohibited.

#### ***8.4.5 Relationship to Streets***

Signs shall be designed so as not to obstruct any pedestrian, bicyclist or driver's view of right-of-way.

# CHAPTER IX

## OFF-STREET PARKING REGULATIONS

### 9.1 Purpose

All regulations set forth in this Section are for the purpose of providing conventional off-street parking space for vehicles. The parking requirements of this Section are to be considered as the minimum necessary for such uses permitted by the respective Land Use District.

The intent of these regulations is to provide adequately designed parking areas with sufficient capacity and adequate circulation to minimize traffic congestion and promote public safety. It shall be the responsibility of the developer, owner, or operator of the specific use to provide and maintain adequate off-street parking.

### 9.2 General Provisions

- A. Off-street parking facilities, for both motor vehicles and bicycles, shall be provided for any new building constructed; for any new use established; for any addition or enlargement of an existing building or use; and for any change in the occupancy of an existing building.
- B. For additions or enlargement of any existing building or use, or any change of occupancy or manner of operation that would increase the number of parking spaces required, the additional parking spaces shall be required only for such additions, enlargement or change, not for the entire building or use, unless required as a condition of approval of a Conditional Use Permit.
- C. The required parking facilities needed for any development shall be located on the same site or, if an irrevocable access and/or parking easement is obtained, the parking may be on an adjacent site. Property within the ultimate right-of-way of a street or highway shall not be used to provide required parking or loading/unloading facilities.
- D. The requirements of these PC District Regulations shall apply to temporary as well as permanent uses.
- E. All required off-street parking spaces shall be designed, located, constructed, and maintained to be fully usable during workday periods or as needed by the use of the premises.
- F. Where the application of these schedules results in a fractional parking space, the fraction shall be rounded to the higher whole number.

- G. The parking requirement for uses not specifically listed in the matrix shall be determined by reference to Chapter 19.62 of the Chula Vista Municipal Code or, if not included therein, the approving authority may determine the parking requirement for the proposed use on the basis of requirements for similar uses, and on any traffic engineering and planning data that is appropriate to the establishment of a minimum requirement.
- H. In situations where a combination of uses is developed on a site, parking shall be provided for each of the uses on the site according to the schedule given in Table 2-9.
- I. A maximum of 25 percent of the parking spaces required on any site may be provided as “compact” spaces for non-residential uses, subject to approval of the Design Review Committee.
- J. The design of parking spaces and lots shall comply with the City of Chula Vista’s adopted parking table, included as Table 2-10, which establishes stall sizes relative to parking angle and aisle width.

### **9.3 Schedule of Off-Street Parking Requirements**

The off-street parking requirements for San Miguel Ranch are shown in Table 2-9.

**Table 2-9  
San Miguel Ranch Off-Street Parking Requirements**

USE	MINIMUM OFF STREET PARKING REQUIRED
<b>Parks:</b>	
Parks (Public or Private)	To be evaluated based on proposed facilities and determined by the Director of Planning and Building.
Tennis, handball or racquetball	To be evaluated based on proposed facilities and determined by the Director of Planning and Building.
<b>Public and Semi-Public Uses:</b>	
Day nurseries, day care schools, nursery schools	1 space/staff member plus 1 space/5 children or 1 space/10 children if adequate drop-off facilities, designed to accommodate a continuous flow of passenger vehicles to safely load and unload children. The Director of Planning and Building shall determine the adequacy of proposed drop-off facilities.
<b>Educational Institutions, Public or Private:</b>	
Elementary and junior high school	1 space per employee, plus 5 spaces
Senior high school	1 space per 4 students
Colleges and vocational schools	0.5 space/faculty member and employee plus 1 space/3 students
Churches, convents, monasteries, religious institutions and other spaces of public assembly	1 space/3.5 seats within the main auditorium or 1-space/45 square feet of gross floor area within the main auditorium where there are no fixed seats.
Public Utilities	To be determined by the Director of Planning and Building.
<b>Single Family Residential and Multiple Family Residential:</b>	
SFE	2 garage spaces/unit
SF1	2 garage spaces/unit
SF2	2 garage spaces/unit
SF3	2 garage spaces/unit
SF4	2 garage spaces/unit
SF5	To be determined as part of Site Plan review. (2 garage spaces/unit - recommended)
SFA	To be determined as part of Site Plan review. (2 assigned spaces/unit with min. 1 covered , and 0.33 guest spaces /unit - recommended)
MF	1.5 spaces per 1 bedroom unit+ 0.33 guest spaces/unit 2.0 spaces per 2 bedroom unit 2.5 spaces per 3 bedroom unit OR as determined by Site Plan review

**Table 2-9  
San Miguel Ranch Off-Street Parking Requirements**

<b>Commercial:</b>	
To be determined during Site Plan review and approval based on specific uses, per Zoning Ordinance standard parking requirements.	
<b>Handicapped Parking Requirements:</b>	
Handicapped parking for residential uses shall be provided at the rate of one space for each dwelling unit that is designed for occupancy by the handicapped.	
Handicapped parking spaces shall be provided for all uses other than residential at the following rate:	
<i>Number of Automobile Spaces Provided</i>	<i>Number of Handicapped Spaces Required</i>
1 - 25	1
26 - 50	2
51 - 75	3
76 - 100	4
101 - 150	5
151 - 200	6
201 - 300	7
301 - 400	8
401 - 500	9
501 - 1000	2% of total
1001 and over	20 plus 1/100 automobile spaces provided over 1000
Handicapped parking spaces required by this Section shall count toward fulfilling automobile parking requirements.	
<b>Bicycle Parking Requirements:</b>	
The following matrix contains the minimum bicycle parking requirements. Only those uses identified in the matrix are required to install bicycle parking. Bicycle parking facilities shall be stationary storage racks or devices designed to secure the frame and wheel of the bicycle.	
Multi-family Residential, Office, Community Purpose Facility and Commercial Uses	4 spaces
<b>Motorcycle Off-Street Parking Requirements:</b>	
Motorcycle parking areas shall be provided for all uses, except residential, at the following rate:	
Uses with 25 to 100 automobile parking spaces shall provide one designated area for use by motorcycles.	
Uses with more than 100 automobile parking spaces shall provide motorcycle parking areas at the rate of one motorcycle parking area for every 100 automobile parking spaces provided.	

## 9.4 *Parking Development Standards*

The following property development standards shall apply to all parking areas required by the PC District Regulations.

### 9.4.1 *General Requirements*

The following are minimums unless otherwise stated:

#### *Minimum Size for Parking Spaces*

Residential:

Covered in a garage or carport - 10' x 20' each space, measured from inside walls.

Uncovered - 9' x 19' each space.

Non-Residential:

The size and configuration of parking spaces within parking lots for non-residential uses, including commercial, community purpose facilities and parks shall comply with the City of Chula Vista's adopted parking table (PL-30) which establishes stall sizes relative to parking angle and aisle width.

Motorcycle parking space: 4' by 8'.

Bicycle parking space: 2' by 6'.

#### *Parking Surfaces*

Automobile, handicapped, motorcycle, and bicycle: All parking stalls and maneuvering areas shall be paved and permanently maintained with asphalt, concrete or any other all-weather surfacing approved by the Director of Planning and Building and subject to current City standards.

#### *Striping and Identification*

Automobile: All parking stalls shall be clearly outlined with double lines on the surface of the parking facility, designed in accordance with the approved parking table design standards (Table 2-10).

Handicapped: All handicapped spaces shall be striped and marked according to the applicable State standards.

Motorcycle: All motorcycle spaces shall have bollards installed and appropriately spaced to prevent automobile usage of the motorcycle area. Motorcycle spaces shall be marked so that they can be clearly identified for motorcycle usage.

Bicycle: All bicycle spaces shall be clearly identified.



**Table 2-10  
Parking Table  
Design Standards**

PARKING TABLE

	A	B	C	D	E	F	G		A	B	C	D	E	F	G	
0°	8'0"	8.0	12.0	23.0	28.3	--	--	60°	8'6"	20.7	18.5	9.8	59.9	55.6	--	--
	8'6"	8.5	12.0	23.0	29.0	--	--		9'0"	21.0	18.0	10.4	60.0	55.5	--	--
	9'0"	9.0	12.0	23.0	30.0	--	--		9'6"	21.2	18.0	11.0	60.4	55.6	--	--
	9'6"	9.5	12.0	23.0	31.0	--	--		10'0"	21.5	18.0	11.5	61.0	56.0	--	--
	10'0"	10.0	12.0	23.0	32.0	--	--									
20°	8'0"	14.0	12.0	23.4	40.0	31.5		70°	9'0"	21.0	19.0	9.6	61.0	57.9		
	8'6"	14.5	12.0	24.9	41.0	32.0			9'6"	21.2	18.5	10.1	60.9	57.7		
	9'0"	15.0	12.0	26.3	42.0	32.5			10'0"	21.2	18.0	10.6	60.4	57.0		
	9'6"	15.5	12.0	27.8	43.0	33.1										
	10'0"	15.9	12.0	29.2	43.8	33.4										
30°	8'0"	16.5	12.0	16.0	45.0	37.1		80°	9'0"	20.3	24.0	9.1	64.3	62.7		
	8'6"	16.9	12.0	17.0	45.8	37.4			9'6"	20.4	24.0	9.6	64.4	62.7		
	9'0"	17.3	12.0	18.0	46.6	37.8			10'0"	20.5	24.0	10.2	65.0	63.3		
	9'6"	17.8	12.0	19.0	47.6	38.4										
	10'0"	18.2	12.0	20.0	48.4	38.7										
45°	8'6"	19.4	13.5	12.0	52.3	46.5		90°	9'0"	19.0	24.0	9.0	62.0	--		
	9'0"	19.8	13.0	12.7	52.5	46.5			9'6"	19.0	24.0	9.5	62.0	--		
	9'6"	20.1	13.0	13.4	53.3	46.5			10'0"	19.0	24.0	10.0	62.0	--		
	10'0"	20.5	13.0	14.1	54.0	46.9										

\*Min. Stall Widths

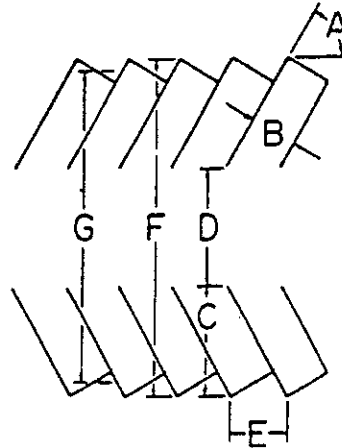
Std.	Compact	
8'0"	7'6"	= 0°-40°
8'6"	7'6"	= 41°-60°
9'0"	7'6"	= 61°-90°

Average gross area required for parking one car at different angles:

0° = 310 sq.ft.	30° = 310 sq.ft.	60° = 280 sq.ft.
10° = 350 sq.ft.	40° = 280 sq.ft.	80° = 275 sq.ft.
20° = 400 sq.ft.	50° = 270 sq.ft.	90° = 275 sq.ft.

- \*Note: a) Compact space 7½' X 15' - standard.  
b) Add 1' in width for all stalls adjacent to any structures.

- A PARKING ANGLE
- B STALL WIDTH
- C STALL TO CURB
- D AISLE WIDTH
- E CURB LENGTH PER CAR
- F CURB TO CURB
- G STALL CENTER



3. Motorcycle parking space: 4 feet by 8 feet.
4. Bicycle parking space: 2 feet by 6 feet.
5. Automobile, handicapped, motorcycle and bicycle: All parking stalls and maneuvering areas shall be paved and permanently maintained with asphalt, concrete, or any other all-weather surfacing approved by the Director of Planning and subject to current city standards.

#### 9.4.2 Special Requirements

- A. Any unused space resulting from the design of the parking area shall be used for landscaping purposes.
- B. All landscaped parking lot islands shall have a minimum inside dimension of four (4) feet and shall contain a twelve (12) inch wide walk adjacent to the parking stall and be separated from vehicular areas by a six (6) inch high, six (6) inch wide Portland concrete cement curbing for a total width of seven (7) feet.
- C. All landscaped areas shall be irrigated automatically and kept in a healthy and thriving condition free from weeds, debris and trash.
- D. All parking facilities shall have lighting in accordance with the current City standards. The lighting shall be designed and installed to confine direct rays to the site. Parking lot lights shall be a maximum height of eighteen (18) feet from the finished grade of the parking surface and directed away from the property lines.
- E. All parking facilities will adhere to the City of Chula Vista Landscape Manual requirements for landscaping within parking areas.
- F. All parking facilities shall be graded and drained to provide for the disposal of all surface water on the site.
- G. In any residential zone except MF, the parking of motorized and non-motorized vehicles shall be subject to the following requirements:
  - No motorized or non-motorized vehicle shall be parked, stored or kept in the front yard, except on land adjacent to the driveway or in the driveway.
  - If motorized or non-motorized vehicles are to be parked, stored or kept on the lot, other than as permitted above, they must be for the resident's personal use.
- H. Regulations for travel trailers, recreational vehicles and other mobile dwellings are as follows:
  - Travel trailers, recreational vehicles and other mobile dwellings shall not be permanently occupied while parked on public streets or stored in front yards, and must be disconnected from water, sewer and electrical services.

- Travel trailers, recreational vehicles and other mobile dwellings shall not be parked on any street in one place for more than 72 hours.
- Travel trailer, recreational vehicles and other mobile dwellings stored anywhere else on a lot shall comply with applicable provisions of the Municipal Code for use, occupancy and storage.

### **9.5 Performance Standards**

- A. All parking facilities required by these PC District Regulations shall be maintained in good operating condition for the duration of the use requiring such facilities. Such facilities shall be used exclusively for the parking of vehicles. Parking facilities shall not be used for the storage of merchandise, or for the storage or repair of vehicles or equipment. Parking facilities shall not be used for the sale of merchandise, except on a temporary basis, pursuant to Section 4.2 (Temporary Uses) of this document.
- B. Handicapped, motorcycle and car pool parking areas, when required, shall be located within close proximity to the entrance of the facility.
- C. All shopping center uses that utilize shopping carts shall provide convenient and safe on-site storage areas for the shopping carts. Designated parking lot collection areas for such carts shall be provided.
- D. Parking lot design in the Community Park, Commercial, Multi-family and Community Purpose Facility areas shall include sidewalks and stairways as necessary to provide convenient pedestrian access to adjacent uses.

# CHAPTER X

## ADMINISTRATION

### ***10.1 Purpose***

The Land Use District Map and these Planned Community District Regulations shall be administered as provided for herein

### ***10.2 Standard Procedures***

The Administrative Procedures, Conditional Uses, and Variances, Chapter 19.14 of the Chula Vista Municipal Code, shall be utilized as applicable to the administration of the Planned Community of San Miguel Ranch.

The administration of SPA Plans shall be as provided for in Sections 19.48.090 through 19.48.150 inclusive of the Chula Vista Municipal Code, except that the Director of Planning And Building may accept less detail or require additional detail to suit the scope of the SPA.

### ***10.3 Administrative Review***

#### ***Purpose***

Certain uses may vary greatly in their effect depending on the scope, location or exact circumstances. In order to avoid the permitting of these uses without any formal review, and to relieve the Planning Commission and City Council of formally reviewing uses which have insignificant or compatible effects, an Administrative Review is established.

#### ***Application***

The Administrative Review is applicable to uses identified on the Permitted Use matrices herein with the symbol "A."

#### ***Procedures***

The procedure shall be as specified in Section 19.14.030, Zoning Administration - Actions Authorized without Public Hearing, in the Chula Vista Municipal Code; except that in addition, the Zoning Administrator may determine after reviewing the scope, location or exact circumstances of the proposed use that the formal hearing process of the Conditional Use Permit procedure is warranted. If the Zoning Administrator makes the determination that a Conditional Use Permit is warranted, then the applicant shall be required to comply with the Conditional Use Permit procedures as specified in Sections 19.14.060 through 19.14.110 inclusive in the Chula Vista Municipal Code.

## ***10.4 Site Plan and Architectural Approval***

### ***Purpose***

The purpose of Site Plan and architectural approval is to review proposed projects to determine compliance with the provisions of these regulations, to establish comprehensive site development regulations which are not specified herein, to address the Planned Sign Program requirement and to promote orderly and harmonious development with good design character. In addition, Site Plan review in single-family detached and attached residential districts shall address the design and development standards for future improvements such as accessory structures (attached and detached), open structures, room additions and private usable open space.

### ***Application***

This approval process is applicable to projects within all San Miguel Ranch districts which include small-lot single family detached units (lots of less than 5,000 square feet), attached single-family and multi-family units, and all non-residential projects. The Tentative Map may be used to satisfy the Site Plan Review requirement for small-lot single family lots which exceed 4,500 square feet within the SF3 and SF4 Districts, at the discretion of the Director of Planning and Building.

### ***Procedures***

The procedures shall be as specified in Sections 19.14.420 through 19.14.480 inclusive of the Chula Vista Municipal Code.

For those neighborhoods requiring site plan and architectural review, said site plan shall establish a process for providing future site improvements, such as accessory structures, open structures, room additions, usable open space, and recreational amenities.

## ***10.5 Conditional Use Permit Review***

### ***Purpose***

Certain uses which may have special site or design requirements, operating characteristics or the potential for adverse effects on surrounding areas, have been determined to require a Conditional Use Permit to evaluate these circumstances, and require formal review and hearing by the Planning Commission, with imposition of conditions of approval as appropriate to the use.

### ***Application***

The Conditional Use Permit requirement is applicable to uses identified on the Permitted Use matrices herein with the symbol "C."

***Procedures***

For all uses requiring a Conditional Use Permit, the applicant shall be required to comply with the Conditional Use Permit procedures as specified in Sections 19.14.070 through 19.14.130 inclusive in the Chula Vista Municipal Code.

***10.6 Other Provisions***

In the event that these regulations do not address any particular matter relevant to the proper development and use of property within San Miguel Ranch, the provisions of Title 19 of the Chula Vista Municipal Code shall apply.

# **SAN MIGUEL RANCH**

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## *Sectional Planning Area Plan*

### **Volume 3 Design Guidelines**

***Project Applicant:***

Trimark Pacific San Miguel, LLC

***Prepared By:***

The Lightfoot Planning Group  
Hunsaker & Associates San Diego, Inc.  
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**Approved**

**October 19, 1999**

Resolution No. 19631

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*San Miguel Ranch SPA Plan*  
*Volume 3*  
*Design Guidelines*

**TABLE of CONTENTS**

<u>CHAPTER/SECTION</u>	<u>PAGE</u>
Chapter I INTRODUCTION .....	1
1.1 Purpose .....	1
Chapter II DESIGN REVIEW PROCESS .....	3
2.1 Introduction .....	3
2.2 Design Standards and Requirements .....	4
2.2.1 Architectural Review Committee .....	4
2.2.2 General Development Requirements .....	4
2.3 Site Plan, Design and Architectural Approval .....	5
2.3.1 Purpose .....	5
2.3.2 Applicability .....	5
2.3.3 Submittals .....	5
2.3.4 Procedures .....	6
2.3.5 City Review Procedures .....	7
Chapter III COMMUNITY DESIGN CONCEPT .....	9
3.1 Design Objectives and Overall Theme .....	9
3.2 Landscape Architecture Design Standards .....	10
3.3 Streetscape .....	15
3.4 Entries .....	16
3.5 Manufactured Slopes .....	21
3.6 Recreational Open Space .....	23
3.7 Natural Open Space .....	26
3.8 Pedestrian Circulation .....	26
3.9 Special Edge Conditions .....	27
3.9.1 Interface with Natural Open Space .....	27
3.9.2 Brush Management/Fuel Modification .....	27
3.9.3 Landscape Screening .....	31
3.10 Project Walls and Community Fencing .....	32
3.11 Lighting .....	42
3.12 Signage .....	43
3.13 Landscape Irrigation Standards .....	46
3.14 Landscape Maintenance Standards .....	47

**TABLE of CONTENTS**  
(Continued)

<b>CHAPTER/SECTION</b>	<b>PAGE</b>
Chapter IV ARCHITECTURAL DESIGN STANDARDS .....	53
4.1 Introduction to Design Standards and Requirements .....	53
4.2 Residential Architecture - Design Character and Style .....	53
4.3 San Miguel Ranch Architectural Styles .....	55
4.3.1 Spanish/Mediterranean .....	56
4.3.2 Monterey .....	58
4.3.3 California Ranch/Hacienda .....	60
4.4 Construction Requirements .....	62
4.5 Residential Design Guidelines - Single-Family .....	62
4.6 Residential Design Guidelines - Multi-Family .....	63
4.7 Commercial Design Guidelines .....	64
4.8 Air Quality Improvement Plan Design Feature .....	65

<b>LIST OF FIGURES</b>	<b>PAGE</b>
Figure 3-1 Landscape Concept Plan .....	13
Figure 3-2 Primary And Secondary Entry Plan .....	17
Figure 3-3 Primary Entry Concept Design .....	20
Figure 3-4 Secondary Entry Concept Design .....	22
Figure 3-5 Local Park Design .....	25
Figure 3-6 Brush Management Plan .....	29
Figure 3-7 Landscape Screening And Transition Plan .....	33
Figure 3-8 Perimeter Wall And Fencing Plan .....	37
Figure 3-9 Fencing Types - Perimeter and View Walls .....	39
Figure 3-10 Fencing Types - Community and View Fences .....	40
Figure 3-11 Fencing Types - Trail Fencing .....	41
Figure 3-12 Potential Recycled Water Use Area Plan .....	49
Figure 3-13 Landscape Maintenance Plan .....	51
Figure 3-14 Spanish/Mediterranean Architectural Features .....	57
Figure 3-15 Monterey Architectural Features .....	59
Figure 3-16 California Ranch/Hacienda Architectural Features .....	61

<b>Appendix A</b>	
Project Master Plant List .....	67

# CHAPTER I

## INTRODUCTION

### *1.1 Purpose*

This document is a guide for the design of site plans, architecture, and landscape architecture within the San Miguel Ranch community. It illustrates the philosophy and commitment to a high quality, planned development program.

These Design Standards are provided to maintain design compatibility and to preserve the quality and character of the community throughout the development of individual areas of San Miguel Ranch.

These Design Standards are intended to:

- Describe the unique and natural characteristics which are to be integrated into development of the community.
- Set overall design parameters for the San Miguel Ranch community.
- Provide design inspiration and standards for builders and architects, while allowing flexibility and creativity in design expression at the parcel and individual project levels
- Create a consistency of materials, colors and forms for San Miguel Ranch.
- Ensure compatibility of all development of land and structures while maintaining the integrity of the community.
- Protect the investment and value of the entire community.

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# CHAPTER II

## DESIGN REVIEW PROCESS

### 2.1 Introduction

The design review process for projects within San Miguel Ranch includes two integrated procedures: design review and approval by the Master Developer, their successors or assigns in interest (“Master Developer”), and review and approval by the City of Chula Vista. The process requires a builder to formulate the design for his parcel and review it with the Master Developer prior to formal application and review of final designs by the City. The City of Chula Vista is responsible for Site Plan and Architectural Review, for uses where required by the PC District Regulations, as well as Landscape Review. Those uses include small lot single family areas (lots of less than 5,000 square feet), single family attached, multiple family, and all non-residential land use areas.

#### *Master Developer Review Process*

The review requirements of the Master Developer are intended to ensure that the builder’s intended product and designs meet the standards and criteria for the San Miguel Ranch planned community. The items to be included in the builder’s design submittal package to the Master Developer are covered by private agreements between the builder and developer, and are generally outlined in Section 2.3.

Following acceptance of the builder’s schematic design, a continuing exchange of information will be expected as the design is finalized and the City’s review process begins. Final, approved plans shall be provided to the Master Developer for his records.

#### *City of Chula Vista Design Review Process*

The requirements of the City are fairly typical, but each builder should contact the City for current, specific requirements. The design review process with the Master Developer should be initiated prior to formal review by the City. Approval or acceptance by the Master Developer does not guarantee approval or acceptance by the City.

The standards and requirements for Site Plan and Architectural Approval and landscape plans shall be as provided for in the San Miguel Ranch PC District Regulations. Single family detached residential areas with minimum lot sizes of 5,000 square feet or larger may use the tentative tract map with typical building elevations and typical building locations on lots as a substitute for elevations and siting of all buildings. Specific requirements for application and review procedures are published in the City’s Zoning Ordinance.

The City has also published a “Landscape Manual” which describes the landscape review process and provides some guidelines for landscape design from the City’s

perspective. The Manual also includes specific standards for landscape and irrigation improvements. Specific landscape design provisions for San Miguel Ranch are presented in Chapter 3 of this Volume.

## **2.2 Design Standards and Requirements**

If a proposal is not covered in the Design Standards, the applicant should contact Trimark Pacific Homes, or their successors and assigns in interest (“Master Developer”) or the City for clarification. The Master Developer has the primary responsibility for interpretation, using the intent of these Design Standards as provided herein. The Master Developer will make final decisions regarding the approval of plans prior to submittal to the City of Chula Vista for those projects requiring City approval.

In addition to the requirements included herein, all improvements shall conform to all appropriate City, state and federal building requirements. Certain development projects will require compliance with Site Plan and Architectural Review requirements as indicated in the San Miguel Ranch PC District Regulations (Volume 2 of this SPA Plan).

Any condition or material not defined in these Design Standards will become a matter of discretionary judgment by the Master Developer and/or the City as applicable, and will be governed by the provisions of Title 19 of the Chula Vista Municipal Code.

### **2.2.1 Master Developer Architectural Review Committee**

The power to approve all development projects, prior to City approval for those projects requiring City approval, will rest with the Master Developer. These responsibilities are to include, but not be limited to:

- Developing, reviewing, publishing and maintaining minimum standards and Design Standards;
- Recommending additions or changes to the Design Standards as required;
- Ensuring conformance of any proposed improvement with the Design Standards defined herein; and,
- Ensuring conformity of completed improvements to previously approved plans and specifications.

### **2.2.2 General Development Requirements**

In addition to the specific Design Standards contained in this document, the following must be observed:

- All plans for residential buildings and accessory structures in San Miguel Ranch must have the approval of the Master Developer.
- Preliminary plans for grading, construction and landscaping must be submitted to the Master Developer for approval prior to submittal to the City.
- Permits for construction and grading must be obtained from the City of Chula Vista prior to commencing construction, but shall not substitute for approval from the Master Developer.

## ***2.3 Site Plan, Design and Architectural Approval***

### ***2.3.1 Purpose***

The purpose of the Site Plan, Design and Architectural approval is to review proposed projects to determine compliance with the provisions of the San Miguel Ranch SPA Plan regulations and to promote orderly and harmonious development with good design character, consistent with the Planned Community District regulations and design guidelines for San Miguel Ranch. Design review may be concurrent with site plan review.

### ***2.3.2 Applicability***

All development projects requiring discretionary review shall be subject to design review by the Master Developer and must comply with submittal requirements and procedures for review. Certain projects and uses require submittal of a formal precise plan or site plan as determined in accordance with the San Miguel Ranch PC District Regulations.

### ***2.3.3 Submittals to Master Developer***

- Submittal of two (2) sets of plans and specifications for construction or installation of any and all improvements within San Miguel Ranch shall be made to the Master Developer at the following address:

San Miguel Ranch  
c/o Trimark Pacific Homes  
85 Argonaut Suite 205  
Aliso Viejo, CA 92656

Trimark Pacific Homes has the power to change the address for the submittal of plans and specifications.

- The applicant must be the owner of the lots for which the submittal is being made. Applications for lots in escrow will not get final approval until the close of escrow.

- In order for submittals to be reviewed by the Master Developer, a complete package of drawings as described on the following pages must be received seven (7) days in advance of review meetings. The owner and his or her architect are encouraged to be present at the meeting.
- The consulting architect and landscape architect shall review all submittals and shall advise the Master Developer as to whether the Design Criteria Standards are met in full. Incomplete submittals will be automatically disapproved.
- Only California state licensed civil engineers shall prepare and sign all engineering plans.
- Only California state licensed architects shall be retained to design all structures on the lots at San Miguel Ranch.
- Only California state licensed landscape architects shall be retained to design all landscape elements which should include, but not be limited to, all hardscape, softscape, irrigation and exterior lighting.

### ***2.3.4 Procedures for Master Developer Review***

#### ***Pre-design Conference***

Is suggested to familiarize the applicant with the basic intent of the Design Standards and to allow a review by the Master Developer to make sure that the applicant is not proceeding in an unacceptable design direction. This submittal is not mandatory, but is strongly recommended.

For this pre-design conference, the applicant should submit and discuss:

- Schematic floor plans at scale: 1/8" = 1'-0"
- Schematic site plan at scale: (minimum) 1" = 10' siting each floorplan on a typical lot i.e. normal lot, corner lot.
- Intended architectural style for the exterior with a general statement regarding color.

#### ***Preliminary Submittal***

The purpose of this required submission is to ensure that the applicant enters the construction drawing phase with full knowledge that the basic design concept has been approved by the Master Developer. For this approval the applicant should submit:



- Preliminary floor plans at scale: 1"=40' (minimum) indicating room sizes and footprint dimensions. Square footage calculations must be included for all floors, garages and patios.
- Preliminary exterior elevations at scale: 1/8" = 1'-0" (minimum) showing the four major sides. Heights, roof pitches and materials must be shown. The front elevation should show shading and shadows with appropriate landscape elements.
- Preliminary roof plan at scale: 1/8" = 1'-0" (minimum) showing roof pitch, building lines and dimensioned overhangs.
- Preliminary site plan at scale: 1" = 10' (minimum) indicating setbacks, drainage, walls, decks, access driveways, proposed landscaped areas and grade elevations. The drawing must also include a north arrow, scale, lot numbers and location.
- Material and Color Board: This submittal shall be on 2' x 2' rigid mounted boards with actual materials and color samples. All samples shall be maximum 2" x 2" clearly labeled with manufacturer, color name, number and where used on building. All exterior materials must be represented on the board. Submittals shall be clearly labeled with tract number and owner's name. The color board shall be retained by the Master Developer.
- If the Master Developer deems necessary, the applicant may have to resubmit the preliminary package for preliminary approval prior to submittal to the City of Chula Vista.

Upon approval, the Master Developer will issue a letter for final approval and stamp two sets of the final plan. Final plan approval by San Miguel Ranch is not to be construed as permission to build. Other requirements may need to be met in order to begin construction, including City approvals.

Note: All approvals of plans by the Master Developer shall be valid for one (1) year from the date of approval, unless otherwise prescribed by a City approval.

If an approval expires, a complete new submittal, including fees will be required. All resubmittals will be reviewed under current Design Standards in force at the time of submittal, including amendments as approved by the Master Developer.

### **2.3.5 City Review Procedures**

Following approval of plans by the Master Developer, all requirements for City review and approval shall be met for projects which require City approvals. These include, but are not necessarily limited to, Site Plan reviews, Conditional Use Permits, any Variance requests, Building Permits, as well as subdivision ordinance

and building code provisions. It is the responsibility of the applicant for a project to ensure that all appropriate permits and approvals have been obtained for a proposed development project.

# CHAPTER III

## COMMUNITY DESIGN CONCEPT

### 3.1 *Design Objectives and Overall Theme*

San Miguel Ranch is envisioned as an exceptional residential community, with a distinctive character drawn from the natural diversity of its physical setting. The open spaces and prominent landforms being retained throughout the site will serve as a visual and physical backdrop for the residential neighborhoods. Design elements will be used to link the individual neighborhoods visually, through consistency in plantings and structural materials, as well as functionally, through recreational amenities and open spaces, to form the fabric for the San Miguel Ranch community.

The overall theme for San Miguel Ranch is that of Early California Spanish Heritage. This theme involves a semi-rural, informal character which incorporates the use of natural materials suitable to the climate and cultural heritage of the southwest, which were common in the former Spanish territories of California. This should be carried out in the architectural styles within the San Miguel Ranch neighborhoods, and in the landscape, project walls and entry designs. This theme ties into the existing and desired nature of the area as well as the history of the property, and the specific elements are described in more detail within the landscape and architectural design sections of this volume.

The Early California Spanish Heritage theme will be accented by sculptural landscape treatments which will personalize San Miguel Ranch and give it a rich character. These accents will be accomplished through the use of sculptural plants, the introduction of man-made materials to contrast with the natural features, and lighting techniques. The following items are to be used to strengthen the overall theme for San Miguel Ranch.

- Large natural open spaces and tree masses (rather than individual trees) will be key elements of the landscape concept. Views of the housing areas will be filtered with large tree masses to maintain a more semi-rural character.
- The landscape theme should draw upon the prominent natural features of San Miguel Ranch to reinforce the character of the community. Prominent landforms, canyons and ridges will be preserved, enhanced and/or appropriately re-contoured. These features and the open space of Mother Miguel Mountain will serve as both a visual backdrop for the community and as a theme for the landscape concept. Large boulders will be used throughout the project where feasible and suitable.
- Vegetation and landforms should be used to screen developed areas and create view windows.

- Existing vegetation within San Miguel Ranch shall be retained where appropriate; new landscape should complement existing vegetation and enhance the coastal sage scrub and chaparral plant communities found on the site.
- Native and naturalized vegetation should be emphasized in the landscape concept. Ornamental/sculptural planting will be used to accent primary and secondary entries and highlight areas of interest, (i.e., parks and interesting landforms).
- Where revegetation is required at or near natural open spaces, special care will be given to the selection of plant material to complement and enhance wildlife habitat while providing fire buffer areas.

### **3.2 Landscape Architecture Design Standards**

The landscape concept for San Miguel Ranch is important in establishing the character of the community. Since architectural themes are likely to vary between and within neighborhoods, the landscape will be the "link" that ties the community together. The landscape has been designed to complement the differing architectural styles by creating a unifying element that creates a consistent theme for the project. The intention is not to delineate each neighborhood through different landscape palettes, but rather to unify them through the use of similar plant materials throughout the San Miguel Ranch community. An overall Landscape Master Plan will be submitted and reviewed prior to approval of the first Final Map, and any grading or improvement plans. As each phase is implemented, landscape plans will be submitted as part of the Grading Permit Procedures. At that time, consistency between individual projects and the Landscape Master Plan will be established. The selected plant palette provides consistent plant materials that can blend the differing architectural styles into one cohesive theme.

The SPA landscape concept for San Miguel Ranch will follow the overall concept of Early California Spanish Heritage, and is designed to achieve the following goals:

- An informal, semi-rural landscape theme shall be established rather than a formal one.
- Undesirable views, such as the SDG&E substation and easements, shall be "softened" through screening, planting and berming.
- Prominent natural features within San Miguel Ranch shall be maintained and incorporated where feasible into the landscape.
- Transition areas from "suburban" to "rural" shall be provided, and these edges will be softened through use of plant materials and contour grading.

- Fuel modification techniques for fire safety shall be incorporated into the landscape design.

The concept for San Miguel Ranch is composed of the following elements (see Figure 3-1).

### ***Theme Corridor***

Mount Miguel Road is a major corridor through San Miguel Ranch and is planned to carry the landscape design concept through the community. Planting areas on and adjacent to this roadway are designated as the theme corridor, to provide a sense of continuity and an informal semi-rural setting for San Miguel Ranch. Within the theme corridor, tree massing should be used as opposed to regularly-spaced single trees. The groupings or groves should provide an overall higher number of trees along the corridor than the minimum street tree quantities. The massing should be used to buffer adjacent residential homes and create interesting internal views of planting and landform.

### ***Accent Plantings***

The Early California Spanish Heritage theme should be accented by sculptural treatments which will personalize San Miguel Ranch and give it a rich character. These accents should be accomplished through the use of sculptural plants.

Accent plantings should occur along the theme corridor and internal loop street to provide internal focal points and highlight entries. At entries, the sculptural plantings should be integrated with natural and man-made materials into the surrounding landscape to create simple yet bold entry statements.

### ***Recreational Areas***

The natural open space areas being preserved for San Miguel Ranch create an open space character that is a crucial element in creating the semi-rural theme for the project. Various recreational components have been developed to create a strong recreational infrastructure within the San Miguel Ranch community, including both passive use areas and active use areas.

Recreational areas include:

- Public Community Park – active uses
- Private Neighborhood Park – active uses
- Private Local Parks – passive uses
- Private Easement Corridor – passive uses

Passive recreational areas should include a more native and naturalized plant palette to create and enhance the feeling of an informal, natural setting, while incorporating ornamental plantings as appropriate to the function of the area. Private local parks (such as OS-8 and the entries to Neighborhood L) should include plant materials

which are suitable for informal play/gathering activities. The Neighborhood L entry area should incorporate a strong tree planting element. Within the active recreational parks a more ornamental plant palette should be used in combination with the native species, particularly near transitional areas which are more natural. The combinations should provide for a cohesive project that is unified by the landscape theme, and should be detailed as part of the Landscape Master Plan.

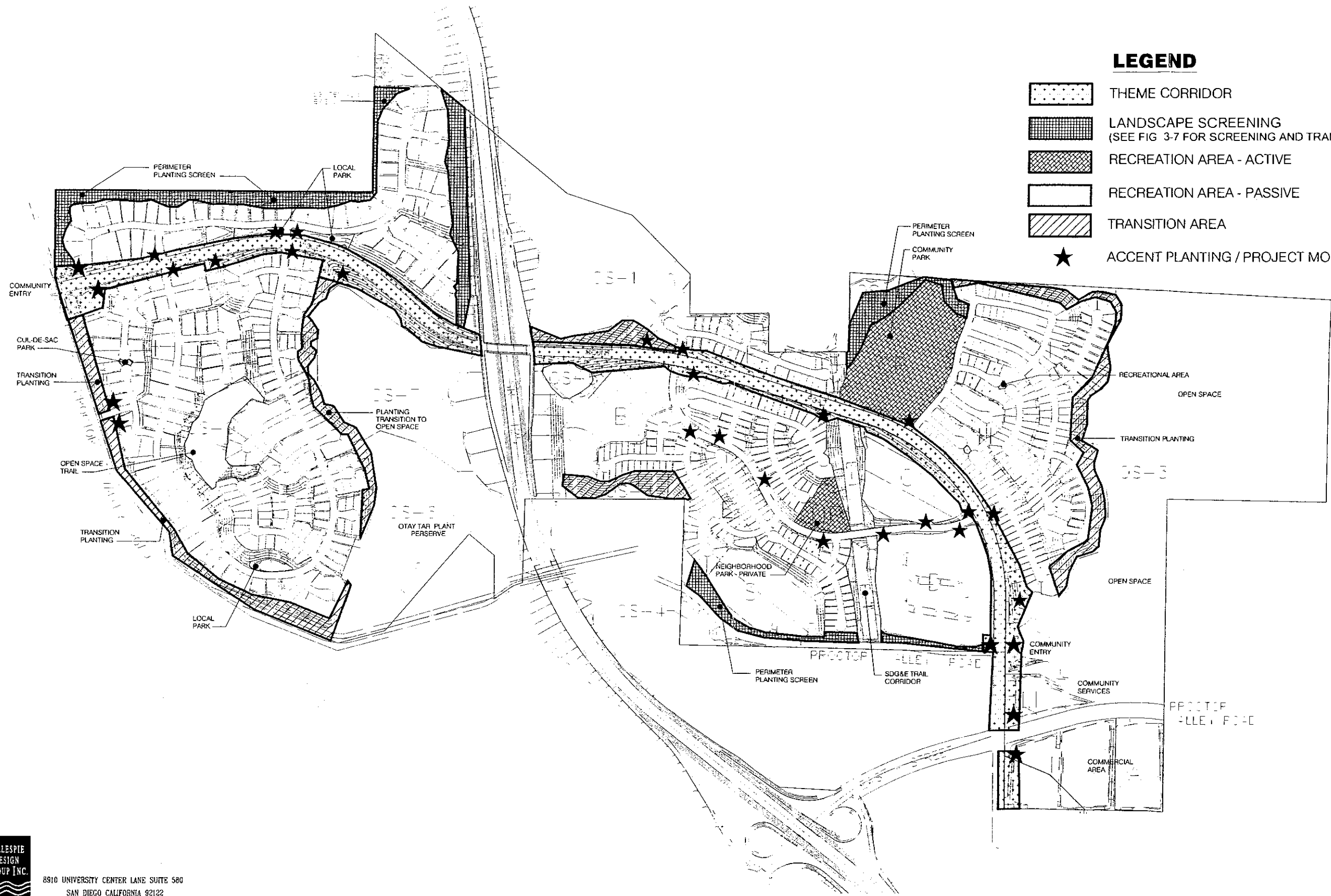
### ***Landscape Screening***

Landscape screening is an important conceptual component as it helps to anchor the development into the surrounding landscape and provide desired buffers between uses. This is accomplished through the layering and massing of plant material combined with the sculpting of landforms to create a screening barrier. Varying species, heights and forms of plant material should be used to create natural buffers or screening of potentially undesirable views. Figure 3-6 identifies the locations of specific areas which require landscape screening.


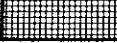




### ***Transition Areas***

Transitional areas should soften edges through the use of plant material and contour grading to make “suburban” edges appear more “semi-rural.” Generally, these areas occur adjacent to open spaces where more native plants should be used to blend into the natural environment. Figure 3-6 identifies the locations of specific areas which require landscape transitions.

One of the transitional areas identified is along Proctor Valley Road, west of SR125. This edge transition is located along a roadway and is different from other areas shown of Figure 3-6 that are transitioning to adjacent open space areas. Along the eastern side of this road there is a large easement for a County Water Authority line, and planting of trees is prohibited within this easement. In addition, an equestrian trail is to be located along this side of the road. In order to complement the equestrian character along this portion of Proctor Valley Road yet provide a transition to the developed edge of the San Miguel Ranch residential areas, the use of native and naturalized shrubs and groundcovers is encouraged within the Water Authority Easement, with appropriate transitions to more ornamental species outside of the utility easement. Trees are required to be planted outside the utility easement and along slopes.



**LEGEND**

-  THEME CORRIDOR
-  LANDSCAPE SCREENING  
(SEE FIG 3-7 FOR SCREENING AND TRANSITION PLAN)
-  RECREATION AREA - ACTIVE
-  RECREATION AREA - PASSIVE
-  TRANSITION AREA
-  ACCENT PLANTING / PROJECT MONUMENTATION

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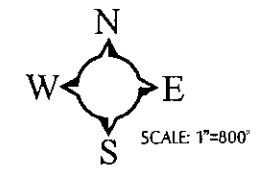


Figure 3-1

### 3.3 Streetscape

The intent of the landscape theme is to create a strong landscape element linking the individual neighborhoods to the overall community design with a natural and semi-rural landscape. The following guidelines will apply to landscape elements. The location and design of utilities, street furniture, bus/transit benches and trash receptacles will be per city standards.

#### *Mount Miguel Road*

- Mount Miguel Road will "carry" the landscape concept throughout the community and provide a sense of continuity and relationship between the neighborhoods within San Miguel Ranch.
- Streetscapes will feature tree groupings of various numbers in the parkways and landscape buffer planting areas, as opposed to regular spacing of single trees. The groupings of trees should complement the meandering sidewalk to create a more informal, semi-rural character and should be located where there is adequate width to accommodate the trees. Where trees are grouped, they should be spaced with consideration for the mature size of the selected species to avoid overcrowding.
- Tree massing should be used to buffer views and noise from adjacent residential areas.
- The plant palette along Mount Miguel Road shall be a combination of native and naturalized plants accented by ornamental groups to create a rich, but informal semi-rural character.
- The streetscape shall be strengthened by the inclusion of a 30-foot landscape buffer strip along the north side and an 8-foot landscape buffer strip along the south side, which allows the opportunity to use some larger species of street trees and shrubs.
- Meandering the south-side sidewalk and the north-side trail components will create a boulevard effect allowing for the physical separation of pedestrian and vehicular traffic and the opening up of views. They can also act as a buffer to the residential areas, creating a strong semi-rural feeling through the community.
- Mount Miguel Road shall be punctuated by accent plantings to create interest and rhythm along the road.



***Proctor Valley Road (extension of East “H” Street) east of Mount Miguel Road***

This section of roadway is designated as a Scenic Roadway by the Land Use Element of the General Plan. All development proposals adjacent to this roadway are subject to design review, including landscaping, to ensure that the design of the development proposal will enhance the scenic quality of the highway. The Site Plan review required for neighborhoods M, N and A will need to address the design factors for scenic highways outlined in Section 8.2 of the Land Use Element of the General Plan to the satisfaction of the Director of Planning and Building.

- Median planting shall be used as a backbone of the semi-rural landscape theme for the commercial district to soften the overall visual effect of these more intensive uses.
- Parkway planting should reinforce the semi-rural character and blend into the surrounding residential communities.
- Community entries, including special fencing, neighborhood monumentation and vegetation should be used to reinforce an informal, semi-rural style.

***Residential Collectors***

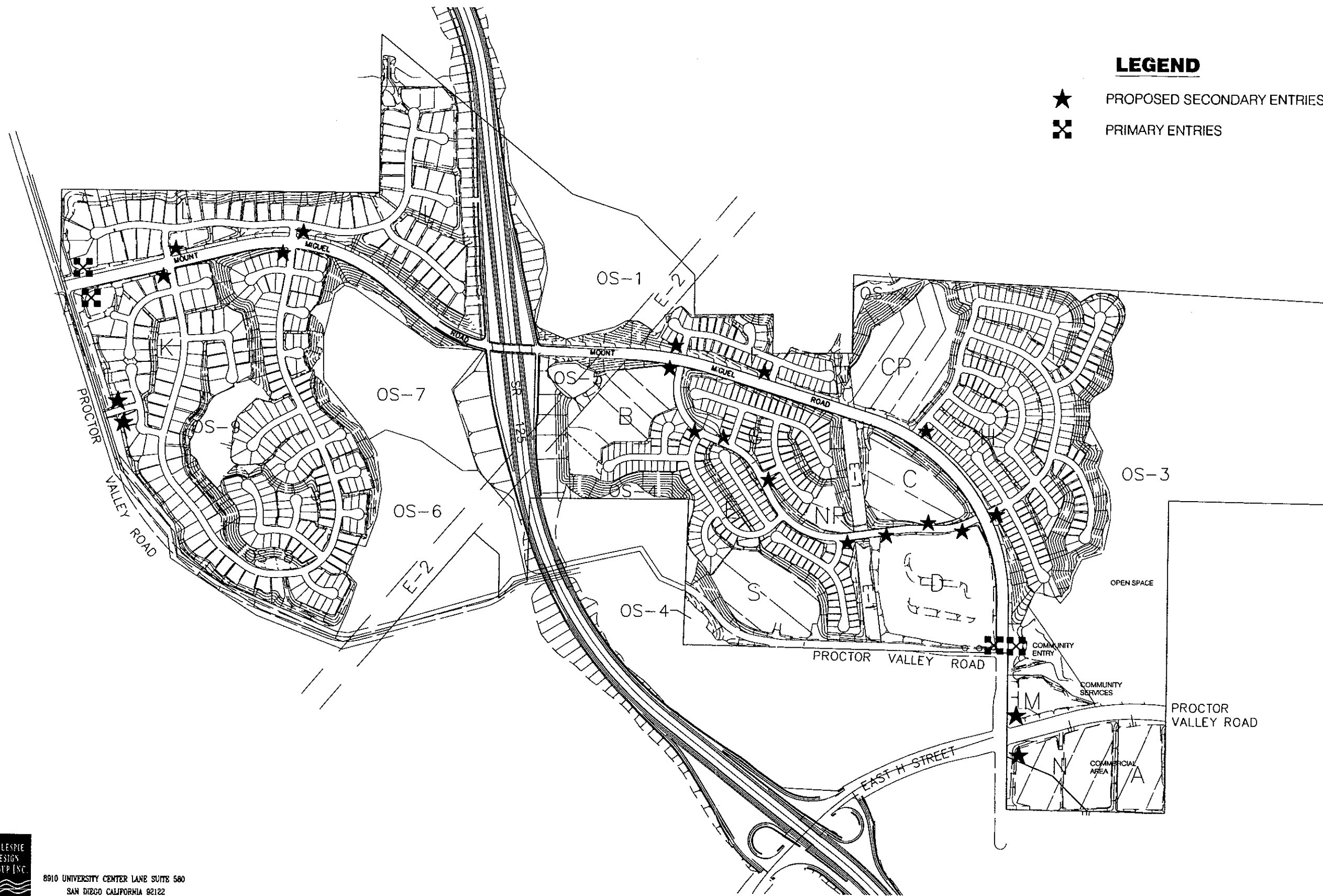
- Neighborhood entries should be identified through accent planting and monumentation to be defined as part of the Landscape Master Plan. This will help establish the individual neighborhood character while acting as a transition point for pedestrian and vehicular circulation.
- The streetscapes within the residential areas should complement the naturalistic character of the area. Formal, traditional plantings and plant materials should be avoided. During the subdivision phase, a plant palette for each neighborhood shall be developed.
- The landscape should unify each neighborhood area and create a context for the community.

### **3.4 Entries**

The entry points to the project will provide the first impression of the San Miguel Ranch community. There are two types of entries for San Miguel Ranch: primary entries, which will occur at Mount Miguel Road at the project boundaries; and secondary entries, which are designed at the entrance to the individual residential neighborhoods (Figure 3-2). All entries should be highlighted by accent plantings. Figures 3-3 and 3-4 are illustrative of the design concepts for entries. Specific designs are subject to separate review and approval. All entry monumentation and hardscape improvements shall be in a separate lot and maintained by the homeowner’s association. The following guidelines will apply to the project entries.

**LEGEND**

- ★ PROPOSED SECONDARY ENTRIES
- ✠ PRIMARY ENTRIES



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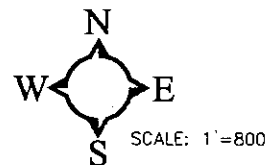
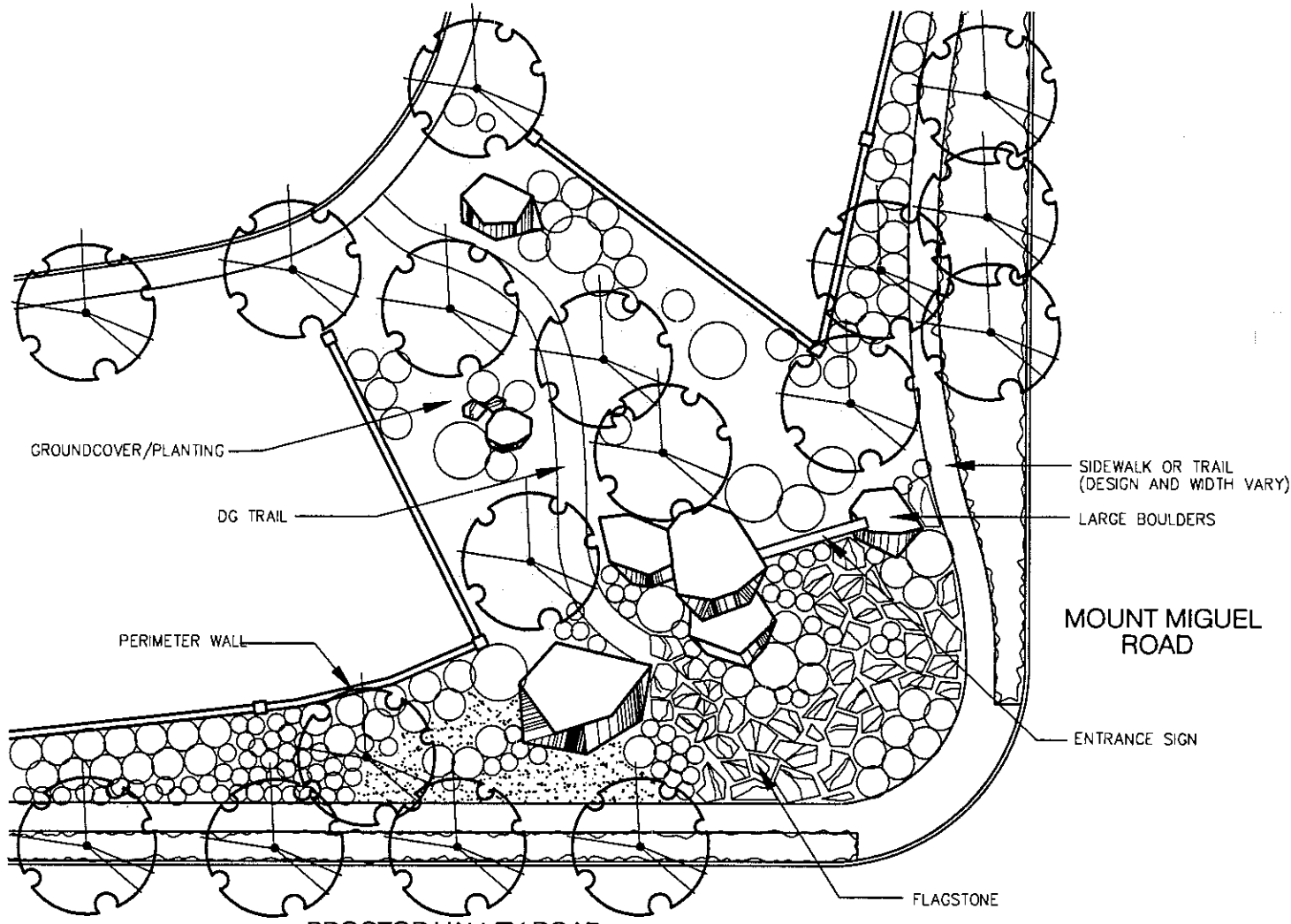
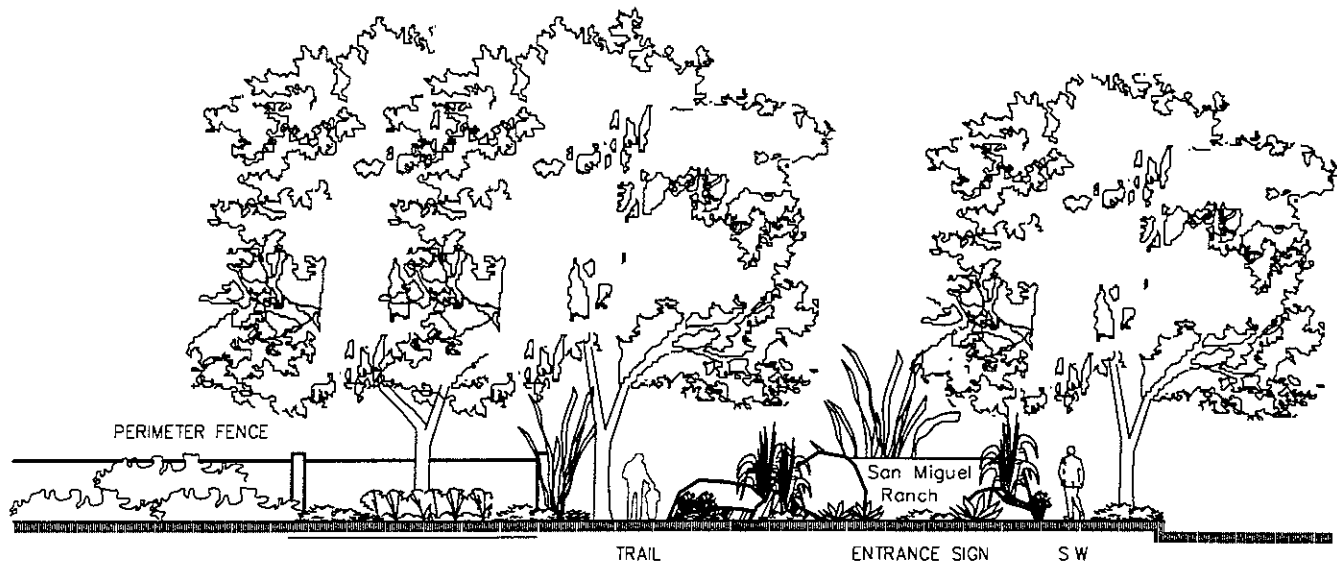


Figure 3-2

**PRIMARY AND SECONDARY ENTRY PLAN**

*Primary Entries*

- The primary entries to San Miguel Ranch should "announce arrival," and immediately set the theme and character of the community. The entries are also a key element in establishing the overall landscape concept. Entry points should be carefully planted with materials which should be carried out throughout San Miguel Ranch on streets, and into each neighborhood. (Figure 3-3)
- The character and concept of the entries should be to integrate natural and man-made materials into the surrounding landscape to create a simple, yet bold welcome statement to this semi-rural community. Natural materials would include large boulders, flagstone and decomposed granite. Man-made materials would include slump block, wrought iron and copper.
- The entry design should include a simple slump block monument wall that is flanked by large boulders of varying sizes. The monument sign should be integrated into the surrounding landform through the use of berms and plantings. The slump block wall has been chosen for its anti-graffiti properties, to fit within the semi-rural theme, and to be consistent with the use of similar materials on adjacent projects.
- The massing of the wall, boulders and plant material should be designed to create a strong sense of permanence for the community.
- The entry design will create a sense of contrast through the following conditions:
  - Straight wall forms in conjunction with round, earth tone boulders;
  - Sculptural plant materials set against a simple stucco wall;
  - Accent lighting to provide illumination and contrasting shadows.
- Specimen trees and shrubs shall be utilized to help establish a sense of permanence and entrance.
- The plant material shall be a combination of arid, native and sculptural plants, grouped to accent the entry monument.
- The ground plane in front of the entry monuments shall be a combination of shrubs, groundcover, decomposed granite and flagstone to provide an intimate "plaza area."
- Accent uplighting, concealed at ground level, may be used to illuminate the primary entries where maintained by the homeowner's association.



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NOTE: THIS EXHIBIT ILLUSTRATES TYPICAL ELEMENTS FOR USE AT PRIMARY ENTRY LOCATIONS. SIDEWALK, TRAIL AND WALL LOCATIONS WILL VARY BASED ON THE ENTRY LOCATION AND PARKWAY CONFIGURATION.

N.T.S.

Figure 3-3

# San Miguel Ranch

## PRIMARY ENTRY CONCEPT DESIGN

### ***Secondary Entries***

The Secondary Entry design as shown in Figure 3-4 shall occur where the Residential District collector streets meet Mount Miguel Road and at the entry to individual neighborhoods. All entry monumentation and hardscape improvements shall be in a separate lot and maintained by the homeowner's association.

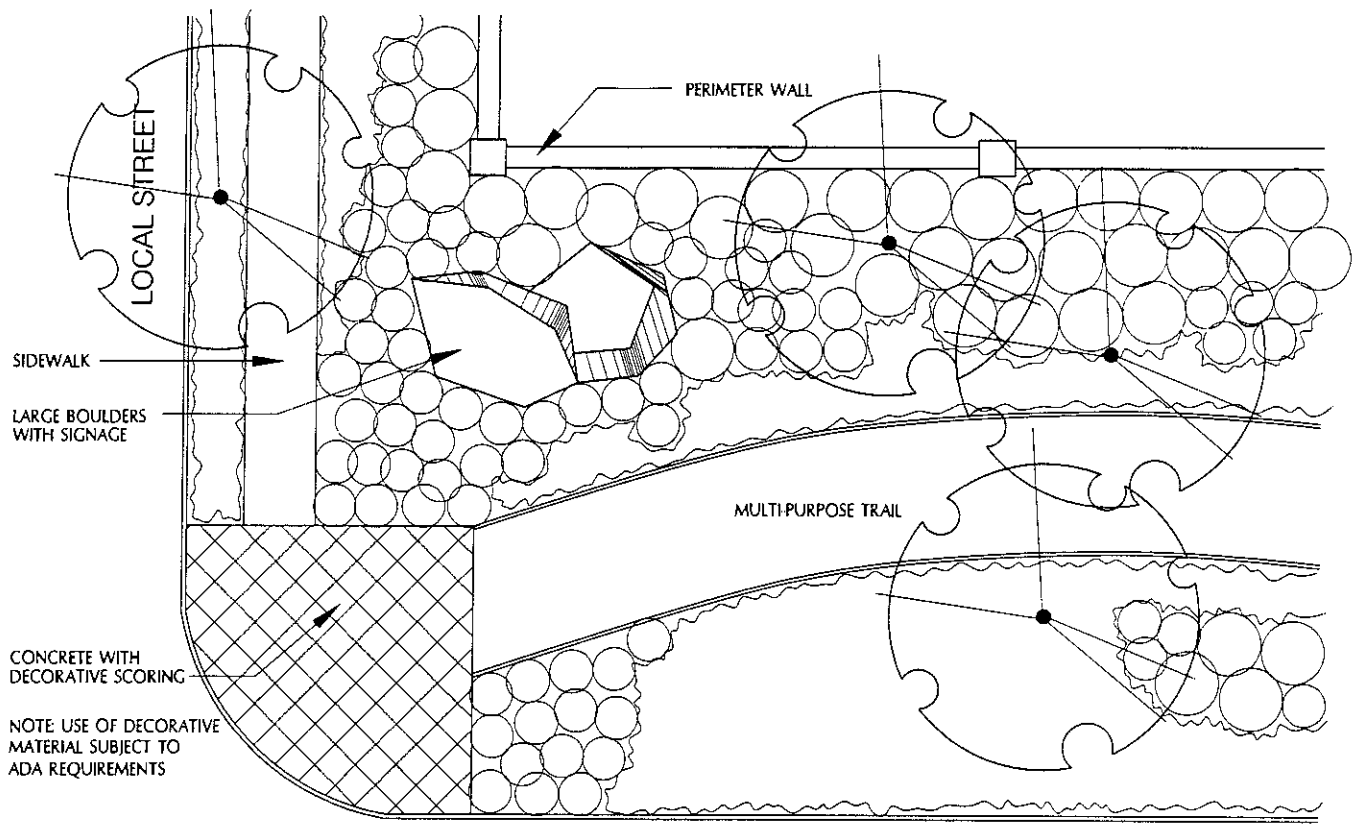
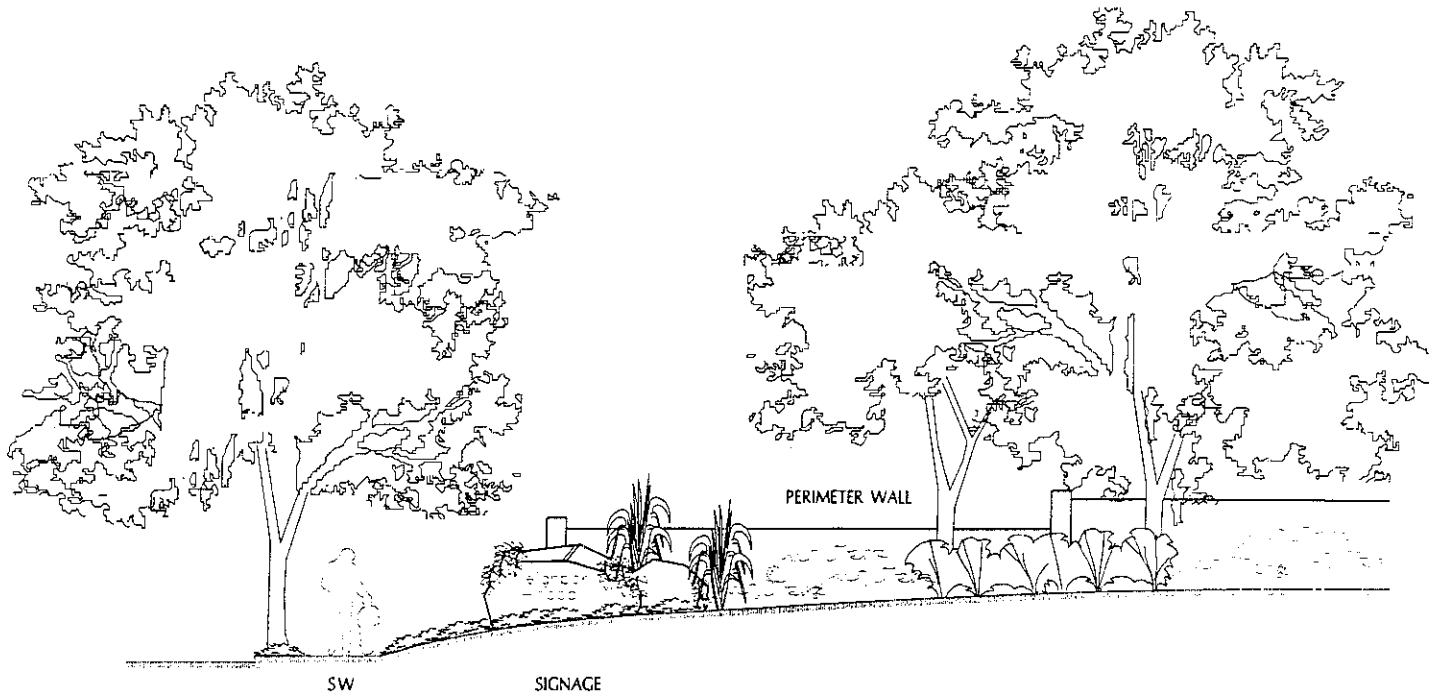
Monumentation, accent planting and the use of specimen trees that are compatible with the surrounding landscape shall be used to generate identity for the individual neighborhood communities.

- The secondary monumentation shall be composed of the same materials as the primary entries except on a smaller scale.
- Each neighborhood entry design should be unique unto itself, but overall style and materials should tie back into the overall semi-rural theme.
- Selected plant material types from the primary entries should be incorporated into each neighborhood entry to maintain consistency with the overall community.
- A smaller, slump block wall or boulder face may receive the signage.
- Neighborhood signage is to be illuminated by concealed ground level lighting.

### ***3.5 Manufactured Slopes***

Manufactured slopes will occur throughout San Miguel Ranch to retain the overall landform characteristics of the property. Slopes shall be graded to provide visually pleasing landforms as required in the section on grading design concepts and standards (Chapter IV, Volume 1 of this SPA Plan). The following conditions shall be applied to all manufactured slopes:

- Erosion control shall be required for all graded areas to protect newly created slopes or denuded areas from erosion or unsightly appearance.
- Based on the surrounding setting and design intent of the area, compatible plant material should be informally grouped to stabilize and accent the slope.
- Slopes adjacent to the natural open space areas or perimeter slopes shall be graded to blend with the adjacent contours and the existing semi-rural character. Slope planting should consist of native or drought tolerant planting and the use of irrigation systems consistent with the Brush Management guidelines for San Miguel Ranch.



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**MOUNT MIGUEL ROAD**

NOTE THIS EXHIBIT ILLUSTRATES TYPICAL ELEMENTS FOR USE AT SECONDARY ENTRIES.  
 SIDEWALK, TRAIL AND WALL LOCATIONS WILL VARY BASED ON SPECIFIC ENTRY LOCATION  
 AND PARKWAY CONFIGURATIONS.

NTS.

Figure 3-4

# San Miguel Ranch

## SECONDARY ENTRY CONCEPT DESIGN

- Manufactured slopes along Mount Miguel Road shall be planted to reinforce the theme corridor and frame desirable internal views.
- Slopes located within neighborhoods shall be planted to provide vertical interest and buffer neighborhood yards.
- Permanent slope or interior slope areas shall be planted with a mixture of plant materials including several drought resistant species and shall have permanent automatic irrigation systems.
- Individual homeowner lot slopes shall require permanent irrigation systems and plantings.
- Most cut slopes should be serrated to aid in plant revegetation and help retard erosion.

Other specific provisions regarding the treatment of specific slopes are addressed in Volumes 1 and 2 of this SPA Plan.

### **3.6 Recreational Open Space**

An important component in strengthening the semi-rural, outdoor character of San Miguel Ranch is the recreational open space. San Miguel Ranch includes a combination of public and private recreational areas which will provide facilities with a range of activity levels. These facilities have been carefully located and will be connected with a sidewalk and trail system to create a strong recreational infrastructure for San Miguel Ranch.

#### ***Community Park – Public***

The public Community Park will service the active recreational needs of an area beyond San Miguel Ranch and the facilities will be determined by the City of Chula Vista Building and Planning Department in consultation with the Recreation Division of the City Library Department. The park will be designed to the standards set out in the City of Chula Vista Landscape Manual and pursuant to approval of the San Miguel Ranch Community Park Master Plan. The character of the park should be in keeping with the overall character of the community.

#### ***Neighborhood Park – Private***

The Neighborhood Park will be a private, active recreation area designed to suit the needs and requirements of San Miguel residents. The Neighborhood Park may include a recreational building, play equipment, site furniture, courts, lighting and recreational open space. The park should have its own character, yet through the use of some similar materials and plant types, should tie into the overall San Miguel Ranch theme. City review and approval of a Site Plan for the Neighborhood Park will be required.

***Local Parks – Private***

Local parks will provide additional opportunities for passive green spaces for residents. Some occur at the head of two adjacent cul-de-sacs and will provide an emergency access route between the two cul-de-sacs (see Figure 3-5). This is a more aesthetically pleasing and practical approach to break away bollards that the fire department doesn't favor. Remaining local parks will be mainly turf with the opportunity to plant larger species trees. Facilities should include walkways, seating and play equipment. Landscape for these parks shall be reviewed by the City as part of the project's landscape plans and improvement plans.

***Open Space – Private***

The open space (OS-9) in the west subarea provides an opportunity for a passive (walking only) trail link between two residential areas. Use would be limited to the trail. Supplemental transition plantings of trees and shrubs may be added along the perimeters of this open space area to provide a more gradual visual transition and blending between the natural plant materials and the more ornamental plantings on manufactured slopes, and to offset the visual impacts of adjoining development.

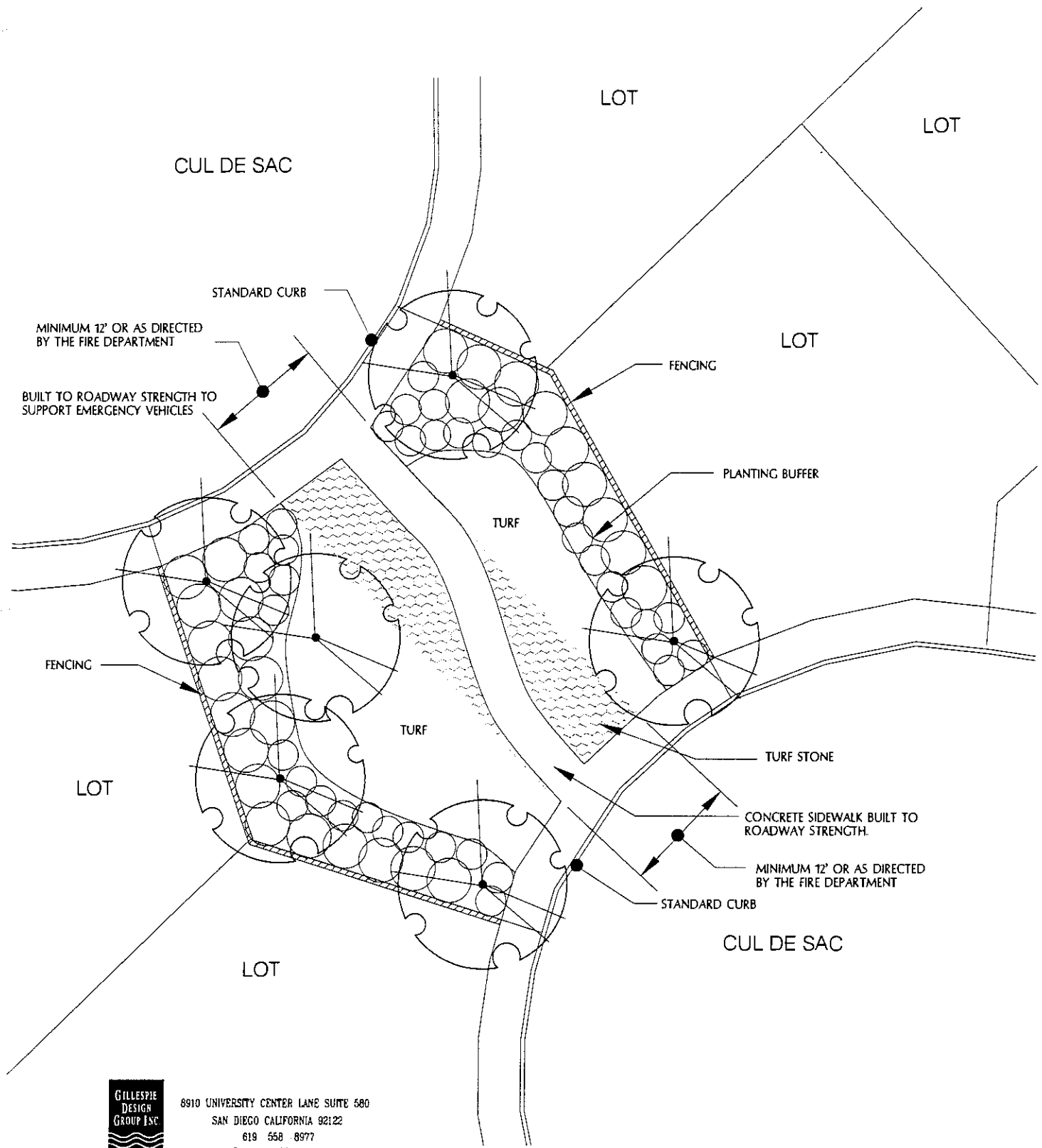
***Easement Corridor – Public***

The SDG&E easement in the east subarea provides an excellent location for this passive trail linkage and has been approved in concept by SDG&E. Final written approval is required prior to Tentative Map approval. If final approval of a trail in the SDG&E easement is not obtained a separate trail facility shall be designed outside the SDG&E right-of-way.

A trail connecting the school site, the neighborhood park and the community park is required as part of San Miguel Ranch. This corridor will remain naturalistic and a stabilized decomposed granite trail will provide the trail link. The specific alignment of the trail will generally be located separate from the existing service road, to allow for SDG&E's regrading and maintenance activities. All trail locations within the easement shall require specific approval by SDG&E and the City of Chula Vista. A letter of permission to grade must be obtained from SDG&E for any grading within either of the two existing easements.

Supplemental planting should be grouped along the trail to provide interest. Trails and plantings within the SDG&E easement must be designed to maintain visibility between Proctor Valley Road and Street "A" through the easement acceptable to the City of Chula Vista Police Department. Additional planting will be as deemed acceptable by the City of Chula Vista and the Department of Land Planning and Natural Resources Division of SDG&E. All planting and irrigation inside both easements must be approved by SDG&E, and will be the maintenance responsibility of the Homeowners Association. Irrigation systems for the plantings typically must be located 100 feet away from either side of steel towers and 50 feet away from either side of wood structures. If the irrigation piping must cross SDG&E's access roads,





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Figure 3-5

# San Miguel Ranch

## LOCAL PARK DESIGN

NTS

a 2-foot deep conduit enclosed in concrete must be used to avoid conflicts with SDG&E's vehicles.

### **3.7 Natural Open Space**

The natural open space areas within San Miguel Ranch are provided to achieve the following purposes.

- Preserve, enhance and manage natural resources.
- Preserve vistas and conserve viewpoint areas for the enjoyment of future generations.
- Establish edges to help define communities and neighborhoods.
- Retain part of the natural history of San Miguel Ranch to reinforce the site character of the community.
- Promote public health and safety.
- Provide opportunities for limited recreation and public use, such as trails and pathways.
- Strengthen the unique semi-rural character of San Miguel Ranch.

### **3.8 Pedestrian Circulation**

An important feature of San Miguel Ranch is the pedestrian circulation. Its design is proposed to encourage non-vehicular movement within San Miguel Ranch and beyond to Chula Vista's greenbelt trail system. This is accomplished through the use of sidewalks and trails which allow access from the residential neighborhoods to the commercial, community purpose facility, open space and recreational amenities provided in the community.

The circulation is set up in a hierarchy where a meandering, non-contiguous sidewalk and multi-purpose trail along Mount Miguel Road are the backbone of the infrastructure. All streets within the residential neighborhoods will have contiguous sidewalks, consistent with currently adopted standards. Connections to the above sidewalks and multi-purpose trail and recreational amenities are all made through a series of informal stabilized decomposed granite trails. Consistent with the emphasis on trail connections in San Miguel Ranch, it is desirable to have non-contiguous sidewalks along the loop roads that feed off Mount Miguel Road and streets located in the west subarea. The applicant intends to work with the city to develop a modified standard for such non-contiguous sidewalks, and if subsequently approved, would use these on the identified loop roads.

### 3.9 Special Edge Conditions

#### 3.9.1 Interface with Natural Open Space

The landscape approach, where residential development occurs adjacent to natural open space, should reflect a sense of cohesiveness while acting as a buffer between these two different uses. The proper planting of this interface should create an effective visual buffer and transition, and should be designed with the intention of minimizing environmental impacts of the project to natural open space areas. This will be achieved through the following techniques.

- Plant species compatible with the adjacent undisturbed open space vegetation shall be utilized.
- Seed mixes composed of similar plant species to the adjacent open space shall be used.
- Planting techniques (i.e., application and planting methods, berming, etc.) should be considered on an individual site basis, subject to the specific characteristics of the open space area and the adjacent areas.
- Fencing type and location should be proposed as each situation warrants (i.e. view fence and wall may be required to minimize noise, light and/or domestic animals from impacting the MSCP areas).

#### 3.9.2 Brush Management/Fuel Modification

Brush Management will be necessary where development in San Miguel Ranch is adjacent to natural open space (See Figure 3-6). The reduction of fire hazard and the preservation of natural open space values are important components of the fuel modification requirements.

Within San Miguel Ranch, fuel modification should be consistent with the City of Chula Vista's criteria which is based on the County of San Diego Brush Management criteria. San Miguel Ranch is considered a moderate fire hazard area with a 150-foot Brush Management area divided into three 50-foot zones.

##### *Manufactured Slopes - Zone 1 (first 20-50 feet from structures)*

The width of Zone 1 will vary between 20 and 50 feet, as determined by the City Fire Marshall. This determination will be based on site conditions such as slope gradient, existing natural vegetation, fuel supply, existence of topographical features such as canyons, and residential density.

- Trees in Zone 1 should be single trees spaced so that canopies are less than or equal to 30 feet.

- Shrub plantings should be species with a maximum mature height of 24 inches or less.
- Permanent irrigation is required.
- The building of timber structures such as decks, arbors, and sheds may be permitted, however, measurement of the edge of Zone 1 will commence at the point where the timber structure is closest to the natural open space. Concrete patios and other non-combustible materials are strongly recommended in this zone.
- This area usually includes private individual yard areas.

***Manufactured Slopes - Zone 2 (additional 50 feet beyond Zone 1)***

- Trees may be planted in groupings of 2-3 trees. Groupings should not exceed 4 trees together.
- Shrub plantings are limited to species with a maximum mature height of 4 to 6 feet.
- Permanent irrigation is required.

***Manufactured Slopes - Zone 3 (additional 50 feet beyond Zone 2, to a maximum of 150 feet from structures)***


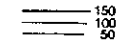
- Canopy to canopy spacing of trees is recommended, so that at maturity, tree canopies do not overlap.
- Large shrubs shall be planted so that the spacing between them is equal to a distance of 3 times their height.

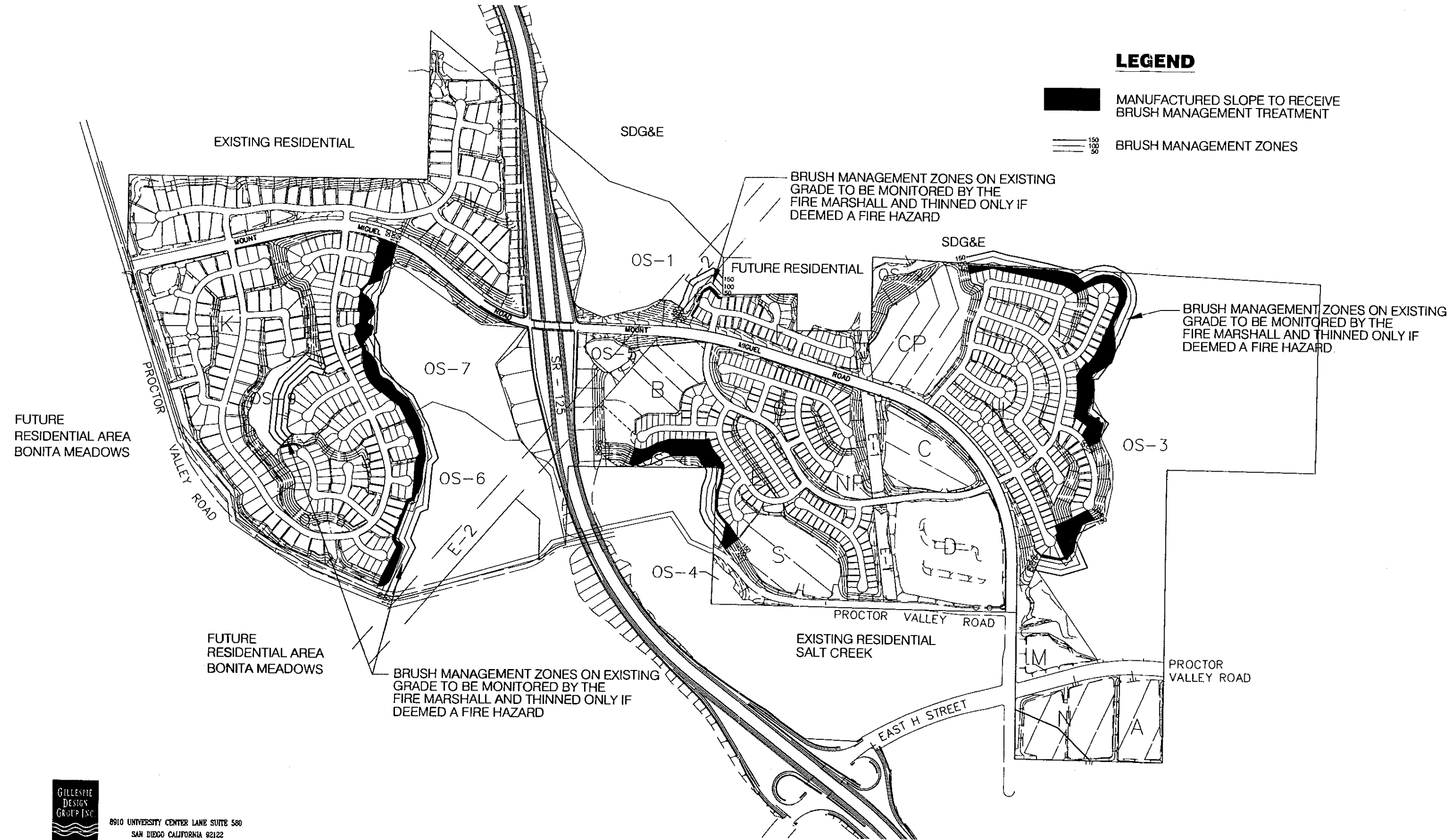
The City Fire Marshall may approve site-specific waiver(s) to the fire setback requirement based on a finding of low fire hazard. Alternatively, project applicants may work with the City Fire Marshall to develop project-level design methods, including but not limited to sprinklers, fire walls, etc. to reduce the fire setback requirement.

***Existing Slope Conditions - All Zones***

- The Fire Marshall will evaluate the field conditions for brush management where development is located within 150 feet of natural brush areas. Once this situation exists following development, the Fire Marshall will make recommendations regarding any fuel modification or brush management. Due to the nature of the plant material onsite, which in most areas is low growing and sparse, it is anticipated that monitoring of the natural areas will

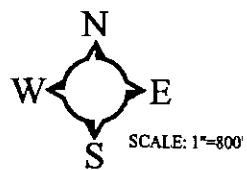
**LEGEND**

-  MANUFACTURED SLOPE TO RECEIVE BRUSH MANAGEMENT TREATMENT
-  BRUSH MANAGEMENT ZONES



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**San Miguel Ranch**



**BRUSH MANAGEMENT PLAN**  
 VOL 3 Page 29

Figure 3-6

Insert Figure 3-6  
Brush Management  
11x17

Figure 3-6 back  
11x17

be all that is necessary. In most cases, this situation exists when the slope runs uphill from the future homes, which is less of a fire concern than a downhill slope condition.

- No permanent irrigation is required for existing natural slopes.

The plant material proposed for the brush management zones will be a combination of the Fire Retardant and/or Drought-Tolerant Plants outlined by the City of Chula Vista Landscape Manual as well as low fuel load transition species (adjacent to the open space) as recommended by the project biologist. Diversified species selection is also recommended.

All slope plans are to be submitted to the City of Chula Vista Fire Marshall for review in conjunction with landscape plan review.

Though it is not mandated, it will be recommended to all builders adjacent to open space to consider incorporating fire safety building features into their homes to help minimize fire risks. For example:

- Provide boxed eaves and reduced roof overhangs to minimize heat and flame entrapment against the house.
- The underside of cantilevered and exposed decks should be enclosed with fire resistive materials.
- Exterior attic and under-floor vents should not face potential fire corridors, and should be covered with 1/4" or less wire screen.
- Vents under eaves should be located near the roof line rather than the wall to minimize heat entrapment of sparks near the wall.
- 1-hour fire-resistive wall and exterior fire sprinklers.

### **3.9.3 Landscape Screening**

There are several areas that will require screening as shown in Figure 3-7. The first area is in the northeast corner of the project site between the Community Park and the Open Space (OS-2) area. The purpose of the screening is to minimize the visual impact of the offsite SDG&E substation and any future expansion for those facilities to the park users or the residential neighborhoods.

The second area of screening is in the northwest portion of the project site between the estate lots of San Miguel Ranch and the residential community of Bonita/Sunnyside, to provide a visual buffer to existing residents. In the same area, landscape screening will also be used along the west edge of the SR 125 right-of way.



Although SR 125 is below the residential area the screening will be used to minimize the presence of the toll road.

The third area is in the east subarea along the north side of Proctor Valley Road. Additional screening is to be provided in this area along the future school site and development areas of San Miguel Ranch across from the existing residents to help maintain the semi-rural character.

Screening is also shown along slopes adjacent to the SDG&E easement (E-1). It is recognized that the towers and lines within this easement cannot be screened from view of the adjacent residential areas, but plant materials and placement on the slopes adjacent to the easement should be used to “soften” the visual effect of these uses to the extent possible. To minimize fuel load, spacing of trees and tree-form shrubs should be separated to meet acceptable fire criteria. Screening may include one or more of the following techniques (see Figures 3-1 and 3-7).

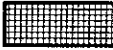


- Extend plantings beyond the limits of slope, where possible, to soften edges.
- To screen downhill views, place large shrubs at top of slope and low canopy trees at the toe of slope.
- To screen uphill views, place trees at top of slope and shrubs along base of slope.

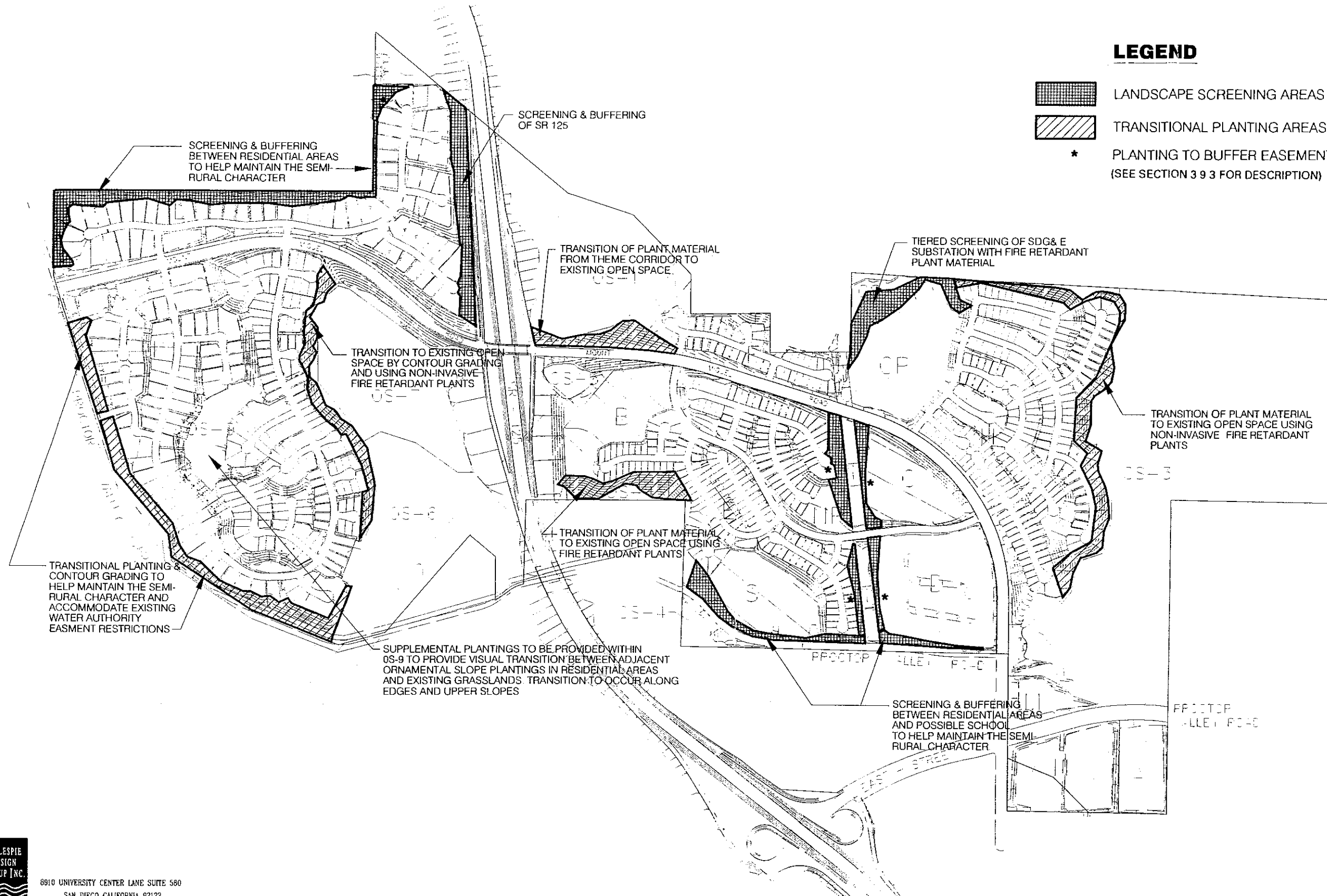
### ***3.10 Project Walls and Community Fencing***

Project walls and fencing will be an important design feature for unifying and identifying San Miguel Ranch. Fences and walls will be seen from outside and inside the project and are one of the first elements that help establish the quality of the project. The following are the design guidelines for fences and project walls.

- The material, style, and height of walls should be consistent throughout the community in order to ensure visual consistency and should be of a type that would reflect and enhance the natural character of the area.
- Fences along park and open space edges should be designed to allow for views.
- Walls utilized in design of entry monumentation at primary entries shall not exceed 3.5 feet in height, in order to maintain and enhance the semi-rural character by ensuring openness.
- Construction materials for walls shall be consistent with the project theme.

**LEGEND**

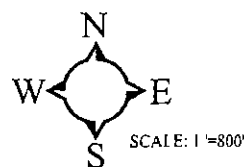
-  LANDSCAPE SCREENING AREAS
-  TRANSITIONAL PLANTING AREAS
-  PLANTING TO BUFFER EASEMENT USES  
(SEE SECTION 3 9 3 FOR DESCRIPTION)



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Figure 3-7

# San Miguel Ranch



## LANDSCAPE SCREENING AND TRANSITION PLAN

- The design and location of perimeter walls may require modification to comply with noise mitigation requirements.
- Plant materials shall be used to soften and cover continuous walls. Long linear walls should be staggered horizontally or utilize curvilinear forms to provide interest.
- Anti-graffiti coating shall be applied to perimeter walls as required by the City of Chula Vista.
- Fencing shall be used to discourage public access and domestic animal predation in sensitive habitat areas. The design and location of such fencing shall be determined by the project's Preserve Management Plan.
- All fences/walls in the public right-of-way or on HOA-maintained lots shall provide 3 feet of level area for maintenance purposes.
- All fencing/walls inside and adjacent to SDG&E's easements must be approved by SDG&E prior to construction. This includes the type and location of fencing and gates. The fencing and walls must be located 100 feet away on either side of steel towers and 50 feet away on either side of wood structures.

The project will consist of six types of walls and fencing. Their locations are shown on Figure 3-8 and some of the designs are illustrated on Figures 3-9 to 3-11.

#### ***Perimeter Wall***

The perimeter wall will occur in two styles. When it occurs along Mount Miguel Road at the primary and secondary entries, it will be a 6-foot high slump-block wall with stone pilasters flanking the entrances. The stone will be of earthtone shades to contrast with the wall. Where the perimeter wall occurs elsewhere on site, the 6-foot slump block wall will have matching slump block pilasters. In both cases, plant material will be used along the lengths of the walls to add interest and relief, and provide additional screening. All maintenance costs associated with these walls, such as removal of graffiti, will be born by the Homeowner's Association and/or the adjacent private property owner.

#### ***Community Fencing***

Community fencing will generally occur along all lot lines and will consist of timber privacy screens. In certain instances, it may be appropriate for this fencing to be placed on other than the lot lines. See Volume 2, PC District Regulations, Section 2.6E for further criteria regarding fencing. All maintenance costs associated with these walls, such as removal of graffiti, will be born by the Homeowner's Association and/or the adjacent private property owner.

***View Fencing***

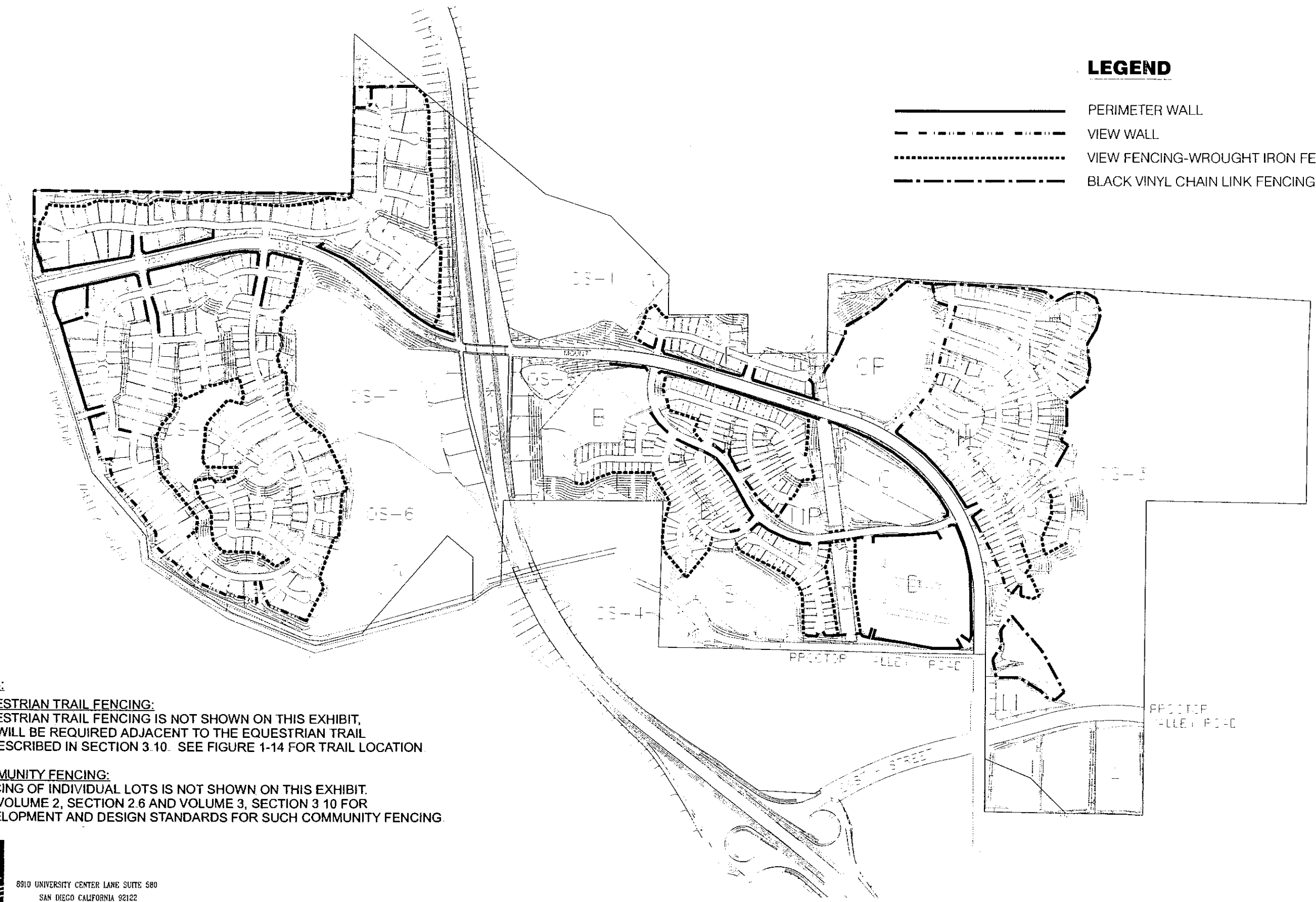
Walls along the boundary of view lots, adjacent to open space lots or easements will be of the view fencing design. These walls consist of a 2 ½-foot slump block wall topped by 3½ feet of iron fencing. Slump block pilasters matching the perimeter wall will be located at the intersection of each property line. All maintenance costs associated with these walls, such as removal of graffiti, will be born by the Homeowner's Association and/or the adjacent private property owner.

***Trail Fencing***

Rustic trail fencing will occur along the equestrian trail. It will also be used along those parts of the multi-purpose trail where the adjoining down-slope is 5 feet or greater within 5 feet of either side of the trail. The fence construction will consist of a simple, timber post and rail design in compliance with City design standards. This fencing will also be used between the equestrian trail and pedestrian walkway where these two coincide (portions of Proctor Valley Road and Mt. Miguel Road) to provide separation of the use areas.

***Chain Link Fencing***

Black, vinyl-coated chain link is proposed around the detention basins and along the north edge of Neighborhood "L." This fencing may also be required along the west edge of the community park, with the final decision to be at the discretion of the Building and Planning Department.



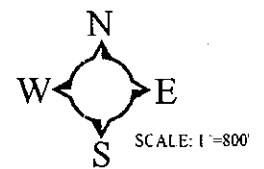
**LEGEND**

- PERIMETER WALL
- - - - - VIEW WALL
- ..... VIEW FENCING-WROUGHT IRON FENCING
- · - · - · BLACK VINYL CHAIN LINK FENCING

**NOTES:**

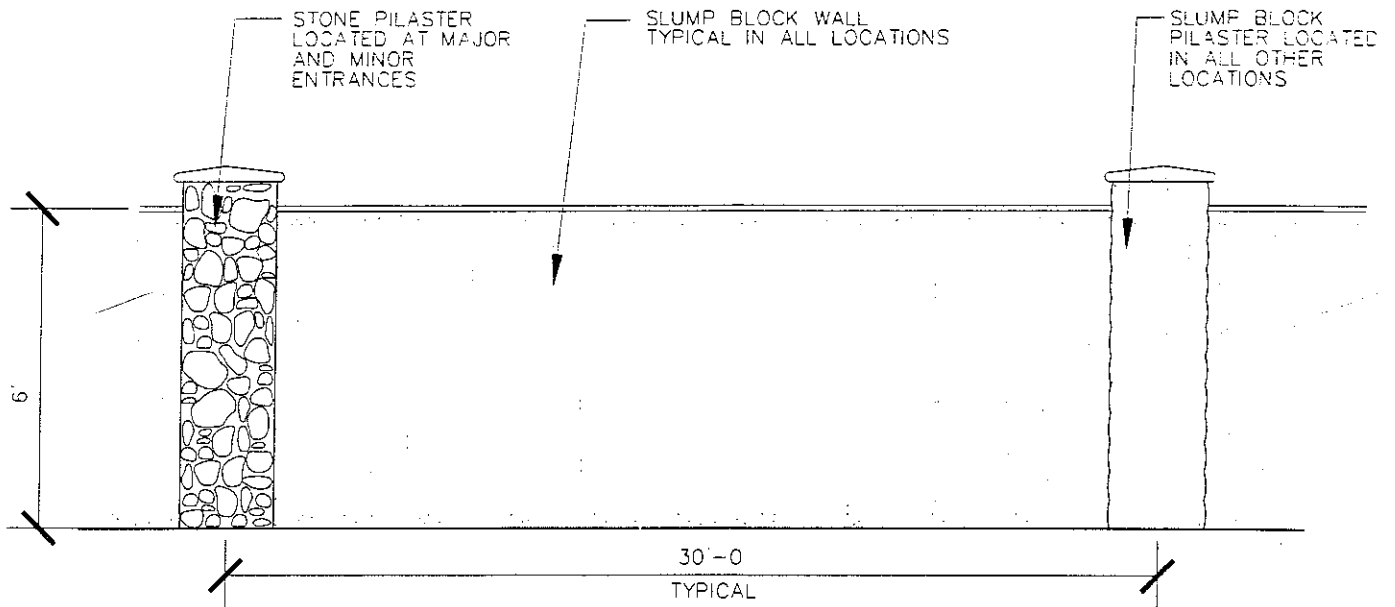
1. **EQUESTRIAN TRAIL FENCING:**  
EQUESTRIAN TRAIL FENCING IS NOT SHOWN ON THIS EXHIBIT, BUT WILL BE REQUIRED ADJACENT TO THE EQUESTRIAN TRAIL AS DESCRIBED IN SECTION 3.10. SEE FIGURE 1-14 FOR TRAIL LOCATION.
2. **COMMUNITY FENCING:**  
FENCING OF INDIVIDUAL LOTS IS NOT SHOWN ON THIS EXHIBIT. SEE VOLUME 2, SECTION 2.6 AND VOLUME 3, SECTION 3.10 FOR DEVELOPMENT AND DESIGN STANDARDS FOR SUCH COMMUNITY FENCING.

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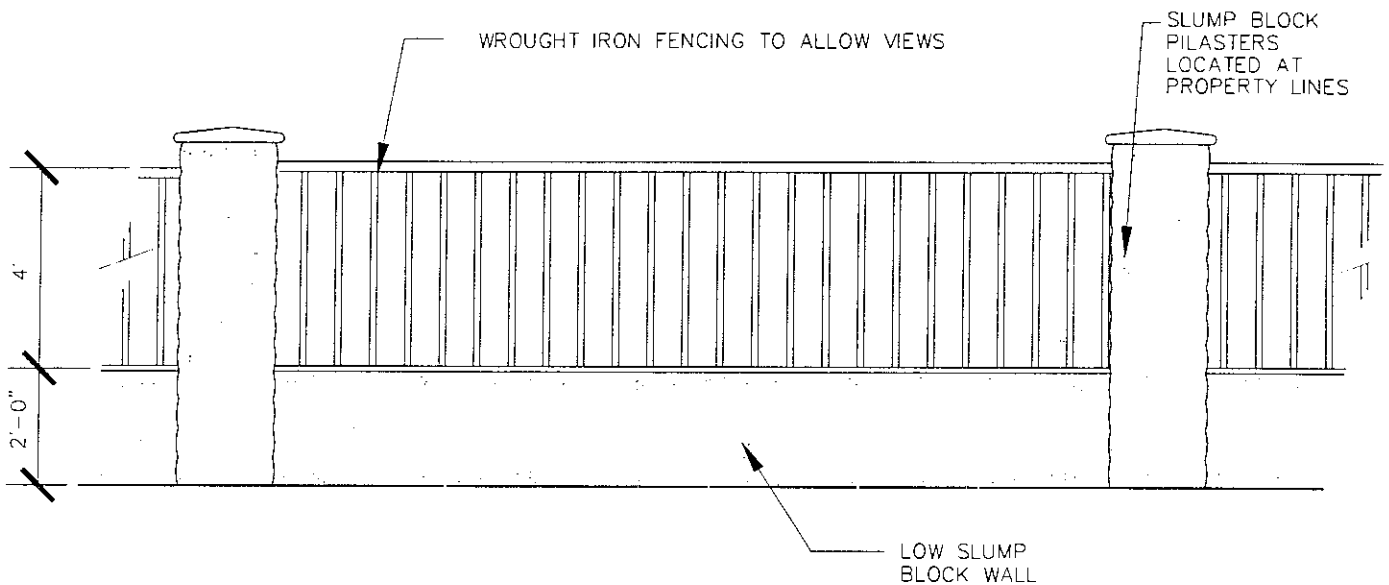


# San Miguel Ranch

Figure 3-8



6' HIGH DECORATIVE PERIMETER WALL



6' VIEW WALL



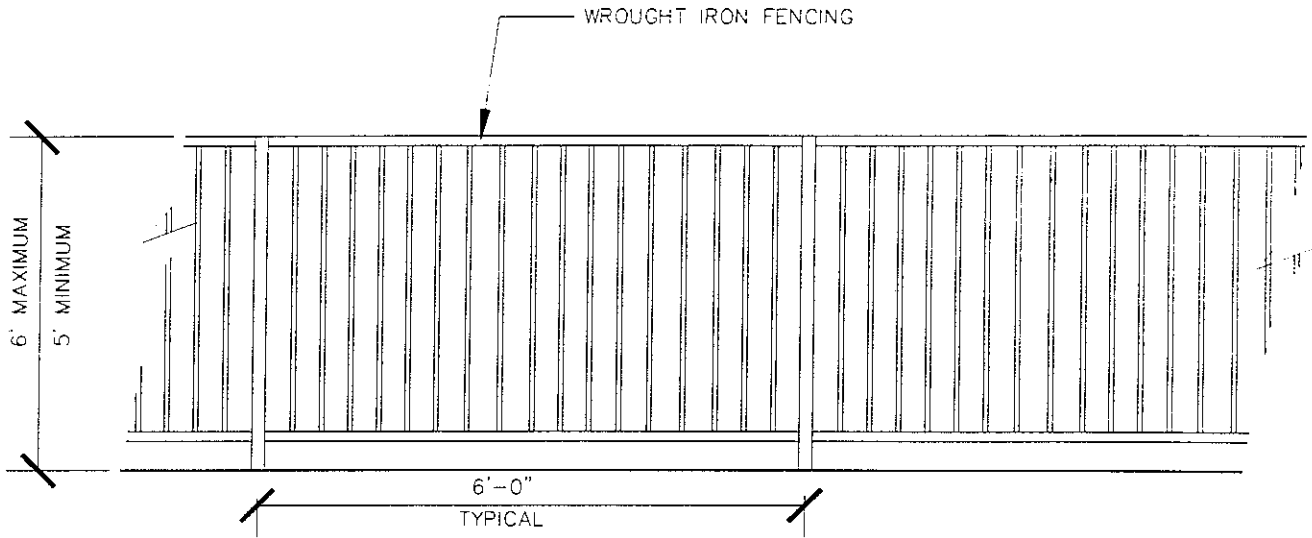
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NTS

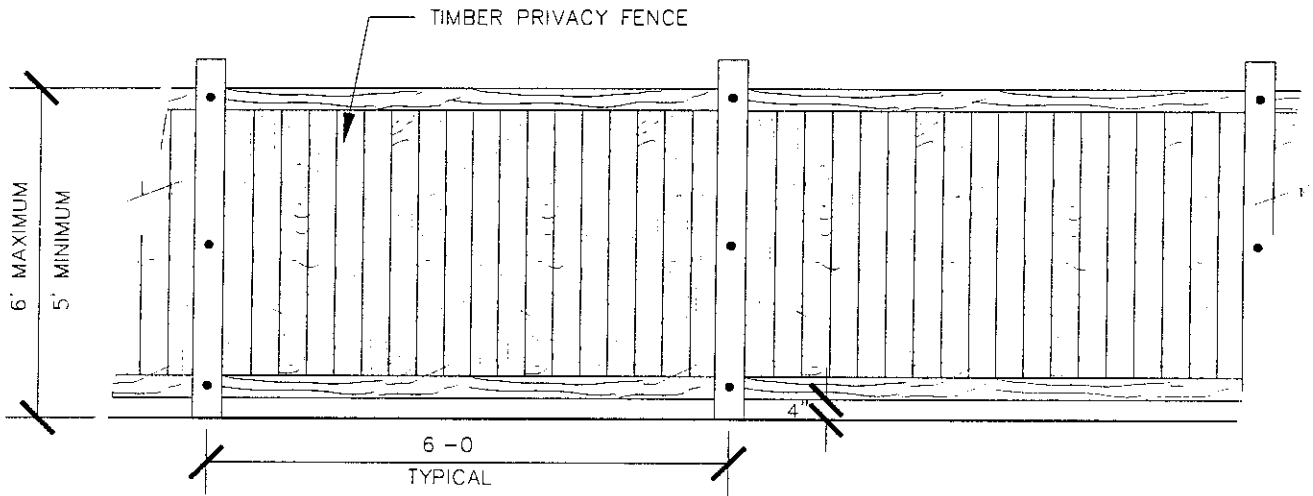
Figure 3-9

# San Miguel Ranch

FENCING  
 TYPES  
 VOL 3 Page 39



VIEW FENCE



COMMUNITY FENCE

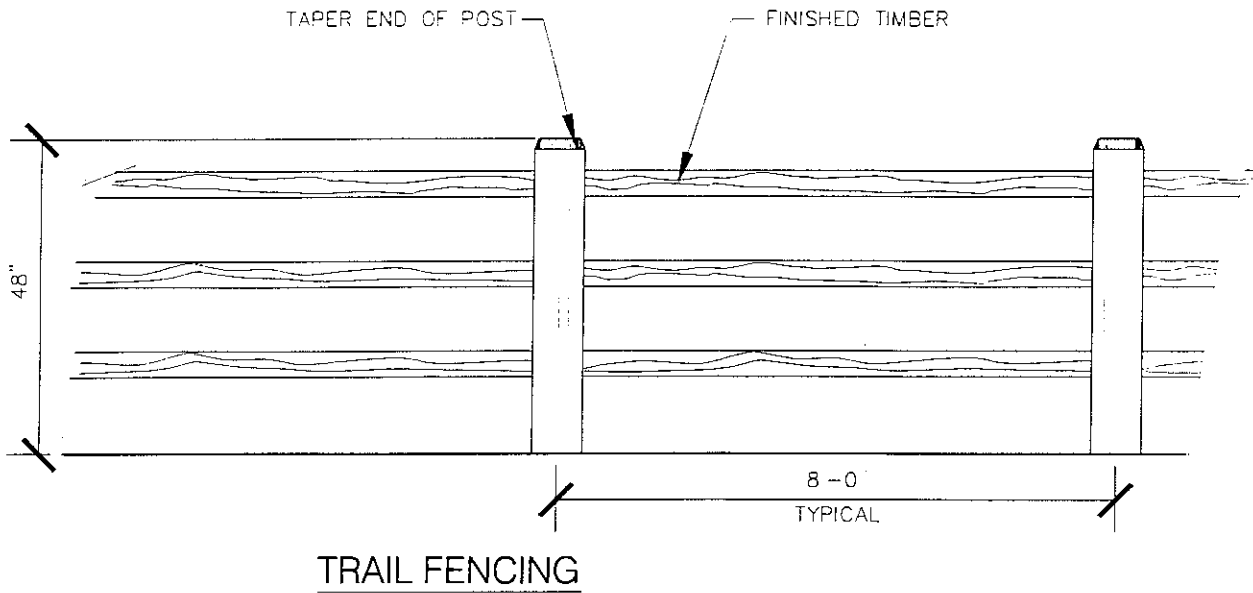


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Figure 3-10

# San Miguel Ranch



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NTS.

Figure 3-11

# San Miguel Ranch

## FENCING TYPES



### 3.11 Lighting

Lighting is one of the key design elements for any community. Proper lighting will provide directional orientation, accent illumination and provide nighttime safety for vehicles and pedestrians. A unified lighting concept will be used throughout private areas of the community and for public streets. The following guidelines for lighting will apply.

- Light pole and fixtures shall be the City of Chula Vista's standard. Their location and spacing will be per the City's standards.
- Pedestrian lighting will be provided as necessary in the parks, community service and retail centers to add security and deter graffiti. Light fixtures shall be pedestrian in scale and integrated with the surrounding architectural character.
- Spotlights should be used to illuminate signage.
- Accent lighting should be used at primary and secondary entries to accent trees and other sculptural landscape features. Generally, accent lighting should be soft, minimal, indirect and low voltage.
- Adequate lighting shall be provided in parking lots and will be directed and shielded as necessary to avoid "spill-over" into residential areas.
- The community park is expected to receive sports and pedestrian lighting, for night practices and games. The final decision on the ultimate park design will be consistent with the City-wide Parks Master Plan and the Master Plan for the San Miguel Ranch community park.
- Lighting restrictions may be applied to the residential areas adjacent to MSCP habitat areas (OS-1, OS-6, OS-7 and OS-3) to avoid any light spill into sensitive habitats.

### 3.12 Signage

Signage is critical in identifying and providing direction through a community. A unified system of signs that complement the local environment and reflect the semi-rural design theme shall be used throughout San Miguel Ranch. Sign size, quantity and locations within the community should be coordinated to provide project unity and a clear identity for San Miguel Ranch. This system would affect all signs including, but not limited to:

- Community Entry Signs
- Neighborhood Identification Signs
- Commercial/Service Signs
- Street Signs and Community Directional Signs
- Public Use Signs
- Preserve Signs

Signage within San Miguel Ranch shall generally be residentially oriented. The following general design guidelines shall apply to all signage.

- All signs shall conform with the signage regulations of the PC District Regulations contained in Volume 2, Chapter VIII of this SPA Plan, and the relevant sections of the City of Chula Vista Zoning Ordinance standards which regulate signage design and construction.
- Materials and colors for signs should be consistent with the architectural materials and color schemes used within the project.
- Information should be located on a single sign rather than using multiple signs.
- Generally, signs should be simple in form and shape to minimize visual impacts.
- Sign design and location shall not obstruct sight distance for vehicles, bicycles or pedestrians.
- Signs such as directional, trail, biking or parking should use graphic symbols in lieu of, or in addition to, text wherever possible.
- Externally illuminated signs are preferred. Illumination should be limited to the sign only, should not reflect directly upward or spill over onto an adjacent property, building or suite.
- Signs should have a good design relationship to the use they identify and adequate spacing should be provided between signs and buildings

- Signs should be well located and take into account the function and use of adjacent areas.
- Signs are encouraged to provide a desirable visual character which has a minimum of clutter, and is compatible with the desired semi-rural character of the residential areas in San Miguel Ranch.
- Signage should enhance the economic value of the community and each development area, through the regulation of such elements as size, number, location, design and illumination of signs.

#### ***Community Entry Signs***

- Entry signs will be located on the monument walls located on either side of Mount Miguel Road at both the west and south entries.
- The lettering shall be raised “hand-written” style of a metal such as copper or wrought iron.
- The San Miguel Ranch logo shall occur on all community entry signs.
- The lettering should be of a design standard and quality that will represent an established San Miguel Ranch.

#### ***Neighborhood Identification Signs***

- Lettering style and material should be “hand-written” and a metal material to match the entry signage.
- Lettering size should be limited to be in keeping with the neighborhood character.
- The San Miguel Ranch logo shall be incorporated into all neighborhood signs.

#### ***Commercial and Service Signs***

- The primary commercial identification signage is to be located at the southeast corner of H Street and Mount Miguel Road.
- Supplemental signage may be located at the entry drives to sites M and N upon the approval of the property owners of the commercial lots and community purpose facility sites in San Miguel Ranch and Rolling Hills Ranch.
- Commercial and Service sign design proposals are to be approved by the commercial site property owners of San Miguel Ranch and Rolling Hills.

- Preferred signage types for tenant identification in the commercial area includes monument, wall, and hanging under-canopy signs.
- Commercial identification monument signs should be integrated into the landscaped area design.

#### ***Street Signs and Community Directional Signs***

- Community directional signs should be harmonious with the character and image of the residential community in terms of size, color and materials.
- All street name signs will meet the City standards.
- All signs should be designed and located in a manner that does not disturb the scenic values of the community.
- Directional signs should be designed in such a manner as to provide information in a symbolic format whenever possible.

#### ***Recreational or Park Signs***

- Community Park signage is to be regulated by the San Miguel Ranch Community Park Master Plan, and must meet the requirements of the Planning and Building Department. Materials and style should also reflect the overall community theme and provide longevity as required by the City.
- The Neighborhood Park signage style and materials shall reflect the overall community theme. The scale of these components shall be sized to be appropriate within the landscape.
- A signage program shall be developed for each park site based on the specific facilities included in each park. All areas that are designed or used as handicap accessible shall be identified as such as required by A.D.A. Other

signage aspects shall include:

- Handicapped Parking
- Park Rules and Regulations
- No Parking (Red Curb)
- Court Regulations ( if applicable)

#### ***Trail Signs***

- City trails signage shall use the City standard signage for the specific trail type. Trail signage shall be located at the beginning, end and as required by Caltrans standards not to exceed five hundred (500) feet in distance.
- Community trails signage shall be similar in style to city trail signage, constructed of natural materials, and showing the community logo. Trail

identification signs shall be located at the entrance to each trail and shall not exceed 42 inches in height.

***Preserve Signage***

- Signage shall occur at the end of each adjacent cul-de-sac in neighborhoods J and F as recommended by the resource agencies and at key points surrounding the preserve as approved by the relevant agencies.
- Preserve signage will be similar in style to standard Caltrans road signs, constructed of sheet metal with a silk screen applique. The vocabulary should include, but not be limited to: identification of the area as a natural preserve; identification of the preserve owner; “no trespassing” statement, indicating that access is prohibited without authorization from the owner.

**3.13 Landscape Irrigation Standards**

Landscape and irrigation installation shall conform to the City of Chula Vista Landscape Manual. Standard details will be followed to assure uniformity and a high quality of materials and workmanship. Materials and equipment shall be standardized for ease of maintenance and storage. The following general irrigation concepts shall be considered in the design and installation of irrigation systems in San Miguel Ranch.

- Sprinkler systems shall be circuited according to the following criteria:
  - To provide 100 percent coverage;
  - Top, toe and center of slope;
  - Contour along slope, when possible;
  - North and east, and south and west exposures shall be separately circuited;
  - To allow for the separation of plant materials with different water requirements;
  - Root depth zone.
- Irrigation shall be permanent, below ground, and automatically controlled for adequate establishment of plant material. Temporary irrigation may be proposed in certain situations, but it must be approved by the Planning and Building Department. These systems shall be installed as soon as possible after grading, and prior to amending soils, plant installation, or any hydroseeding.
- Pop-up operation type sprinkler heads shall be used adjacent to all walks, drives, curbs, parking areas and public rights-of-way to avoid breakage and reduce maintenance costs.

- Irrigation sprinkler heads used to water slopes shall have application rates which reduce the amount of run-off and shall be of a type, such as stream rotors, which do not apply water in a fixed, steady stream.
- Sprinklers with proper nozzles shall be selected to compatibly provide water to their landscape. Soil information shall be obtained prior to the design of any irrigation system.
- As it becomes available, recycled water is proposed to be used for all manufactured slopes, parks and public rights-of-way including landscape buffer easements. See Figure 3-12.
- Water conservation is of importance in San Miguel Ranch. As the design of areas finalize, appropriate measures will be taken to ensure proper irrigation techniques are used to maximize water efficiency.
- Irrigation systems for planting within the SDG&E easements are subject to approval by SDG&E, and typically shall be located 100 feet away from either side of steel towers, and 50 feet away from either side of wood structures. If irrigation piping within easements must cross SDG&E access roads, a 2-foot deep conduit inclosed in concrete must be used to avoid conflicts with SDG&E's vehicles.

### ***3.14 Landscape Maintenance Standards***

The developer will be responsible for landscape maintenance during project implementation. Ultimate responsibility for maintenance will be with individual private property owners, Homeowners Associations and public agencies. An overview of the division of maintenance responsibilities is shown on Figure 3-13. Definition of these responsibilities will occur during the subdivision review process. The following summarizes how landscape maintenance responsibilities are intended to be divided within San Miguel Ranch.

#### ***Individual Private Property Owner Maintenance***

The individual property owner will be responsible for maintaining landscaping within privately owned areas, such as individual residential lots.

#### ***Homeowners Association***

The majority of landscape maintenance responsibility will be with the Homeowners Association or Community Facilities District. These associations will maintain all landscape areas not maintained by the private property owner or a public agency. Such areas will include all common areas, common open space, private parks, entry landscaping, walls facing the public right-of-way, trails which are composed of stabilized decomposed granite and all trails and landscape improvements within SDG&E easements. Certain public landscaped areas may also be included, as

determined by the Director of Public Works, such as landscaping of detention basins, and enhanced median and parkway landscaping in the public right-of-way.

***Public Agency Maintenance***

Public agencies will be responsible for maintaining the landscaping on publicly owned land. These areas include landscaping within street and highway rights-of-way (unless maintained by a homeowners association or a community facilities district), public parks, schools, SDG&E utility easements and other similar public lands.

***Public Works Department***

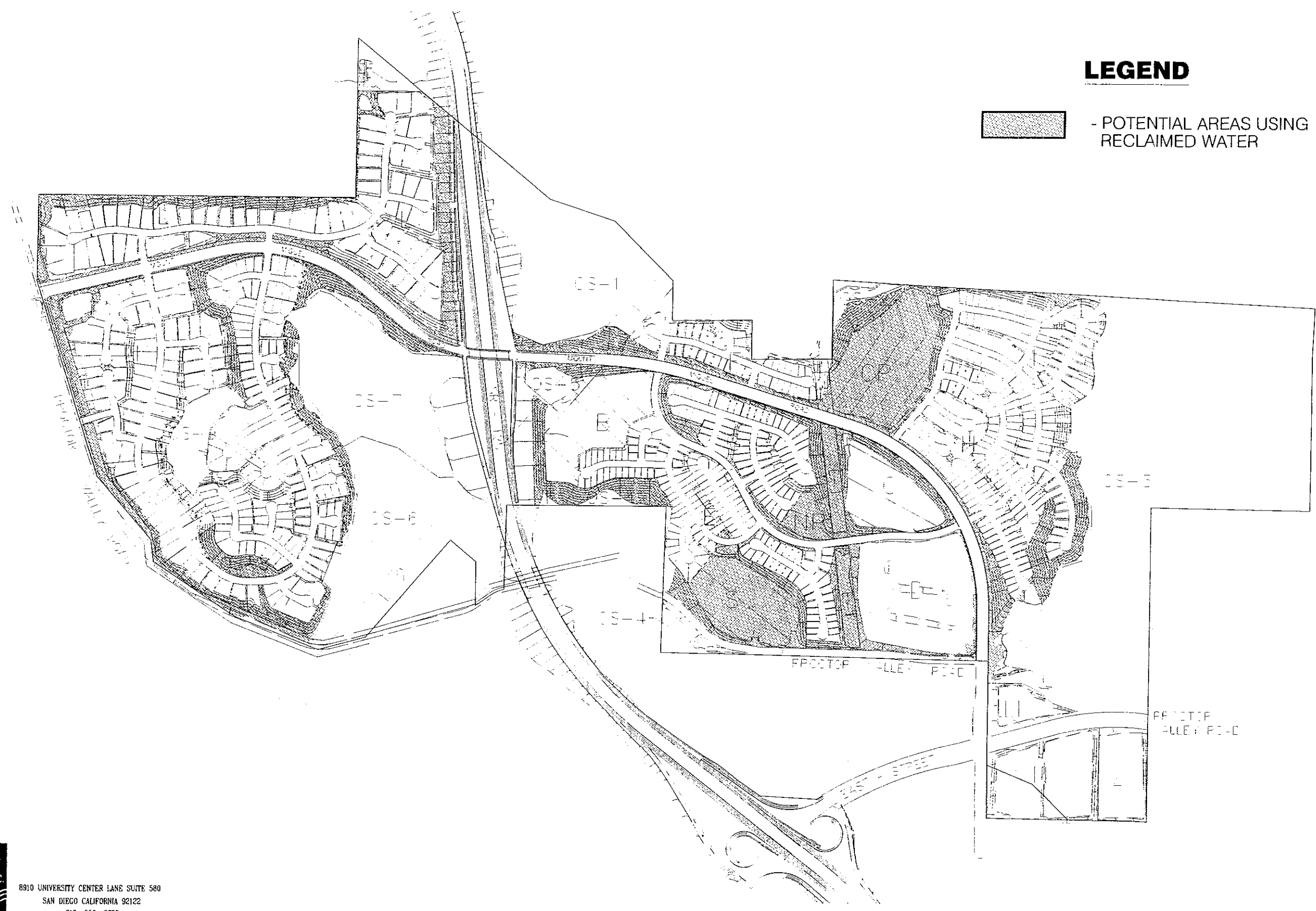
Streets, walks and trails which are located on public land and drainage structures other than those designed as swales or brow ditches will be the maintenance responsibility of the Public Works Department (unless maintained by a homeowners association or through a community facilities district).

***Open Space Maintenance District/Multi-Species Conservation Program***

The maintenance of the Otay Tarplant Preserves and other natural open space within San Miguel Ranch is still under discussion with the State and Federal resource agencies. The structure of the land ownership and maintenance responsibilities is being addressed in conjunction with the mitigation/preservation plan, and will be finalized as part of that plan.

**LEGEND**

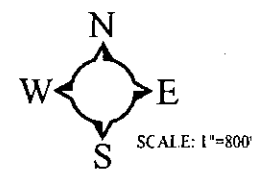
 - POTENTIAL AREAS USING RECLAIMED WATER



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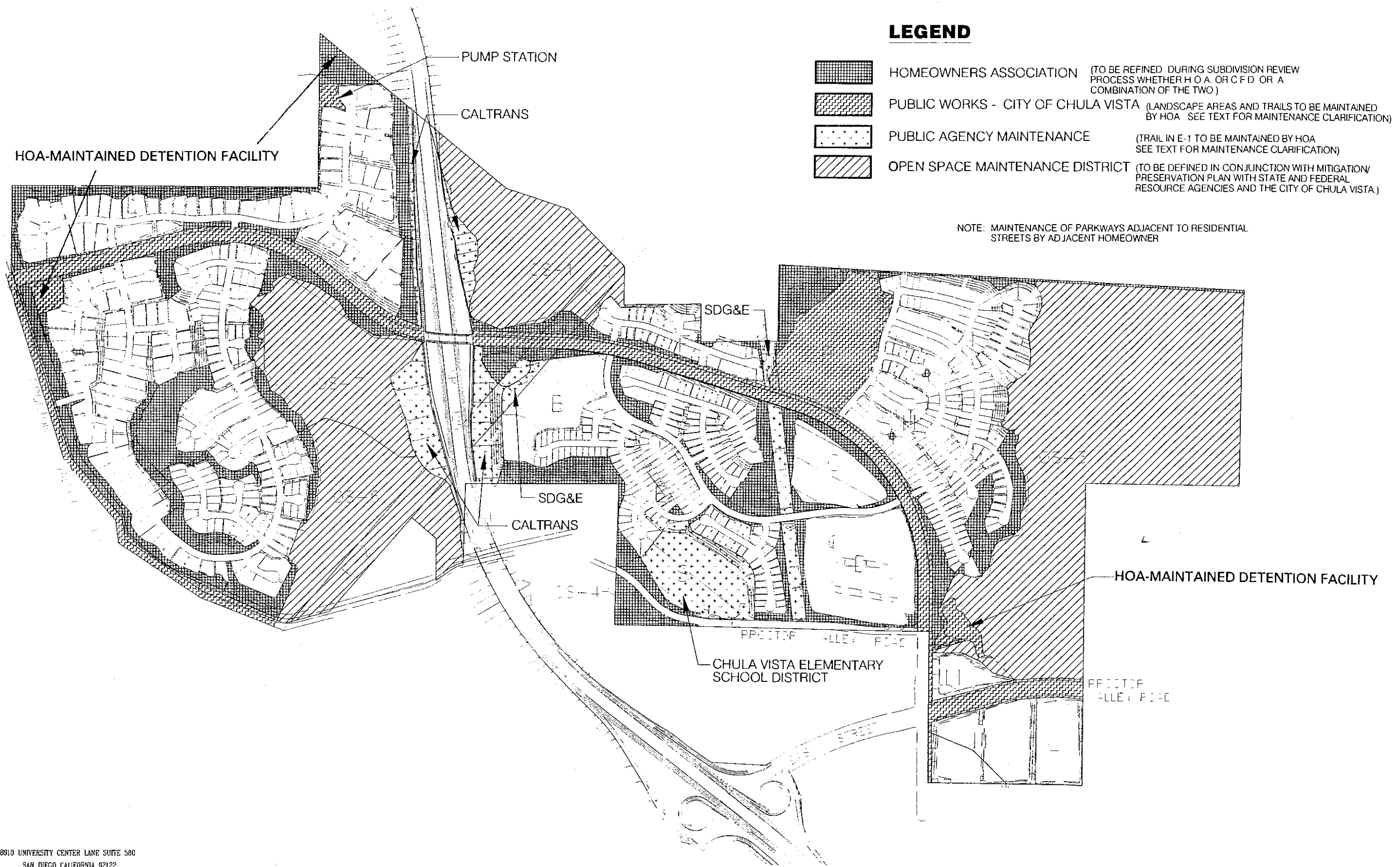
Figure 3-12

**San Miguel Ranch**



**POTENTIAL RECYCLED WATER USE AREA PLAN**  
 VOL 3 Page 49

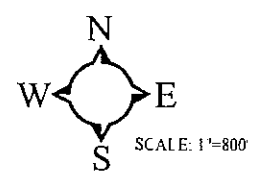




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Figure 3-13

# San Miguel Ranch



# CHAPTER IV

## ARCHITECTURAL DESIGN STANDARDS

### ***4.1 Introduction to Design Standards and Requirements***

The purpose of these Design Standards is to provide a frame of reference. As with other Design Standards, the descriptions of architectural styles and statements of philosophy are not intended to unreasonably restrict creative design, but rather to assist in the implementation of a strong, consistent design direction and level of quality.

If a proposal is not covered in the Design Standards, the applicant should contact Trimark Pacific Homes or their successors and assigns in interest ("Master Developer") for clarification. The Master Developer has the responsibility for interpretation, using the intent of these Design Standards as provided herein. The Master Developer will make final decisions regarding the approval of plans.

In addition to the requirements included herein all improvements shall conform to all appropriate city, state and federal building requirements. The Air Quality Improvement Plan for San Miguel Ranch identifies a number of items which can assist in limiting the air quality impacts associated with development. Those measures specifically related to design of development projects are included in Section 4.8.

Any condition or material not defined in these Design Standards will become a matter of discretionary judgment by The Master Developer and will be governed by the provisions of Title 19 of the Chula Vista Municipal Code.

### ***4.2 Residential Architecture - Design Character and Style***

The purpose of this section is to provide a frame of reference for property owners, architects, engineers, contractors and The Master Developer in preparing, reviewing and building homes within San Miguel Ranch.

These Design Standards are intended to encourage a collection of individually outstanding, yet not overstated homes, which will produce an equally outstanding community environment. Additional design guidelines for single-family, multi-family and commercial development are included in Sections 4.5, 4.6 and 4.7 of this Chapter.

Care and consideration should be taken in the selection of distinctive elements, materials, textures and colors to ensure the standard of quality that is necessary for a community to endure.

### ***Excessive Use of Distinctive Elements***

Distinctive elements such as towers, the use of curves in plan and facade, large window areas, etc., can be used in a very positive way to draw attention to or make more important one part of the building. However, the excessive use of these elements, which would result in an overstated or contrived style, is not acceptable.

### ***Materials, Textures and Colors***

Materials should be carefully chosen to be consistent with the proposed architectural style. Where stucco, cast concrete or other similar finish is used, it should be smooth or lightly textured with clean lines. The Master Developer may approve other textures, details and colors where they can be found to be consistent with the intent of these Design Standards. Materials, textures and colors of accessory structures must be consistent with or complementary to those of the primary structure.

### ***Roofs and Eaves***

The Master Developer will carefully review roof configurations in accordance with this section and the requirement of Section 4.5. Pitched roofs need not necessarily employ symmetrical gables. Mansard roofs will not be allowed. Parapets used for the entire roof will not be allowed, however, if used as a detail to enhance the architectural vocabulary, the Master Developer would consider it.

Roofs must be of a natural material such as clay tile or slate, or of concrete shingles or tiles. A variety of roof colors and tile designs, i.e. "S" tile, flat tile etc. are encouraged. Clay and concrete roofs which are flashed or colored must be done by a fire process or integral mix rather than paint applied.

Flat roofs will only be acceptable where they are an integral part of an acceptable architectural style and design vocabulary. Flat roofs proposed for other non-aesthetic reasons (such as cost savings, maximizing interior volume, and roof height limitations) will not be acceptable. Flat roofs are permitted only up to 20% of the area of the roof, if justification is accepted by review of the Master Developer.

Where approved flat roofs are utilized; they must be finished with materials and quality, which present a pleasing and attractive appearance from properties which overlook the roof. The Master Developer may impose conditions on the finishing and details of flat roofs which significantly exceed the customary requirements of similar installations where appearance and design compatibility are less significant.

All roofs shall be kept free of equipment or projections. Any extensions or equipment above the roof should be integrated into the building architecture. Roof/eave design of accessory structures must be consistent with or complementary to the primary structure.

### ***Skylights***

Skylights shall be integrated into the building form and structure. Preformed skylights must be of low profile with all metallic surfaces painted, anodized or otherwise treated to be nonreflective. They shall be finished with colors selected to blend with the adjacent roofing material.

### ***Exterior Windows and Doors***

Shall be consistent with the architecture. Low E or reflective glass will not be allowed.

### ***Garage Doors***

All garages must be fully enclosed and have automatic garage door openers. Strongly applied patterns of moldings and/or color are not permitted. Roll-up garage doors are encouraged, and will be required where any garage is less than 20 feet from the back of sidewalk.

### ***Chimneys***

Of approved exterior materials may not exceed the height required by the City of Chula Vista. Exposed metal flues must be contained within approved spark arresters, which enhance the architectural integrity of the structure.

### ***Gutters and Downspouts***

Exposed gutters are to be colored to match the surface they are attached to unless copper is used.

## **4.3 *San Miguel Ranch Architectural Styles***

In keeping with the orientation of San Miguel Ranch community, contained in this section is a narrative overview of many of the key characteristics of three representative architectural styles which shall be encouraged within the neighborhoods of the San Miguel Ranch community. These generic "theme styles" include:

- Spanish/Mediterranean
- Monterey
- California Ranch/Hacienda

Each of these styles is identified with a special period in history reflecting a unique lifestyle and architectural characteristics. Over the course of time, these "classical" styles have evolved into contemporary art forms. Additionally, in keeping with the orientation of this community, these styles incorporate some elements of informality and "human scale" appropriate to a residential environment.

Within San Miguel Ranch, the architectural forms should include adaptations of these regionally historic architectural styles, yet also respond to contemporary concerns of function and individual expression. These styles are complementary and can be intermixed within a neighborhood to provide a variety of architecture, or can be used individually within a single neighborhood.

### ***4.3.1 Spanish/Mediterranean***

Unique to Southern California, Spanish/Mediterranean architecture was introduced at the 1915 San Diego Exposition. Key features were adopted from various related styles of Italian, Spanish, Moorish and Mexican origins (Figure 3-14).

As popularized over the years, this style of architecture is almost always informally organized, often with a central courtyard as the focal point. The "front" of the home is generally more simple and austere portrayed than the rear elevations. In addition to relating well to Southern California's climate, the simple but varied forms of Spanish/Mediterranean architecture easily adapt to changes in topography and to view requirements.

#### ***Form***

Distinguished by simple and strong configurations Spanish/Mediterranean homes are typically either of one or two stories, topped by tile roofs with a 4-in-12 pitch. Tiles wrapped around the roof's edge or cornices may be used in lieu of eaves or overhanging roof lines. Either attached or detached garages display multiple openings and similar roof lines. Courtyards or patios are often integrated into the design. Mass predominates over the openings in this architectural style, which conveys an impressive sense of substance.

#### ***Material and Color***

Off-white or beige stucco with little or no texturing is most often used for the exterior as well as, sometimes, for the interior walls. Barrel rather than flat tiles are preferred for the roofs. Accent colors are frequently brilliant shades of blue, ochre and red. Wrought iron or wood may be introduced in the window grates and balconies. Awnings may also be used for sun control.

#### ***Details***

Although there is limited use of arches in Spanish/Mediterranean architecture, the openings for the doors and windows are often deep set, providing excellent shading. Stucco-patterned and wrought iron window grills exemplify this style, but their use is normally limited to lower floors for accent or as a security measure. On the upper floors, the windows may feature shallow balconies with wrought iron railings or plaster half-walls. Other forms of window ornamentation include tile or plaster surrounds and/or hooded pediments. Bay windows are also used occasionally.

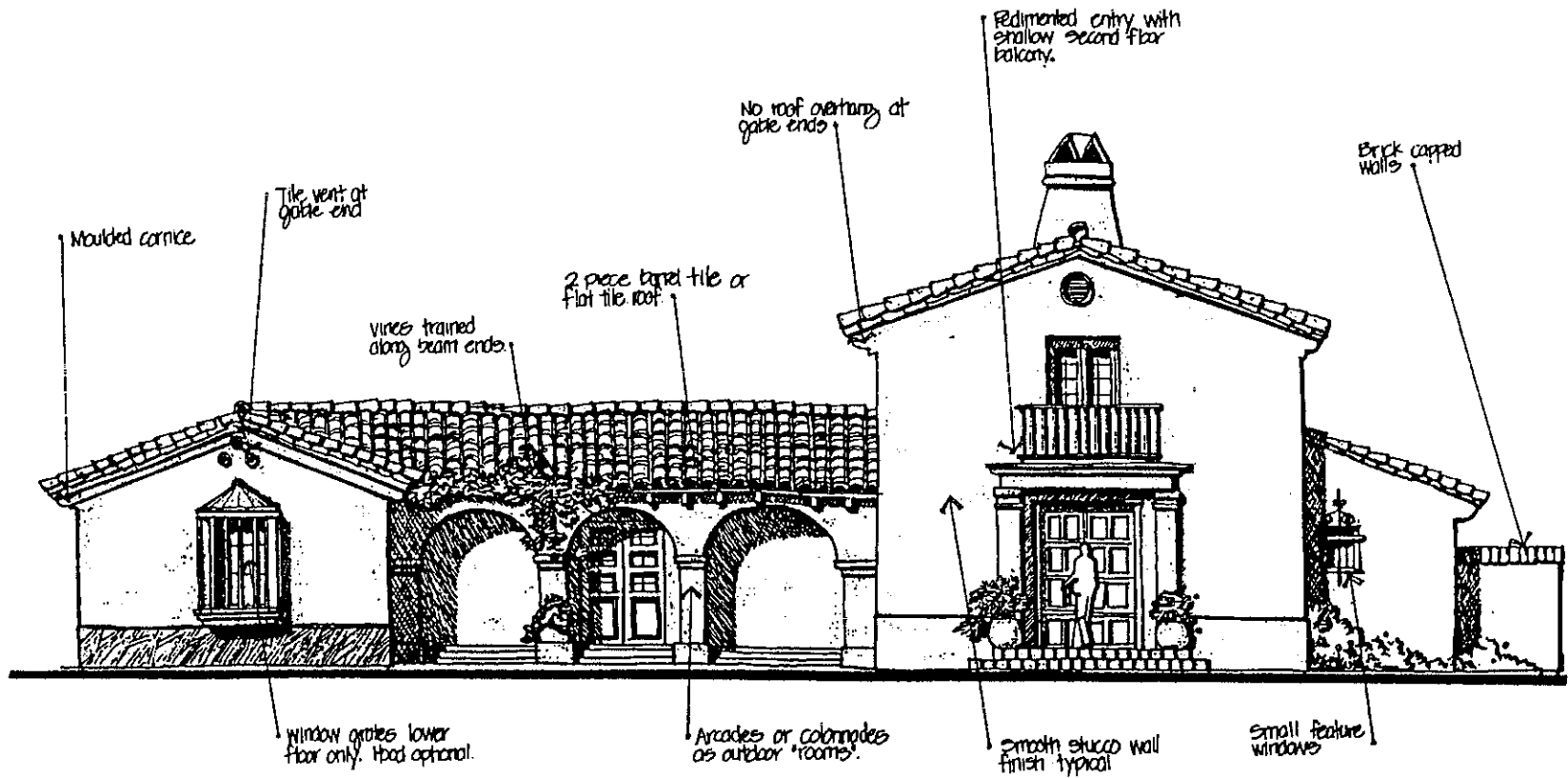


Figure 3-14

# San Miguel Ranch

## SPANISH/MEDITERRANEAN ARCHITECTURAL FEATURES

Doors are a major architectural statement and, as a result, are traditionally more ornate and highly detailed. They provide an opportunity to create contrast with broad expanse of the plain stucco exteriors. Detailing around the doors may involve tiles, color accents or such architectural features as pediments, molding or a small roof for weather protection. Detached garages will often be connected to the home by distinctive arcades or colonnades.

### **4.3.2 Monterey**

Drawing upon the elegant detailing and interior features of Eastern Colonial homes and the simple lines of Spanish styling, Monterey architecture exemplifies the blending of diverse traditions to create a home that truly adapts to California coastal living (Figure 3-15).

Early Monterey building forms, utilizing local adobe materials along with New England construction methods introduced by whalers and settlers arriving upon these Western shores, were very simple and straightforward.

Popularized in the 1930's, the simple elegance of these initial prototypes was retained, while refinements and design details were added.

For those who desire the formal elegance of Colonial styling, Monterey architecture provides the perfect combination of simplicity and formality appropriate to homes to be built in coastal settings.

This style of architecture is so named for the picturesque city in which the first home of this kind was built. The year was 1835 and the city was Monterey, California, where the Larkin House still stands.

#### ***Form***

Simple, two-story volumes, topped by gently sloping 4-in-12 pitched roofs typify Monterey architecture. Most noteworthy of this style are the second floor balconies which extend across the front of the home and the recessed entryways. A sweeping circular driveway or motor court often serves to enhance the formality of this style.

#### ***Materials and Color***

Frequently a contrast in building materials differentiates the first story from the second. This contrast might take the form of either masonry on the first floor with plaster on the second or smooth stucco on the first with board and batten siding on the second. Most often the entire exterior is painted a solid white or beige with accent colors added around the doors and windows. If the same building materials are selected for both stories, then a subtle color difference may be chosen for the lower and upper levels. Very little, if any, texturing is used for the stucco, wood and roof materials, which are normally concrete shingle or clay or concrete tile.

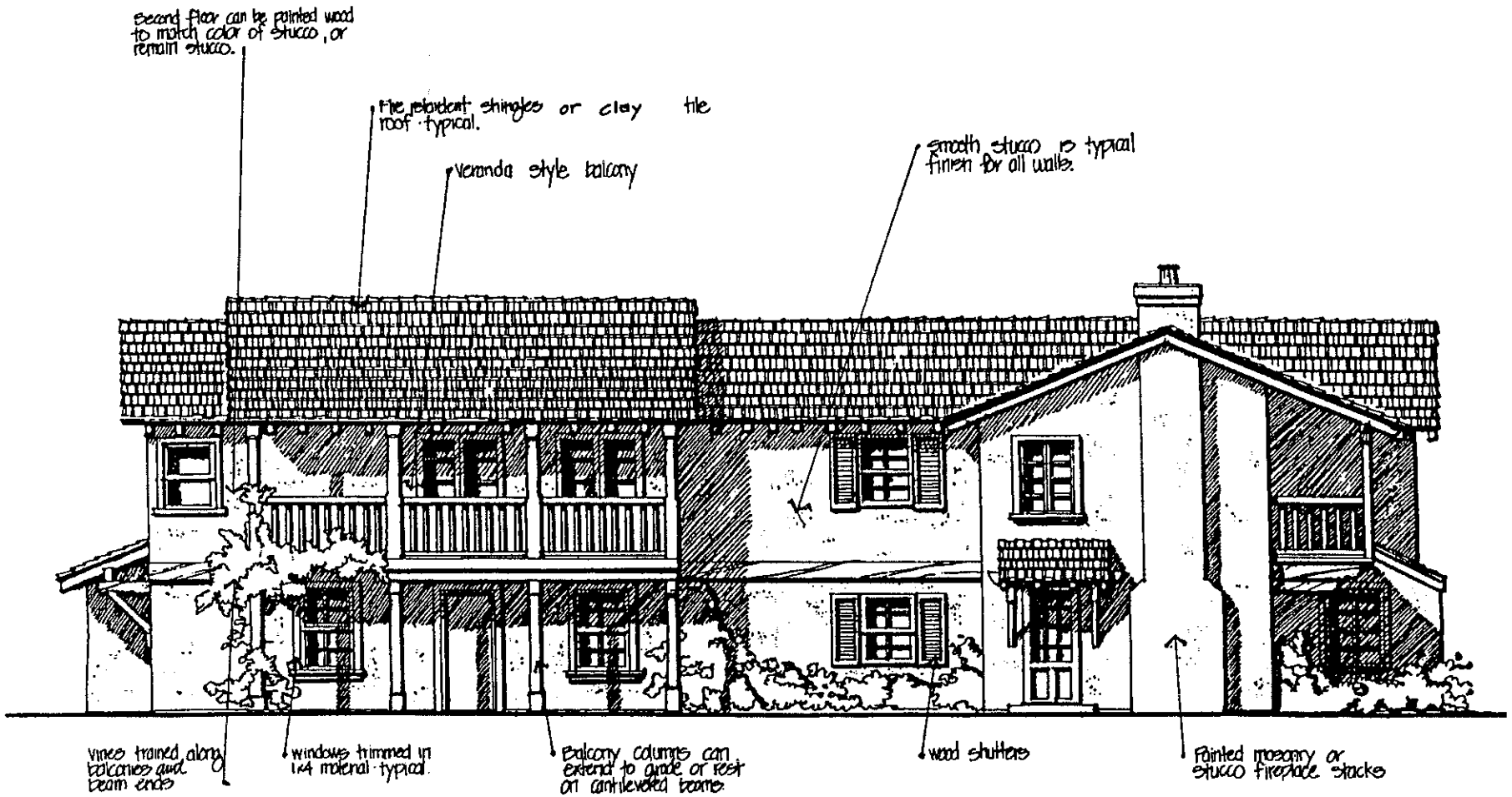


Figure 3-15

# San Miguel Ranch

## MONTEREY ARCHITECTURAL FEATURES



### *Details*

To relieve the austerity of the Monterey lines, the detailing is almost entirely Colonial. This is particularly important around the doorways and windows. Pediments or covered porches shade the recessed entries which are normally single or narrow double doors showcased by sidelight or transom windows. Almost always, these doorways are also paneled for an additional effect.

Generally the windows also reflect the formality of the Colonial architecture. Characteristically, they are deep set and trimmed with wood and sometimes incorporate pediments above or shutters to each side. Double hung windows with multiple panes are usually preferred, although casement windows may be used. Even fixed windows in this style will often feature infills.

Balconies, balustrades and railings are always of wood, perhaps with special beam end detailing and doubled beaming under the porch supports. Carved corbels for the balcony railings, the porch supports or pediments are also characteristic of the Colonial displayed in Monterey architecture.

### *4.3.3 California Ranch/Hacienda*

The California Ranch house was adapted from early Southern California adobes, popularized by Cliff May. It uses simple, single-story forms. The Hacienda style was also adapted from the early California and Mexican adobes, but was adapted with some "Colonial" styles in Monterey (Figure 3-16).

#### *Form*

Distinguished by simple, but strong configurations, California Ranch/Hacienda homes are generally informal plans organized around a courtyard or patio. Predominately single-story, although two-story elements can be used, typically with the appearance of thick walls. Roofs are typically built with 4-in-12 roof pitches of tile. Roof forms may be of hip or gable configurations. Roof overhangs are typically generous and can extend into verandahs and covered patios. Automobile courts and a simple entrance contrast with a more elaborate verandah or loggia to the rear.

#### *Material and Color*

Off-white, beige stucco, and deeper earth tones with little or no texturing is most often used for the exterior as well as, sometimes, for the interior walls. Barrel rather than flat tiles are preferred for the roofs.

Accent colors are typically used to highlight or distinguish trim elements. Wrought iron or wood may be introduced into the window treatments and balconies.

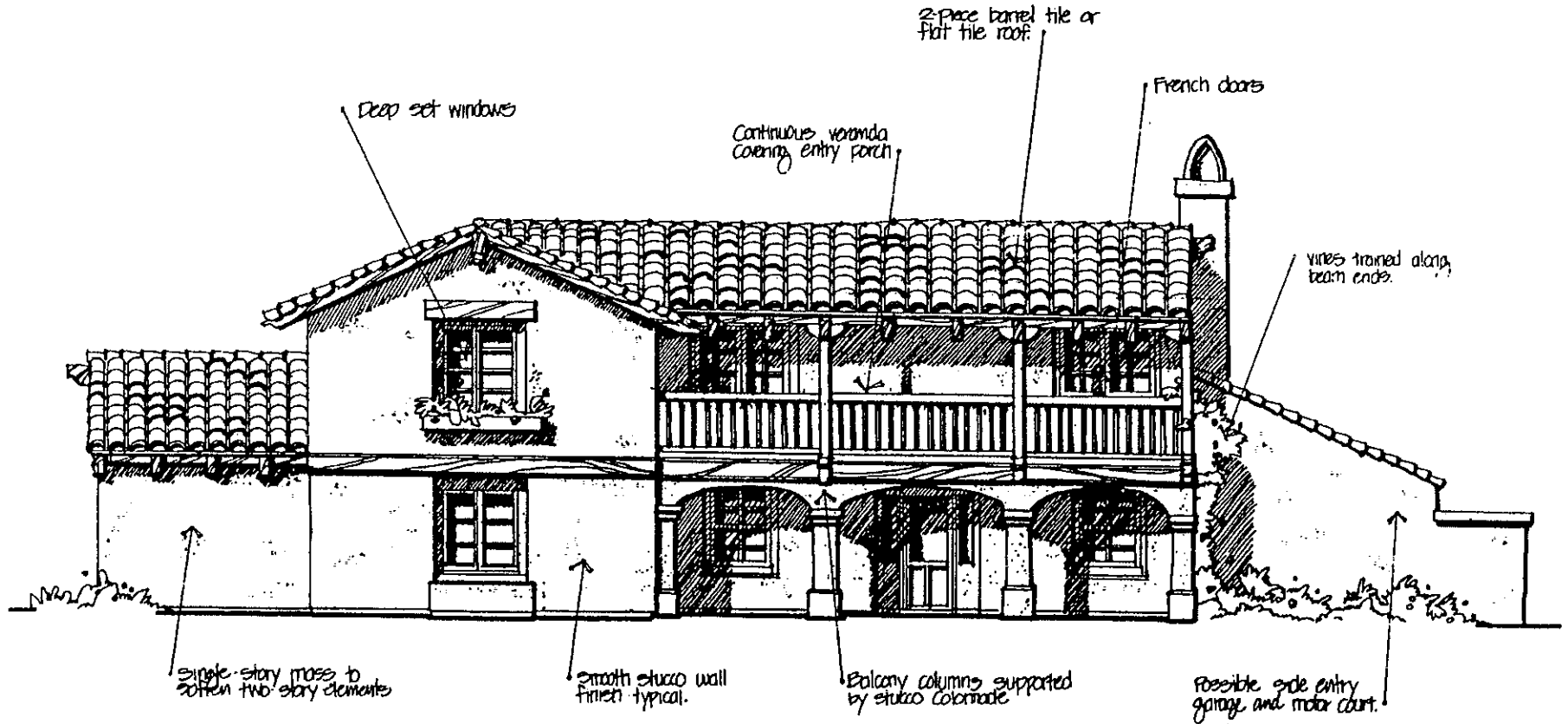


Figure 3-16

# San Miguel Ranch

## CALIFORNIA RANCH/HACIENDA ARCHITECTURAL FEATURES

*Details*

Openings for doors and windows are often deep set, providing excellent shading. Windows are usually casement or double hung type. Large glass areas are oriented to views and outdoor areas. French doors may be used to access outside courtyards and patios. Detached garages will often be connected to the home by distinctive arcades or colonnades.

#### **4.4 Construction Requirements**

*Regulations*

- The Master Developer has established certain construction and safety regulations that will apply to all builders, contractors and service personnel entering San Miguel Ranch Community. These rules are intended to ensure safe, neat and orderly activities for the construction and maintenance of residents with a minimum of disturbance to the community.
- No construction vehicles (cars, trucks, vans, etc.) may be left in visible site from adjacent residences overnight without authorization.
- Where construction work of any kind requires entering upon adjoining property for any purpose, prior written consent shall be obtained from the adjoining property owner.
- Should the owner or contractor desire to have a construction trailer or field office on the job site approval for location shall be obtained from The Master Developer prior to placement, and shall be removed upon completion of construction.
- Owners and contractors are permitted to store construction materials and equipment on the construction site during the construction period at their risk. It should be maintained in a fashion so as not to appear unsightly.

#### **4.5 Residential Design Guidelines - Single-Family**

These guidelines are provided to outline some of the key siting and design issues associated with single-family residential development in San Miguel Ranch. All single-family projects shall comply with these guidelines, to promote attractive neighborhood settings, and to avoid repetitive, monotonous forms. Small-lot single-family projects will have specific site and architectural design reviewed by the City through the established Site Plan review procedures. Some specific issues to be addressed include: massing, roof lines, architectural variety, fenestration, setbacks, streetscapes, and overall project design appeal.

- Architecture shall be varied in theme, style, color and materials to provide interest and variety.

- Building facades shall include relief to avoid a monotonous appearance, with the use of architectural relief on elevations with high visibility, including rear elevations along streets. These may include the use of horizontal offsets, vertical interest, pop-outs, overhangs, applied trim and recesses.
- Single-story elements should be incorporated on two-story structures to provide variety in building massing throughout the subdivision.
- The placements of windows, doors and other openings should be consistent within each theme to provide unified building composition.
- Use of building offsets from the street and between buildings is encouraged.
- The use of variable setbacks in conjunction with special design elements which reduce massing and monotonous roof lines are encouraged.
- Multiple roofing styles should be used within a project to provide visual interest and massing relief between buildings. This is particularly true for small lot products and at side yards. Techniques should include the use of hip and gable elements, and may include the use of different roof pitches on adjacent structures, varied shapes and materials (e.g. flat, barrel, s-shape tiles) and a mix of roofing colors.
- Varied building heights, accommodating architectural enhancements which provide roof line relief, are encouraged within a project.
- The use of features which provide architectural interest and provide different massing, open vs. solid forms are encouraged, such as porches, bay windows, balconies, and courtyards.

#### **4.6 Residential Design Guidelines - Multi-Family**

These guidelines are provided to outline some of the key issues associated with design for multi-family residential development in San Miguel Ranch. Specific site and architectural design will be provided and reviewed by the City through the Site Plan review procedures. Some specific issues to be addressed through this process include: indoor and outdoor privacy, solar access, building appearance, massing, vehicular and pedestrian access and overall project design appeal.

- Residential areas should create an identity through compatible design treatments, distinctive entrances and delineation of project boundaries.
- Buildings should include orientations that create courtyards and open space areas to increase the aesthetic appeal of the site.

- Building architecture should incorporate a variety of units, building sizes, heights and color accents.
- Building facades should include relief to avoid a monotonous appearance, with the use of architectural relief on elevations with high visibility. These may include the use of horizontal offsets, vertical interest, pop-outs, overhangs, applied trim and recesses.
- Signage shall be consistent with the sign regulations in Volume II, the PC District Regulations.
- Stairwells should be covered and integrated into the overall building design.
- Private spaces such as patios and balconies are encouraged for each unit.
- Group parking areas should be buffered from the street and adjacent properties through landscaped setbacks, berming and/or walls.

#### **4.7 Commercial Design Guidelines**

The Retail Commercial center is intended to accommodate shopping facilities that will provide goods and services for the surrounding residential neighborhoods. The center will be developed in conformance with the PC District regulations for San Miguel Ranch, which include permitted uses, property development regulations, off-street parking requirements and signage regulations. These development standards are designed to minimize possible conflicts with adjacent uses, and to provide commercial services at a neighborhood scale.

In addition to the development standards, the following design guidelines are to be considered in the development of the retail center, which will be subject to preparation of a precise plan for site design review.

- The architectural design of the front, back and sides of all commercial buildings shall incorporate various design techniques which could include variation in facade treatment, varying roof and parapet heights, use of insets and different textures and materials to enhance the center's appearance.
- The bulk and scale of the buildings, as well as the basic color palette of the project shall be appropriate to the commercial development and compatible with the surrounding development.
- Architecture should be responsive to the climatic conditions of southern California. Shade should be an important element for building design and placement, indoor/outdoor spaces, and people-gathering places. Arcades, covered walkways, trellises are examples of architectural shading devices. These structures can also provide connection between buildings, protection

from the elements, encourage and define pedestrian circulation patterns, and provide unity and organization to architectural elements.

- Roofing materials and colors shall be selected to complement the visual quality of the adjacent area. All rooftop equipment shall be screened from view, and all building designs shall reflect a sensitivity to views from offsite areas.
- Impacts to adjacent residential areas shall be minimized. Specific issues to be considered in the design of the center includes carefully siting of driveway entrances to assure safe and convenient vehicular and pedestrian access, lighting design to avoid spillover to the adjacent residential areas, location of truck loading areas and other outdoor activity areas to minimize noise impacts.
- The conceptual grading plan indicates a slope bank between the Retail Commercial center and the adjacent multi-family residential area. This area should be landscaped to provide a visual buffer between the two uses. A six-foot wall should be constructed along the common property line, with provisions for pedestrian access between the uses if feasible.
- All signs shall be consistent with the sign regulations established in Volume II, the PC District Regulations, and the sign program in place at the time the development plan for this center is processed.
- Signs should be designed as an integral part of the building and site design concepts.
- Exterior lighting design should incorporate safety and security considerations for all site areas, including parking areas, access drives, internal vehicular circulation and outdoor pedestrian use areas.
- Service area lighting shall be contained within the service yard boundaries and any enclosure walls. No light spillover should be allowed.
- Architectural lighting should be indirect, such as soffit lighting, or shall incorporate a full cut-off shield type fixture.
- Design of the commercial center should consider adjacent uses including the offsite residential area and neighborhood park in Rolling Hills Ranch, in the design and location of retail buildings, parking, pedestrian and vehicular access, and should address transit oriented design and accessibility to transit.

#### ***4.8 Air Quality Improvement Plan Design Features***

The Air Quality Improvement Plan for San Miguel Ranch identifies a number of items which can assist in limiting the air quality impacts associated with development. These measures are identified in Volume 6 of this SPA Plan package, and are also summarized in Volume 1. The following measures are those specifically related to design of development projects, and are included here for reference.

Mandatory measures per the Air Quality Improvement Plan include the following:

- All swimming pools shall use solar energy with back-up low NO<sub>x</sub> water heaters.
- Low NO<sub>x</sub> commercial-sized water heaters shall be installed in all the larger on-site facilities.
- Residential and larger facility gas-fired furnaces shall be outfitted with heat transfer modules providing a 70 percent reduction in NO<sub>x</sub> emissions.
- Provide 220-volt electrical service to the garage for an electrically powered vehicle charging station.

Measures recommended by the Air Quality Improvement Plan include the following:

- Provide a water and electrical connection that may be accessed for optional solar-assisted water heating for domestic or pool/ spa uses.
- Utilize passive design concepts that make use of the naturally mild climate to increase energy efficiency.
- Utilize energy-efficient lighting wherever cost-effective to do so.
- Provide a gas connection to fireplaces to encourage use of log lighters or of artificial fireplace logs.
- Provide an outside natural gas connection to encourage use of gas-fired barbecues.
- Provide outside electrical outlets to encourage use of electrically-powered yard maintenance equipment.
- Insure the availability of more than two phone lines to each home for in-home offices and other telecommuting needs.
- Participation in the SDG&E "Comfort Wise," EPA "Energy Star" or equivalent program is encouraged to promote energy conservation.

# APPENDIX A

## PROJECT MASTER PLANT LIST

This Plant List is included as a guide to help support the various design features of each area in the concept for San Miguel Ranch. The plant palette includes a mixture of trees, shrubs and groundcover which should be used as a component of the design areas as appropriate.

- Trees will typically be large canopy deciduous and/or evergreen species with 20-ft to 40-ft spread. Where adjacent to improvements, appropriate barriers shall be used.
- Shrubs will include a variety of screening/flowering evergreen/deciduous shrubs typically 18 inches to 10 feet height.
- Groundcover will typically be flatted plantings located below shrubs and in planter areas and slope revegetation areas where native hydroseed mix may also be used.

The selection of plant material from this Plant List will take into consideration the plant character and habit and when necessary, appropriate planting techniques will be utilized to ensure maximum effect with minimum impact. The use of any plant species that are not included on this Plant List are subject to review and approval by the Department of Building and Planning, and the Department of Public Works. Final approval of the planting will be subject to review by both the Department of Building and Planning, and the Department of Public Works.

The size of plant materials should be appropriate to the location, design and specific plant material being used, and shall be approved as part of the landscape plans. A typical mix of sizes would be:

Trees: 25% - 36-in box  
50% - 24-in box  
25% - 15 gallon

Shrubs: 25% - 15 gallon  
50% - 5 gallon  
25% - 1 gallon

Groundcover: 1 gallon, flats - as appropriate to species  
Hydroseed - where appropriate



TREES

Aescules California	California Buckeye
Arbutus unedo*	Strawberry Tree
Callistemon citrinus	Lemon Bottle Brush
Catalpa bignoniodes	Common Catalpa
Cedrus deodora	
Chilopsis linearis	Desert Willow
Eucalyptus spp.	Eucalyptus
Ficus macrophylla*	Moreton Bay Fig
Ficus auriculata	NCN
Fremontodendron sp.	NCN
Geijera parviflora	Australian Willow
Ginkgo biloba	Maidenhair Tree
Heteromeles arbutifolia	Toyon
Malosma laurina*	Laural Sumac
Parkinsonia aculeata*	Mex. Palo Verde
Pinus eldarica	Eldarica Pine
Pinus halepensis	Aleppo Pine
Pistacia Chinensis	Chinese Pistachio
Pittosporum undulatum	Victorian Box
Platanus acerifolia*	London Plane Tree
Platanus racemosa*	Western Sycamore
Quercus agrifolia*	California Live Oak
Quercus engelmannii*	Engelman Oak
Quercus ilex*	Holly Oak
Quercus palustris*	Pin Oak
Rhus lancea	African Sumac
Schinus molle*	California Pepper
Tipuana tipu*	Tipu Tree
Tristania conferta	Brisbane Box

\* Special installation conditions will be required prior to final approval.

SHRUBS

Agave spp.	Agave
Aloe spp.	Aloe
Arbutus unedo*	Strawberry Tree
Arctostaphylos spp.	Manzanita
Artemisia californica	Coastal Sagebrush
Atriplex semiballata	Creeping Australian
Atriplex spp.	Saltbrush
Baccharis spp.	Coyote Brush
Bougainvillea spp.	Bougainvillea
Callistemon citrinus	Weeping Bottle Brush
Ceanothus spp.	Ceanothus
Cistus spp.	Rock Rose
Dietes vegeta	Fortnight Lily
Dudleya spp.	Dudleya
Echeveria spp.	Hen and Chicks
Echium fastuosum	Pride of Madeira
Ferocactus viridescens*	Coast Barrel Cactus
Heteromeles arbutifolia	Toyon
Ligustrum japonica 'Texanum'	Texas Privet
Lonicera sp.	
Melaleuca sp.	NCN
Myoporum sp.	NCN
Phormium tenax	New Zealand Flax
Pittosporum sp.	NCN
Prunus ilicifolia	Holly Leaf Cherry
Prunus lyonii	Catalina Cherry
Pyracantha Sp.	NCN
Rhaphiolepis sp.	NCN
Rhus integrifolia	Lemonade Berry
Rhus lancea	African Sumac
Rhus spp.	Sumac
Simmondsia Sp.	NCN
Viburnum spp.	Currant

\* Special installation conditions will be required prior to final approval.

**GROUNDCOVERS**

Acacia redolens	NCN
Achillea tomentosa	Yarrow
Arctostaphylos spp.	Manzanita
Atriplex semibaccata	Australian Saltbrush
Ceanothus spp.	Wild Lilac
Cistus spp.	Rockrose
Delosperma alba	White Trailing Iceplant
Gazania hybrid	Trailing Gazania
Lantana montevidensis	Trailing Lantana
Myoporum 'Pacificum'	NCN
Myoporum parvifolium prostrata	NCN
Pilularis prostrata	Coyote Bush
Rosa banksiae	Lady Banks' Rose
Rosemarinus o. 'Prostratus'	Dwarf Rosemary
Hydroseed Mix	Site specific seed mix containing, but not limited California sagebrush and chaparral.

**SAN MIGUEL RANCH**  

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*Sectional Planning Area Plan*

**Volume 4**  
**Public Facilities Financing Plan**

***Project Applicant:***

Trimark Pacific San Miguel, LLC  
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Aliso Viejo, CA 92656

***Prepared By:***

Willdan Associates  
CIC Research, Inc.

**Approved**  
**October 19, 1999**  
Resolution No. 19631

CITY OF CHULA VISTA,  
CALIFORNIA

**SAN MIGUEL RANCH SPA  
PUBLIC FACILITIES FINANCE PLAN  
AND INCLUDING THE  
VISTA MOTHER MIGUEL SUBDIVISION**

**CITY COUNCIL**

Shirley A. Horton  
Mayor

Stephen C. Padilla	John S. Moot
Patty Davis	Mary Salas

**CITY STAFF**

David D. Rowlands, Jr.	City Manager
John M. Kaheny	City Attorney
George Krempf	Deputy City Manager
Robert A. Leiter	Director of Planning
John P. Lippitt	Director of Public Works
Clifford L. Swanson	City Engineer
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APPROVED  
October 19, 1999

# **San Miguel Ranch Public Facilities Finance Plan and including the Vista Mother Miguel subdivision**

The San Miguel Ranch PFFP including the Vista Mother Miguel subdivision has been reviewed for accuracy by the responsible department or agency as indicated below.

<u>SECTION</u>	<u>DEPARTMENT</u>
4.3 LAND USE ASSUMPTIONS .....	Planning Department
4.4 FACILITY ANALYSIS	
4.4.1 Traffic .....	Public Works Department
4.4.2 Police .....	Police Department
4.4.3 Fire and EMS .....	Fire Department
4.4.4 Schools .....	Chula Vista Elementary School District Sweetwater Union High School District
4.4.5 Libraries .....	Library Department
4.4.6 Parks and Open Space .....	Planning Department
4.4.7 Water .....	Otay Water District
4.4.8 Sewer .....	Public Works Department
4.4.9 Drainage .....	Public Works Department
4.4.10 Air Quality .....	Contained in SPA Plan
4.4.11 Civic Center .....	City Manager's Office
4.4.12 Corporation Yard .....	City Manager's Office
4.4.13 Other Public Facilities .....	City Manager's Office
4.4.14 Fiscal Analysis .....	Finance Department

# Table of Contents

<u>Sections</u>	<u>Pages</u>
EXECUTIVE SUMMARY .....	4 1 - 1
INTRODUCTION .....	4 2 - 1
4.2.1    Overview .....	4.2 - 2
4.2.2    Purpose .....	4.2 - 2
4.2.3    Growth Management Threshold Standards .....	4.2 - 2
4.2.4    The San Miguel Ranch Project .....	4.2 - 3
4.2.5    The Vista Mother Miguel Subdivision .....	4.2 - 4
4.2.6    Public Facilities Finance Plan Boundaries .....	4.2 - 4
LAND USE ASSUMPTIONS .....	4.3 - 1
4.3.1    Purpose .....	4.3 - 2
4.3.2    Existing Development .....	4.3 - 3
4.3.3    Development Phasing Forecast .....	4.3 - 3
4.3.4    San Miguel Ranch Development Summary .....	4.3 - 3
4.3.5    Vista Mother Miguel Subdivision Summary .....	4.3 - 4
4.3.6    Equivalent Dwelling Units .....	4.3 - 10
FACILITY ANALYSIS .....	4.4 - 1
4.4    Facility Analysis .....	4.4 - 2
4.4.1    TRAFFIC .....	4.4.1 - 2
4.4.1.1    Threshold Standard .....	4.4.1 - 2
4.4.1.2    Level Of Service (LOS) Definition .....	4.4.1 - 2
4.4.1.3    Freeway Segment Level Of Service Standards and Thresholds .....	4.4.1 - 3
4.4.1.4    Arterial Roadway Segment Level of Service Standards and Thresholds .....	4.4.1 - 4
4.4.1.5    Intersection Level Of Service Standards and Threshold .....	4.4.1 - 6
4.4.1.5.1    Signalized Intersection Screening Methodology .....	4.4.1 - 7
4.4.1.5.2    Signalized Intersection Analysis .....	4.4.1 - 8
4.4.1.6    Chula Vista Traffic Monitoring Program (TMP) .....	4.4.1 - 10
4.4.1.7    Service Analysis .....	4.4.1 - 10
4.4.1.8    Project Processing Requirements .....	4.4.1 - 11
4.4.1.9    Existing Conditions .....	4.4.1 - 11
4.4.1.10    Transit .....	4.4.1 - 13
4.4.1.11    Trip Generation and Phasing .....	4.4.1 - 13
4.4.1.11.1    Project Trip Generation .....	4.4.1 - 13
4.4.1.11.2    Project Phasing .....	4.4.1 - 16
4.4.1.12    Adequacy Analysis .....	4.4.1 - 27
4.4.1.13    Cost & Financing Traffic Improvements .....	4.4.1 - 30
4.4.1.14    Threshold Compliance and Recommendations .....	4.4.1 - 34
4.4.2    POLICE .....	4.4.2 - 2
4.4.2.1    Threshold Standard .....	4.4.2 - 2
4.4.2.2    Service Analysis .....	4.4.2 - 2

## Table of Contents (Cont'd)

<u>Sections</u>	<u>pages</u>
4.4.2.3 Project Processing Requirements	4.4.2 - 2
4.4.2.4 Existing Conditions	4.4.2 - 2
4.4.2.5 Adequacy Analysis	4.4.2 - 3
4.4.2.6 Financing Police Facilities	4.4.2 - 3
4.4.2.7 Threshold Compliance and Recommendations	4.4.2 - 4
4.4.3 FIRE AND EMERGENCY MEDICAL SERVICES	4.4.3 - 2
4.4.3.1 Threshold Standard	4.4.3 - 2
4.4.3.2 Service Analysis	4.4.3 - 2
4.4.3.3 Project Processing Requirements	4.4.3 - 2
4.4.3.4 Existing Conditions	4.4.3 - 3
4.4.3.5 Adequacy Analysis	4.4.3 - 3
4.4.3.6 Financing Fire Service Facilities	4.4.3 - 4
4.4.3.7 Threshold Compliance and Recommendations	4.4.3 - 5
4.4.4 SCHOOLS	4.4.4 - 2
4.4.4.1 Threshold Standard	4.4.4 - 2
4.4.4.2 Service Analysis	4.4.4 - 2
4.4.4.3 Project Processing Requirements	4.4.4 - 2
4.4.4.4 Existing Conditions	4.4.4 - 3
4.4.4.5 School Sizing and Location	4.4.4 - 6
4.4.4.6 Financing School Facilities	4.4.4 - 8
4.4.4.7 Threshold Compliance and Recommendations	4.4.4 - 12
4.4.5 LIBRARIES	4.4.5 - 2
4.4.5.1 Threshold Standard	4.4.5 - 2
4.4.5.2 Service Analysis	4.4.5 - 2
4.4.5.3 Project Processing Requirements	4.4.5 - 2
4.4.5.4 Existing Conditions	4.4.5 - 2
4.4.5.5 Adequacy Analysis	4.4.5 - 2
4.4.5.6 Financing Library Facilities	4.4.5 - 4
4.4.5.7 Threshold Compliance and Recommendations	4.4.5 - 5
4.4.6 PARKS, TRAILS AND OPEN SPACE	4.4.6 - 2
4.4.6.1 Park Threshold Standard	4.4.6 - 2
4.4.6.2 Service Analysis	4.4.6 - 2
4.4.6.3 Project Processing Requirements	4.4.6 - 2
4.4.6.4 Existing Conditions	4.4.6 - 2
4.4.6.5 Project Park Requirements	4.4.6 - 2
4.4.6.6 Park Adequacy Analysis	4.4.6 - 9
4.4.6.7 Open Space and Trails	4.4.6 - 10
4.4.6.8 Financing Park, Open Space, and Trail Facilities	4.4.6 - 12
4.4.6.9 Threshold Compliance and Recommendations	4.4.6 - 14
4.4.7 WATER	4.4.7 - 2
4.4.7.1 Threshold Standard	4.4.7 - 2
4.4.7.2 Service Analysis	4.4.7 - 2
4.4.7.3 Project Processing Requirements	4.4.7 - 3
4.4.7.4 Existing Conditions	4.4.7 - 3



## Table of Contents (Cont'd)

<u>Sections</u>	<u>pages</u>
4.4.7.5 Adequacy Analysis .....	4 4 7 - 4
4 4 7.6 Existing Facilities .....	4 4 7 - 5
4.4.7.7 Proposed Facilities .....	4 4 7 - 6
4.4.7.8 Financing Water Facilities .....	4 4 7 - 9
4 4 8 SEWER .....	4 4 8 - 2
4 4 8.1 Threshold Standard .....	4 4 8 - 2
4 4 8.2 Service Analysis .....	4 4 8 - 2
4 4 8.3 Project Processing Requirements .....	4 4 8 - 2
4 4 8.4 Existing Conditions .....	4 4 8 - 3
4 4 8.5 Adequacy Analysis .....	4 4 8 - 3
4 4 8.6 Recommended Sewerage Facilities .....	4 4 8 - 7
4 4 8.7 Financing Sewerage Facilities .....	4 4 8 - 8
4 4 8.8 Threshold Compliance and Recommendations .....	4 4 8 - 10
4 4 9 DRAINAGE .....	4 4 9 - 2
4 4 9.1 Threshold Standard .....	4 4 9 - 2
4 4 9.2 Service Analysis .....	4 4 9 - 2
4 4 9.3 Project Processing Requirements .....	4 4 9 - 2
4 4 9.4 Existing Conditions .....	4 4 9 - 2
4 4 9.5 Proposed Facilities .....	4 4 9 - 3
4 4 9.6 Financing Drainage Facilities .....	4 4 9 - 5
4 4 9.7 Threshold Compliance and Recommendations .....	4 4 9 - 7
4 4 10 AIR QUALITY .....	4 4 10 - 2
4 4 10.1 Threshold Standard .....	4 4 10 - 2
4 4 10.2 Service Analysis .....	4 4 10 - 2
4 4 10.3 Threshold Compliance and Recommendations .....	4 4 10 - 2
4 4 11 CIVIC CENTER .....	4 4 11 - 2
4 4 11.1 Threshold Standard .....	4 4 11 - 2
4 4 11.2 Service Analysis .....	4 4 11 - 2
4 4 11.3 Existing Conditions .....	4 4 11 - 2
4 4 11.4 Adequacy Analysis .....	4 4 11 - 3
4 4 11.5 Financing Civic Center Facilities .....	4 4 11 - 3
4 4 11.6 Threshold Compliance and Recommendations .....	4 4 11 - 4
4 4 12 CORPORATION YARD .....	4 4 12 - 2
4 4 12.1 Threshold Standard .....	4 4 12 - 2
4 4 12.2 Service Analysis .....	4 4 12 - 2
4 4 12.3 Existing Conditions .....	4 4 12 - 2
4 4 12.4 Adequacy Analysis .....	4 4 12 - 2
4 4 12.5 Financing Corporation Yard Facilities .....	4 4 12 - 3
4 4 11.6 Threshold Compliance and Recommendations .....	4 4 12 - 3
4 4 13 OTHER PUBLIC FACILITIES .....	4 4 13 - 2
4 4 13.1 Threshold Standard .....	4 4 13 - 2
4 4 13.2 Service Analysis .....	4 4 13 - 2
4 4 13.3 Existing Conditions .....	4 4 13 - 2
4 4 13.4 Financing Other Public Facilities .....	4 4 13 - 2

## Table of Contents (Cont'd)

<u>Sections</u>	<u>pages</u>
4.4.13.5 Threshold Compliance and Recommendations .....	4.4.13 - 3
4.4.14 FISCAL ANALYSIS .....	4.4.14 - 2
4.4.14.1 Threshold Standard .....	4.4.14 - 2
4.4.14.2 Facility Master Plan .....	4.4.14 - 2
4.4.14.3 Project Processing Requirements .....	4.4.14 - 2
4.4.14.4 Fiscal Analysis of Project .....	4.4.14 - 2
4.4.14.4.1 Introduction .....	4.4.14 - 2
4.4.14.4.2 Project Description .....	4.4.14 - 3
4.4.14.4.3 Project Demographics and Land Uses .....	4.4.14 - 4
4.4.14.4.4 Revenues .....	4.4.14 - 7
4.4.14.4.5 Operating Expenditures .....	4.4.14 - 12
PUBLIC FACILITY FINANCE .....	4.4.15 - 1
4.1 PUBLIC FACILITY FINANCE .....	4.4.15 - 2
4.1.1 Overview .....	4.4.15 - 2
4.1.2 Subdivision Exactions .....	4.4.15 - 2
4.1.3 Development Impact Fee Programs .....	4.4.15 - 3
4.1.4 Debt Finance Programs .....	4.4.15 - 4
4.1.5 Other Methods Used to Finance Facilities .....	4.4.15 - 5
4.1.6 Public Facility Finance Policies .....	4.4.15 - 6
4.1.7 Cumulative Debt .....	4.4.15 - 8
4.1.8 Lifecycle Cost .....	4.4.15 - 11
APPENDICES	
Appendix A San Miguel Ranch Fiscal Impact Analysis	
Appendix B Vista Mother Miguel Fiscal Impact Analysis	

## List of Figures

<u>No.</u>	<u>Title</u>	<u>Page</u>
Figure 1	Regional Location Map .....	4.2 - 5
Figure 1A	Vista Mother Miguel Project Setting .....	4.2 - 6
Figure 2	Site Utilization Plan .....	4.3 - 5
Figure 3	San Miguel Ranch Phasing Plan .....	4.3 - 6
Figure 4	Circulation Map .....	4.4.1 - 26
Figure 5	School Location Map .....	4.4.4 - 9
Figure 6	Parks, Trails, and Open Space Plan .....	4.4.6 - 6
Figure 7	Proposed Water Plan .....	4.4.7 - 7
Figure 8	Reclaimed Water Plan .....	4.4.7 - 11
Figure 9	Existing Sewer Facilities .....	4.4.8 - 6
Figure 10	Recommended Wastewater Plan .....	4.4.8 - 9
Figure 11	Drainage Plan .....	4.4.9 - 6

## List of Tables

<u>No.</u>	<u>Title</u>	<u>Page</u>
Table 1	San Miguel Ranch Summary of City DIF Fees by Phase and Facility	4.1 - 6
Table 2	Timing and Funding Source by Facility	4.1 - 7
Table 3	Vista Mother Miguel Summary of City DIF Fees by Phase and Facility	4.1 - 8
Table 4	Development Phasing Forecast (5 to 7 Years) Summary	4.3 - 5
Table 4A	Land Use Table for San Miguel Ranch Spa Plan	4.3 - 9
Table 5	San Miguel Ranch Phasing and Site Utilization Plan	4.3 - 10
Table 6	Vista Mother Miguel Subdivision Phasing and Site Utilization Plan	4.3 - 10
Table 7	San Miguel Ranch Equivalent Dwelling Units (EDU's) by Phase for Transportation and Interim Pre-SR-125 Facilities	4.3 - 11
Table 8	Vista Mother Miguel Subdivision Equivalent Dwelling Units (EDU's) for Transportation and Interim Pre-SR-125 Facilities	4.3 - 11
Table 9	San Miguel Ranch Equivalent Dwelling Units (EDU's) by Phase for Public Facilities	4.3 - 12
Table 10	Vista Mother Miguel Subdivision Equivalent Dwelling Units (EDU's) by Phase for Public Facilities	4.3 - 12
Table 11	Caltrans District 11 Freeway Segment Level of Service Definitions	4.4.1 - 3
Table 12	City of Chula Vista Segment Capacity and Level of Service Standards Average Daily Traffic Volumes	4.4.1 - 5
Table 13	County of San Diego Segment Capacity and Level of Service Standards Average Daily Traffic Volumes	4.4.1 - 6
Table 14	Signalized Intersection Level of Service Highway Capacity Manual Operational Analysis Method	4.4.1 - 9
Table 15	San Miguel Ranch SPA Traffic Analysis	4.4.1 - 9
Table 16	San Miguel Ranch SPA Trip Generation by Phase and Land Use	4.4.1 - 14
Table 17	San Miguel Ranch SPA Trip Generation by Phase and EDU's	4.4.1 - 14
Table 17A	San Miguel Ranch Roadway Improvement Phasing and Cost	4.4.1 - 30
Table 18	Phasing EDU's for Transportation and Interim Pre-SR-125 Facilities	4.4.1 - 32

## List of Tables

<u>No.</u>	<u>Title</u>	<u>Page</u>
Table 19	San Miguel Ranch Transportation DIF Fees .....	4.4.1 - 32
Table 20	Vista Mother Miguel Transportation DIF Fees .....	4.4.1 - 32
Table 21	San Miguel Ranch Interim Pre-SR-125 DIF Fees .....	4.4.1 - 32
Table 22	Vista Mother Miguel Interim Pre-SR-125 DIF Fees .....	4.4.1 - 33
Table 23	San Miguel Ranch Traffic Signal Fees .....	4.4.1 - 33
Table 24	Vista Mother Miguel Traffic Signal Fees .....	4.4.1 - 33
Table 25	San Miguel Ranch Public Facilities Fees For Police .....	4.4.2 - 4
Table 26	Vista Mother Miguel Public Facilities Fees For Police .....	4.4.2 - 4
Table 27	San Miguel Ranch Public Facilities Fees For Fire/EMS .....	4.4.3 - 5
Table 28	Vista Mother Miguel Public Facilities Fees For Fire/EMS .....	4.4.3 - 5
Table 29	Chula Vista Elementary School District 6-5-98 Enrollments vs. Capacity .....	4.4.4 - 4
Table 30	Sweetwater Union High School District High School Enrollments vs. Permanent Capacity .....	4.4.4 - 5
Table 31	San Miguel Ranch Student Generation by Development Phase .....	4.4.4 - 6
Table 32	Vista Mother Miguel Student Generation by Development Phase .....	4.4.4 - 7
Table 33	Existing Library Facilities .....	4.4.5 - 2
Table 34	Future Library Facilities .....	4.4.5 - 3
Table 35	San Miguel Ranch/Vista Mother Miguel Library Space Demand Compared to Supply .....	4.4.5 - 4
Table 36	San Miguel Ranch Public Facilities Fees For Libraries .....	4.4.5 - 5
Table 37	Vista Mother Miguel Public Facilities Fees For Libraries .....	4.4.5 - 5
Table 38	Parkland Dedication Standards .....	4.4.6 - 3
Table 39	San Miguel Ranch Parkland Dedication Requirements per City Ordinance .....	4.4.6 - 3

## List of Tables

<u>No.</u>	<u>Title</u>	<u>Page</u>
Table 40	Vista Mother Miguel Parkland Dedication Requirements per City Ordinance .....	4.4.6 - 3
Table 41	Chula Vista Existing Park Inventory .....	4.4.6 - 4
Table 42	Chula Vista Future Parks .....	4.4.6 - 5
Table 43	San Miguel Ranch SPA Plan Park Acres and Eligible Credits .....	4.4.6 - 9
Table 44	Park Acreage Demand Compared to Supply East of Interstate 805 .....	4.4.6 - 9
Table 45	San Miguel Ranch Park Acquisition and Development (PAD) Fees .....	4.4.6 - 13
Table 45A	San Miguel Ranch Park Acquisition and Development (PAD) Fees Acquisition Component Only .....	4.4.6 - 13
Table 46	Vista Mother Miguel Park Acquisition and Development (PAD) Fees .....	4.4.6 - 14
Table 47	Sewer Capacity Used By Forecasted Development (see Table 4) .....	4.4.8 - 4
Table 47A	Sewer Capacity Used By San Miguel Ranch and Vista Mother Miguel .....	4.4.8 - 4
Table 48	Metro System Improvements .....	4.4.8 - 5
Table 49	Proposed Detention Basins .....	4.4.9 - 4
Table 50	San Miguel Ranch Public Facilities Fees For Civic Center .....	4.4.11 - 4
Table 51	Vista Mother Miguel Public Facilities Fees For Civic Center .....	4.4.11 - 4
Table 52	San Miguel Ranch Public Facilities Fees For Corporation Yard .....	4.4.12 - 3
Table 53	Vista Mother Miguel Public Facilities Fees For Corporation Yard .....	4.4.12 - 3
Table 54	Public Facilities Fees For Other Public Facilities .....	4.4.13 - 3
Table 55	Vista Mother Miguel Public Facilities Fees For Other Public Facilities .....	4.4.13 - 3
Table 56	San Miguel Ranch Absorption Schedule and Market Values by Land Use .....	4.4.14 - 5
Table 56A	Vista Mother Miguel Absorption Schedule and Market Values by Land Use .....	4.4.14 - 6
Table 57	San Miguel Fiscal Impact General Assumptions .....	4.4.14 - 6

**List of Tables**

<b><u>No.</u></b>	<b><u>Title</u></b>	<b><u>Page</u></b>
Table 58	Fiscal Impact Revenue Generation Assumptions .....	4.4.14 - 7
Table 59	Fiscal Impact Cost Allocation Assumptions .....	4.4.14 - 12
Table 60	City of Chula Vista Public Works Cost per Unit/Acre/Mile .....	4.4.14 - 17
Table 61	Net Fiscal Impact of the San Miguel Ranch on the City of Chula Vista .....	4.4.14 - 20
Table 62	Net Fiscal Impact of Vista Mother Miguel on the City of Chula Vista .....	4.4.14 - 21
Table 63	Estimated Revenue Available for Debt Service on Land Secured Financings .....	4.4.15 - 9
Table 64	Estimate of Facilities Cost Potentially Funded from Debt Service .....	4.4.15 - 10

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# **EXECUTIVE SUMMARY**

## **4.1 EXECUTIVE SUMMARY**

### **4.2 OVERVIEW**

This Public Facilities Finance Plan (PFFP) has been prepared under the requirements of the City of Chula Vista's Growth Management Program and Implementation Ordinance No. 2448. The preparation of the PFFP is required in conjunction with the preparation of the Sectional Planning Area (SPA) Plan to ensure that the phased development of the project is consistent with the overall goals and policies of the City's General Plan, Growth Management Program, and the San Miguel Ranch General Development Plan (Horseshoe Bend Plan) which was adopted by the Chula Vista City Council by Resolution No. 18532 on December 17, 1996 to ensure that the development of the project will not adversely impact the City's Quality of Life Standards. This PFFP meets the policy objectives of the San Miguel Ranch GDP.

In addition, this PFFP also incorporates the 43-lot Vista Mother Miguel subdivision immediately adjacent to the north boundary of the San Miguel Ranch.

The PFFP is based upon the phasing as presented in the SPA Plan dated December 19, 1998. The San Miguel Ranch project is proposed to be developed in four phases. The PFFP begins by analyzing the existing demand for facilities based upon the demand from existing development and those projects with various entitlements through the year 2005. The list of forecasted projects is used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects may not have committed capacity. Then, the PFFP uses the phasing as contained in the San Miguel Ranch Sectional Planning Area (SPA) Plan to determine the impacts associated with each phase of the project. The Vista Mother Miguel subdivision is anticipated to coincide with Phase 2 of the San Miguel Ranch project.

When specific thresholds are projected to be reached or exceeded based upon the analysis of the phased development of the San Miguel Ranch project, the PFFP provides recommended mitigation necessary for the continued compliance with the Growth Management Program and Quality of Life Standards. The PFFP does not propose different development phasing from that identified in the SPA Plan, but may indicate that the development phasing should be limited or reduced until certain actions are taken to guarantee public facilities will be available or provided to meet the Quality of Life Standards. Subsequent changes to the phasing shall require an amendment to the PFFP.

As an applicant receives each succeeding development approval, the applicant must perform required steps leading to the timely provision of the required facility. Failure to perform the required step curtails additional development approvals. The concept is illustrated below:

#### **Performance of Facility Thresholds**

- GDP** • Goals, objectives & policies established
- Facility thresholds established.
- Processing requirements established

- 
- 
- SPA**
- Facility financing refined and funding source identified consistently with GDP goals, objectives & policies.
  - Facility demand and costs calculated consistently with adopted land uses and GDP defined methodologies
  - Specific facility financing and phasing analysis performed to assure compliance with Growth Management Thresholds
  - Facilities sited and zoning identified

- TENTATIVE MAP**
- Subdivision approval conditioned upon assurance of facility funding.
  - Subdivision approval conditioned upon payment of fees, or the dedication, reservation or zoning of land for identified facilities.
  - Subdivision approval conditioned upon construction of certain facility improvements.

- FINAL MAP**
- Tentative Map conditions performed.
  - Lots created.

- BUILDING PERMIT**
- Impact fees paid as required.

The critical link between the thresholds and development entitlements is the Public Facilities Finance Plan. Section I.11 of the GDP, General Development Plan Implementation, imposes the preparation of Public Facility Financing and Phasing Plans as a condition of approval of all SPAs. This PFFP satisfies the GDP requirement. The PFFP requires the preparation and approval of phasing schedules showing how and when facilities and improvements necessary to serve proposed development will be installed or financed to meet the threshold standards, including:

- An inventory of present and future requirements for each facility.
- A summary of facilities cost.
- A facility phasing schedule establishing the timing for installation or provisions of facilities.
- A financing plan identifying the method of funding for each facility required.

Subsection C of Municipal Code Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City may require amendment, modification, suspension, or termination of an approved PFFP.

**General Conditions for San Miguel Ranch  
Public Facilities Finance Plan  
and including the Vista Mother Miguel subdivision**

1. All development within the boundaries of the PFFP for the San Miguel Ranch and the Vista Mother Miguel subdivision shall conform to the provisions of Section 19.09 of the Chula Vista Municipal Code (Growth Management Ordinance) and to the provisions and conditions of this Public Facilities Financing Plan.
2. All development within the boundaries of the PFFP for San Miguel Ranch and the Vista Mother Miguel subdivision shall be required to pay development impact fees for public facilities, transportation and other applicable fees pursuant to the most recently adopted program by the City Council, and as amended from time to time. Development within the boundaries of the San Miguel Ranch and Vista Mother Miguel subdivision shall also be responsible for fair share proportionate fees that are necessary to meet the adopted facility performance standards as they related to the SPA Plan and subdivision application.
3. The Public Facilities Financing Plan shall be implemented in accordance with Chula Vista Municipal Code 19.09.090. Future amendments shall be in accordance with CVMC 19.09.100 and shall incorporate newly acquired data, to add conditions and update standards as determined necessary by the City through the required monitoring program. Amendment to this Plan may be initiated by action of the Planning Commission, City Council or property owners at any time. Any such amendments must be approved by the City Council.
4. Approval of this PFFP does not constitute prior environmental review for projects within the boundaries of this Plan. All future projects within the boundaries of this PFFP shall undergo environmental review as determined appropriate by the City of Chula Vista.
5. Approval of this PFFP does not constitute prior discretionary review or approval for projects within the boundaries of the Plan. All future projects within the boundaries of the San Miguel Ranch PFFP and including the Vista Mother Miguel subdivision shall undergo review in accordance with the Chula Vista Municipal Code. This PFFP analyzes the maximum allowable development potential for planning purposes only. The approval of this plan does not guarantee specific development densities.
6. The facilities and phasing requirements identified in this PFFP are based on the San Miguel Ranch SPA Plan which assumes that 1,394 dwelling units and 14.3 acres of commercial development will be constructed. The Vista Mother Miguel subdivision assumes 43 dwelling units will be constructed. If fewer units are actually constructed, facility and phasing requirements shall be adjusted proportionately.
7. The plan analysis is based upon the phasing presented in this document. Any changes to phasing shall require an amendment to the PFFP.

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**Public Facility Cost and Fee Summary  
San Miguel Ranch SPA  
and Including the Vista Mother Miguel Subdivision**

The following tables identify and summarize the various facility costs associated with development of the San Miguel Ranch project and including the Vista Mother Miguel subdivision. The facilities and their cost are identified in detail in Section 3 of this Public Facilities Finance Plan. The tables indicate a recommended financing alternative based upon current City practices and policies. However, where another financing mechanism may be shown at a later date to be more effective, the City may implement such other mechanisms in accordance with City policies. This will allow the City maximum flexibility in determining the best use of public financing to fund public infrastructure improvements.

The traffic study and resulting analysis has identified several projects that will be required as the result of the development of San Miguel Ranch. The project will require the construction of Mt Miguel Road as a four-lane street with raised median following the completion of SR-125 and the construction of Proctor Valley Road as a two lane roadway. The total cost of these two non-DIF eligible facilities is estimated to be \$13,577,400.

Transportation DIF Fees generated by the San Miguel Ranch SPA Plan total \$9,465,259. Fees are also generated for Pre-SR-125 facilities (\$1,327,662) and for traffic signals (\$299,513). Transportation DIF Fees generated by the Vista Mother Miguel subdivision total \$251,378. Fees are also generated for Pre-SR-125 facilities (\$35,260) and for traffic signals (\$4,472).

The San Miguel Ranch SPA Plan is anticipated to require one elementary school which will be constructed with funding through a Mello-Roos Community Facilities District already established by the Chula Vista Elementary School District. The Project will also participate in a CFD established by the Sweetwater Union High School District. The Vista Mother Miguel subdivision will participate in the CFD's for each school district.

Backbone sewer, drainage and water improvements will be funded, in part, through the payment of impact fees and capacity fees established for these purposes. Onsite facilities will be funded by each developer.

Parks, trails and open space will be funded, in part, through the payment of Park Acquisition and Development Fees (PAD fees), dedication, and developer exactions. The San Miguel Ranch SPA Plan will generate approximately \$5,640,315 in PAD fee revenues. The Project proposes 3.1 acres in excess of the 12.1 acres required to meet the project's parkland demand. The applicant has an opportunity to dedicate the 12.1 acres in lieu of paying the acquisition component of the PAD fees, which has been calculated to be \$2,724,885. The Vista Mother Miguel subdivision will generate approximately \$188,125 in PAD fee revenues.

Police, fire and emergency medical services, library, civic center, corporation yard, and other public facilities will be funded, in part, from revenues generated from the payment of Public Facilities Development Impact Fees at building permit issuance. These fee revenues total approximately

## Executive Summary

\$3,063,631 for the San Miguel Ranch SPA Plan and \$277,178 for the Vista Mother Miguel subdivision.

Altogether, the City's development impact fees by phase and facility for the San Miguel Ranch SPA Plan total \$19,796,380 as shown on Table 1 and \$568,288 for the Vista Mother Miguel subdivision as on Table 3.

Facility	Phase 1	Phase 2	Phase 3	Phase 4	Totals
<b>Traffic</b>	\$3,310,530	\$2,610,481	\$2,166,400	\$3,005,023	\$11,092,434
<b>Sewer</b>					\$0 <sup>1</sup>
<b>Drainage</b>					\$0 <sup>1</sup>
<b>Water</b>					\$0 <sup>1</sup>
<b>Police</b>	\$114,915	\$110,920	\$75,200	\$46,601	\$347,636
<b>Fire/EMC</b>	\$68,949	\$66,552	\$45,120	\$27,960	\$208,581
<b>Schools</b>					\$0 <sup>1</sup>
<b>Library</b>	\$266,016	\$256,768	\$174,080	\$107,875	\$804,739
<b>Parks (PAD Fees)</b>	\$2,139,375	\$1,763,070	\$1,400,000	\$337,870	\$5,640,315
<b>Civic Center</b>	\$257,703	\$248,744	\$168,640	\$104,504	\$779,591
<b>Corp. Yard</b>	\$251,835	\$243,080	\$164,800	\$102,125	\$761,840
<b>Other Facilities</b>	\$53,301	\$51,448	\$34,880	\$21,615	\$161,244
<b>Total</b>	<b>\$6,462,624</b>	<b>\$5,351,063</b>	<b>\$4,229,120</b>	<b>\$3,753,573</b>	<b>\$19,796,380</b>

<sup>1</sup> No City-imposed Development Impact Fee program in place for this facility.

**Table 2  
TIMING AND FUNDING SOURCE BY FACILITY**

Facility	Funding Source	Timing
<b>Traffic</b>		<b>Project      Cumulative</b>
1. No Specific Facility	Pay Trans. DIF	Building Permit      n/a
2. No Specific Facility	Pay Pre SR-125 DIF	Building Permit      n/a
3. No Specific Facility	Pay Traffic Signal Fee	Building Permit      n/a
4. Mt. Miguel Road (Phase 1)	Developer Exaction	Ph1 @ 246 EDU      246 EDU
5. Mt. Miguel Road (Phase 2)	Developer Exaction	Ph2 @ 716 EDU      962 EDU
6. Mt. Miguel Road (Phase 3)	Developer Exaction	Ph3 @ 712 EDU      1,674 EDU
7. Proctor Valley Rd. (Reach 4)	Developer Exaction	Ph2 @ 716 EDU      962 EDU
8. Proctor Valley Rd. (Reach 1-3)	Developer Exaction	Ph3 @ 712 EDU      1,674 EDU
<b>Sewer</b>	Developer Build Pay County Fees Pay City Fees	Concurrent with phasing Building Permit Building Permit
<b>Drainage</b>	Developer Build	Per Ordinance
<b>Water</b>	Pay OWD Capacity Fees	Pay at purchase of water meters
<b>Police</b>	Pay PFDIF	Building Permit
<b>Fire/EMC</b>	Pay PFDIF	Building Permit
<b>Schools</b>	SUHSD CFD No. 5 CVESD CFD No. 10	Annex to Districts
<b>Library</b>	Pay PFDIF	Building Permit
<b>Parks</b>		
1. Grading & utilities	Developer/PAD credit	@ 1 <sup>st</sup> DU
2. Start construction	Developer/PAD credit	@ 800 <sup>th</sup> DU
3. Complete for City acceptance	Developer/PAD credit	@ 960 <sup>th</sup> DU
4. Park needs study	Jointly w/ others	Prior to 1 <sup>st</sup> final map
<b>Civic Center</b>	Pay PFDIF	Building Permit
<b>Corp. Yard</b>	Pay PFDIF	Building Permit
<b>Other Public Facilities</b>	Pay PFDIF	Building Permit

## Executive Summary

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<b>Facility</b>	<b>Phase 1 (Phase 2 of San Miguel Ranch)</b>
Traffic	\$291,110
Sewer	\$0 <sup>2</sup>
Drainage	\$0 <sup>2</sup>
Water	\$0 <sup>2</sup>
Police	\$10,105
Fire/EMC	\$6,063
Schools	\$0 <sup>2</sup>
Library	\$23,392
Parks (PAD Fees)	\$188,125
Civic Center	\$22,661
Corp. Yard	\$22,145
Other Public Facilities	\$4,687
<b>Total</b>	<b>\$568,288</b>

The Vista Mother Miguel subdivision is anticipated to coincide with Phase 2 of the San Miguel Ranch project.

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<sup>2</sup> No City-imposed Development Impact Fee program in place for this facility.



## **4.2 INTRODUCTION**

## **4.2 INTRODUCTION**

### **4.2.1 Overview**

The City of Chula Vista has looked comprehensively at issues dealing with development and the additional impacts it places on public facilities and services. The approval of the Threshold Ordinance and the General Plan update were the first steps in the overall process of addressing growth related issues. The second step in this process was the development and adoption of a specific Growth Management Element which set the stage for the creation of the City's Growth Management Program.

The Chula Vista City Council adopted the Growth Management Program and Implementing Ordinance No. 2448 on May 28, 1991. These documents implement the Growth Management Element of the General Plan, and establish a foundation for carrying out the development policies of the City by directing and coordinating future growth in order to guarantee the timely provision of public facilities and services.

The Growth Management Ordinance requires a Public Facilities Finance Plan (PFFP) to be prepared for future development projects requiring a Sectional Planning Area (SPA) Plan or Tentative Map. The contents of the PFFP are governed by Section 19.09.060 of the Municipal Code which requires that the plan show how and when the public facilities and services identified in the Growth Management Program will be installed or financed.

### **4.2.2 Purpose**

The purpose of the Public Facilities Finance Plan is to implement the City's Growth Management Program and to meet the General Plan goals and objectives as well as the Growth Management Element goals and objectives. The Chula Vista Growth Management Program implements the City's General Plan and Zoning Ordinance by ensuring that development occurs only when necessary public facilities and services exist or are provided concurrent with the demands of new development.

### **4.2.3 Growth Management Threshold Standards**

City Council Resolution No. 13346 identified eleven (11) public facilities and services with related threshold standards and implementation measures. These public facilities and services were listed in a policy statement dated November 17, 1987 and have subsequently been refined based on recommendations from the Growth Management Oversight Commission (GMOC).

The 11 public facilities and services include:

- Traffic
- Police
- Fire/EMS

- 
- Schools
  - Libraries
  - Parks and Recreation
  - Water
  - Sewer
  - Drainage
  - Air Quality
  - Fiscal

During development of the Growth Management Program two new facilities were added to the list of facilities to be analyzed in the PFFP:

- Civic Facilities
- Corporation Yard

Threshold standards are used to identify when new or upgraded public facilities are needed to mitigate the impacts of new development. Development approvals will not be made unless compliance with these standards can be met. These threshold standards have been prepared to guarantee that public facilities or infrastructure improvements will keep pace with the demands of growth

#### **4.2.4 The San Miguel Ranch Project**

The San Miguel Ranch SPA is located in the eastern portion of the Chula Vista City limits. The undeveloped 2,590-acre site is located adjacent to the northeastern border of the City of Chula Vista in what is currently unincorporated area of San Diego County, but within the Sphere of Influence of the City of Chula Vista. Proctor Valley Road bounds the property on the west and south, San Miguel Mountain on the east and Sweetwater Reservoir on the north. Figure 1 illustrates the location of San Miguel Ranch and its proximity to major roads and surrounding landmarks.

The project site is separated into the North and South Parcels by the SDG&E Miguel Substation and associated transmission lines. A utility power line corridor runs between the North and South Parcels

#### **4.2.5 The Vista Mother Miguel Subdivision**

The Vista Mother Miguel subdivision is located in the eastern portion of the Chula Vista City limits. The undeveloped 10.1-acre site is located adjacent to the northern border of the San Miguel Ranch project in what is currently unincorporated area of San Diego County, but within the Sphere of Influence of the City of Chula Vista. Figure 1A illustrates the location of Vista Mother Miguel (Mother Miguel Estates) subdivision and its proximity to surrounding landmarks.

### 4.2.6 Public Facilities Finance Plan Boundaries

Section 19.12.070 of the Municipal Code requires that the boundaries of the PFFP be established by the City at the time a SPA Plan or Tentative Map is submitted by the applicant. The boundaries shall be based upon the impact created by the Project on the existing and future need for facilities. The project boundaries will correlate the proposed development project with existing and future development proposed for the area of impact to provide for the economically efficient and timely installation of both onsite and offsite facilities and improvements required by the development. In establishing the boundaries for the PFFP, the City shall be guided by the following considerations:

1. Service areas, drainage, sewer basins, and pressure zones which serve the Project;
2. Extent to which facilities or improvements are in place or available;
3. Ownership of property;
4. Project impact on public facilities relationships, especially the impact on the City's planned major circulation network;
5. Special district service territories;
6. Approved fire, drainage, sewer, or other facilities or improvement master plans

The boundaries of the PFFP for the San Miguel Ranch project are congruent with the Sectional Planning Area (SPA) Plan boundaries and, in addition, include the 10.1-acre Vista Mother Miguel subdivision. Also, the PFFP addresses certain facilities (streets, drainage, sewer, police, fire, etc.) which are impacted beyond the boundaries of the SPA Plan. The boundaries of the SPA Plan include the North Parcel which is part of an ecological reserve, devoted to the preservation and protection of sensitive species and habitat and the South Parcel which is the development area for the San Miguel Ranch community.

# VICINITY MAP

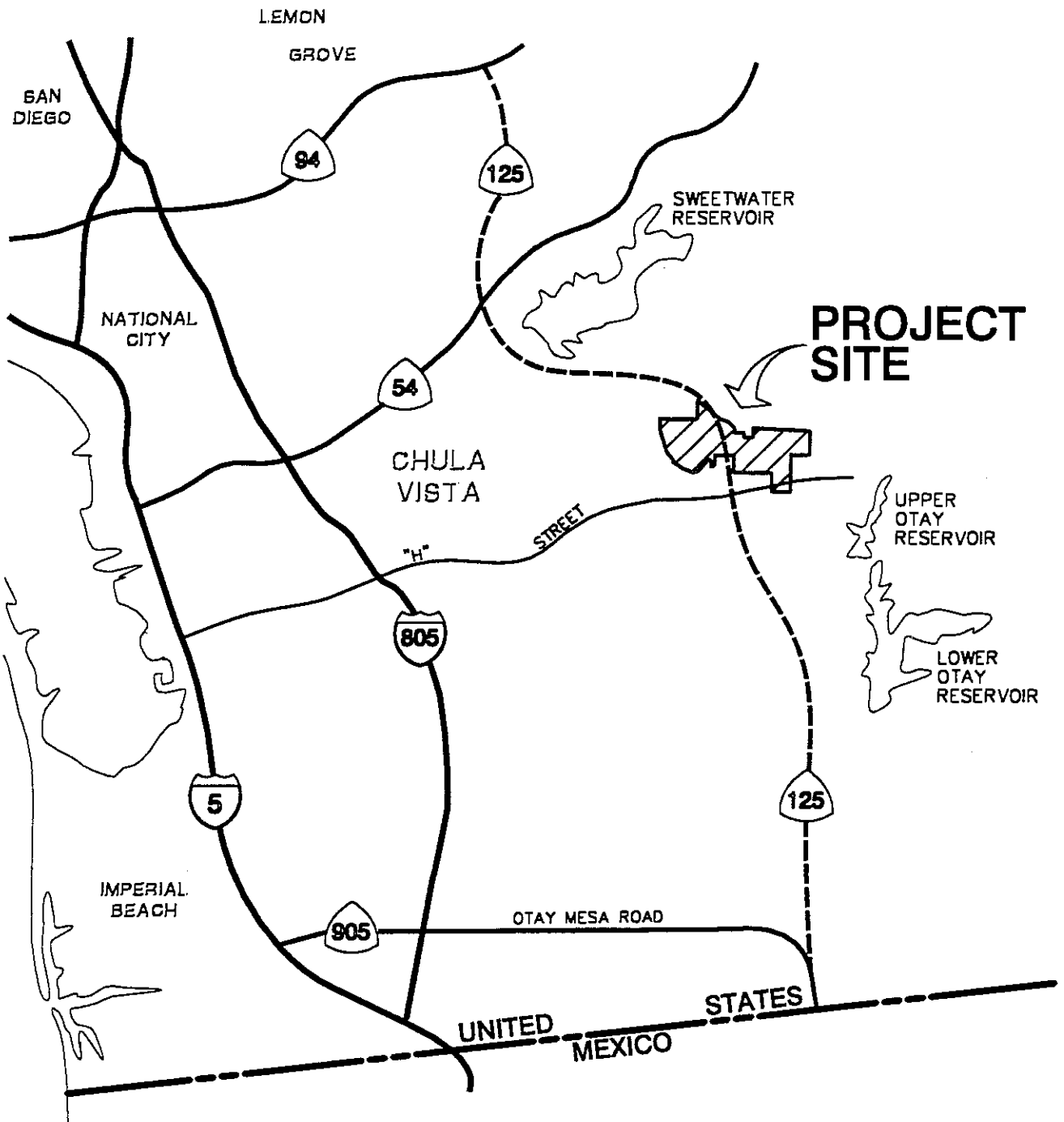
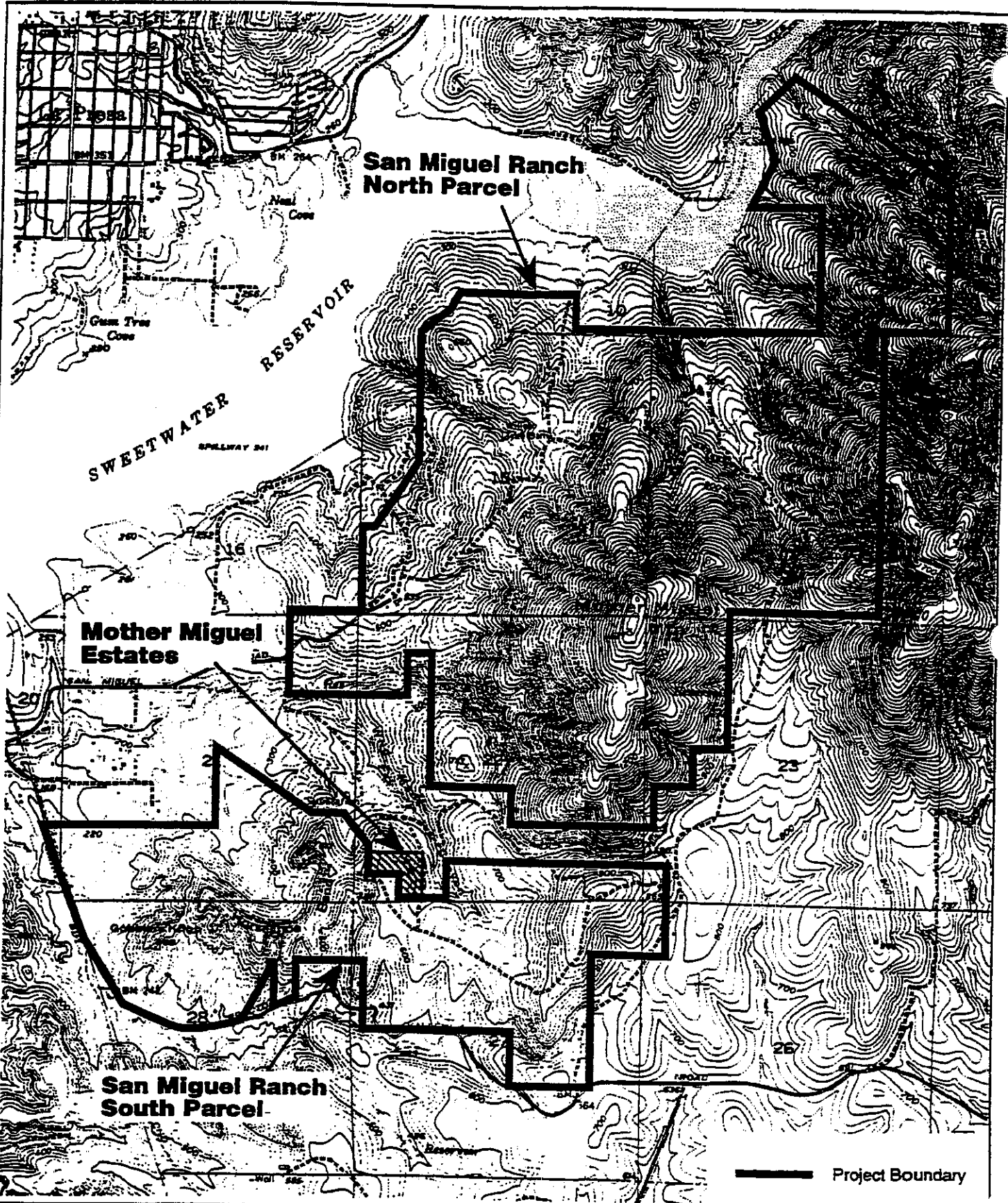


Figure 1



Project Boundary



TETRA TECH INC.



4.2 - 6

Project Setting

Figure 1A

## **4.3 LAND USE ASSUMPTIONS**

## **4.3 LAND USE ASSUMPTIONS**

### **4.3.1 Purpose**

The purpose of this section of the PFFP is to quantify how the San Miguel Ranch project and the Vista Mother Miguel subdivision will be analyzed in relationship to all other projects which are at some stage in the City's development process. The Growth Management Program addressed the issue of development phasing in relationship to location, timing, and fiscal/economic considerations.

Based upon the overall elements to be considered when projecting the phasing of development and policies contained in the Growth Management Program, the City was able to forecast where and when development will take place and produced a 5 to 7 year Development Phasing Forecast. Since the approval of the Growth Management Program, the development phasing forecast has been updated and will be updated periodically as facility improvements are made and the capacity for new development becomes available.

The specific factors which affect the development phasing forecast include the status of development approvals and binding development agreements, and the future construction of State Route 125. These components were reviewed as part of this PFFP in conjunction with the requirement to provide facilities and services, concurrent with the demand created by the San Miguel Ranch project and Vista Mother Miguel subdivision, to maintain compliance with the threshold standards.

The management of future growth includes increased coordination of activities of the various City departments as well as with both School Districts and Water Districts which serve the City of Chula Vista. The development phasing forecast enables the City to prioritize and maximize limited staff resources in order to focus efforts on the highest priority projects in the forecast. The development phasing forecast (5 to 7 years) is a method which will be used to effectively and efficiently manage future development.

As indicated in the Growth Management Program, accuracy of the forecast is dependent upon numerous outside influences which affect the overall demand for new development. The first 12 to 18 months of the forecast will be more accurate and subsequent years less accurate due to lower levels of development approval and corresponding agreements to provide public facilities. These later years are subject to change and will become more accurate as development entitlements are obtained and public facilities are guaranteed.

The PFFP for San Miguel Ranch and including the Vista Mother Miguel subdivision will begin analyzing the existing demand for facilities based upon the demand from existing development. Next, the development identified in the development phasing forecast to the year 2005 is added to the existing development category. Then, the PFFP adds the proposed phasing of the San Miguel Ranch project and the Vista Mother Miguel subdivision, as shown in the Sectional Planning Area (SPA) Plan and subdivision application, to determine the cumulative impacts associated with each phase of the projects.



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### **4.3.2 Existing Development**

As a starting point, the PFFP considers all existing development up to July 1998 as the base condition. This information is based upon City of Chula Vista Planning Department growth management monitoring data. According to this and other data, the population of the City as of January 1998 was estimated to be 162,047. The population west of Interstate 805 was approximately 114,392 and east of I-805 approximately 49,025 using a June 1998 estimate based upon California Department of Finance (DOF) coefficients.

For the purposes of projecting facility demands for the San Miguel Ranch SPA and the Vista Mother Miguel subdivision, the City of Chula Vista utilizes a 1998 population coefficient of 2.975 persons per dwelling unit. This factor is used throughout this Public Facilities Financing Plan to calculate facility demands from approved projects. The coefficient has been confirmed for use in the PFFP by the Planning Department. The same coefficient will be used for calculating the specific San Miguel Ranch project and Vista Mother Miguel subdivision facility demands.

### **4.3.3 Development Phasing Forecast**

A summary of the latest development phasing forecast is shown in Table 3. The table reflects total dwelling units, and industrial and commercial acres remaining for building permit issuance as of July 1, 1997, as well as an estimate of the amount of development activity anticipated to the year 2005 (approx. 5-7 years from 1997).

The total number of dwelling units remaining for building permit issuance to the year 2005 is 13,501 dwelling units. Additionally, there were 161.4 acres of industrial and 53.2 acres of commercial land remaining for permit issuance in the year 2005 category. It should be noted that these projects are used for analytical purposes only and unless a development agreement or other legal instrument guarantees facility capacity, some projects with varying levels of entitlement may not have committed capacity.

### **4.3.4 San Miguel Ranch Development Summary**

The San Miguel Ranch project is proposed to include a total of 1,394 residential dwelling units and other land uses constructed in four (4) phases as shown in Figures 2 and 3 and in Table 5 on the following pages.

Also included within the project are 14.3 gross acres of commercial uses, 21.6 gross acres of public parks, a 13.7-acre elementary school site, 4.6 acres for community purpose facilities, 244.3 acres of open space, 77.9 acres of major circulation facilities including SR-125 right-of-way, and 6.3 acres for SDG&E easements.

### **4.3.5 Vista Mother Miguel Subdivision Summary**

The Vista Mother Miguel subdivision is proposed to include a total of 43 residential dwelling units constructed in a single phase as shown in Figures 2 and 3 and in Table 6 on the following pages. No other land uses are proposed within the subdivision.

**Table 4  
Development Phasing Forecast (5 to 7 Years) Summary**

Development	Assessment District Number	Tract Number	Dwelling Units Remaining on 7-1-98	Industrial Acres Remaining on 7-1-98	Commercial Acres Remaining on 7-1-98	Units to Year 2005	Commercial Acres to Year 2005	Industrial Acres to Year 2005
Rancho Del Rey I	87-1	88-1	54	15.9	15.7	54		
EastLake I/BP Phase I	88-1	84-9	0	58.8				58.8
EastLake I/BP Phase II	88-1			102.6				102.6
Corona Vista		87-1	2			2		
Olympic T. C. <sup>3</sup>	90-3	90-5						
Rancho Del Rey II	87-1	89-5	285			285		
Rancho Del Rey Business Ctr.	87-1			14.5	10.3		10.3	
Salt Creek I (Rancho La Cuesta)	90-1	89-9	0			0		
Salt Creek Ra. (Rolling Hills Ra.)		92-2	2609			1310		
Telegraph Cyn. Estates		93-3	89			89		
EastLake Greens <sup>4</sup>	90-3, 94-1	88-3	847		87	847		
Sunbow II		87-8	1949	46	11	1055	5	
EastLake Village Ctr.	90-3	84-9	0		75.7		37.9	
Brehm Terra Nova (Sanibelle)		89-14	20			20		
Vista Mother Miguel			43			43		
Rancho Del Rey III		90-2	823			823		
EastLake Trails			1143			865		
EastLake III Vistas			1092			433		
EastLake Land Swap			653			250		
East Palomar Estates			7			7		
Bonita Meadows			263			100		
Otay Ranch	97-2		16792			7318		
Otay Valley Rd. Redev.		several		123.4				
		<b>Totals</b>	<b>26,671</b>	<b>361.2</b>	<b>199.7</b>	<b>13,501</b>	<b>53.2</b>	<b>161.4</b>

<sup>3</sup> OTC map includes 300 beds for athletes.

<sup>4</sup> Unit figures based on entitlements of the original Tentative Map #88-3 (2774 units), and the July, 1994, amendment to the TM (#88-3A) which added 97 units. Also includes development for area designated as "EastLake Greens Landswap."

# LEGEND



TYPICAL STREET LAYOUT

TYPICAL PLANNING AREA

TYPICAL PLANNING AREA DESIGNATION

PLANNING AREA	PRODUCT TYPE / USE	LAND USE DISTRICT	GROSS ACRES	DU'S	DU'S/AC
<b>RESIDENTIAL LAND USES</b>					
Res - Low (0-3 du/ac)					
L	SFD	SFE	62.2	73	1.2
K	SFD	SFE	60.5	84	1.4
Subtotal			122.7	157	1.3
Low-Med (3-6 du/ac)					
J	SFD	SF-1	50.5	162	3.2
H	SFD	SF-3	33.2	131	3.9
I	SFD	SF-2	31.7	107	3.4
C	SFA/SFD	SFA	13.1	110	8.4
D	SFA/SFD	SF-5	22.9	116	5.1
F	SFD	SF-3	12.7	46	3.6
Subtotal			164.1	672	4.1
Med (6-11 du/ac)					
B	SFA/MF	SFA	11.4	219	19.2
E	SFD	SF-4	29.7	144	4.8
G	SFD	SF-3	21.8	73	3.3
Subtotal			62.9	436	6.9
Med-High (11-18 du/ac)					
A	MF	MF	7.2	129	17.9
Subtotal			7.2	129	17.9
<b>Residential Total</b>			<b>356.9</b>	<b>1394</b>	<b>3.9</b>
<b>NON-RESIDENTIAL LAND USES</b>					
N	COMMERCIAL USES*	CR	14.3	--	--
S	SCHOOL SITE	ES	13.7	--	--
M	INSTITUTIONAL USES	CPF***	4.6	--	--
OS1-9	OPEN SPACE USES	OS-TR & PR	244.3	--	--
E-1	SDG&E EASEMENTS	OS	6.3	--	--
CP	COMMUNITY PARK	CP/CPF****	21.6	--	--
NP	NEIGHBORHOOD PARK	NP	3.5	--	--
SR-125	SR - 125	--	49.6	--	--
	STREETS	--	28.3	--	--
<b>Non-Residential Total*</b>			<b>386.2</b>	--	--
<b>Total Acreage</b>			<b>743.1</b>	--	--

\* Includes Pacific Bay Homes Parcel (4.35 acres)  
 \*\* Streets include Mount Miguel Road, Proctor Valley Road and the extension of East H Street as Proctor Valley Road.  
 \*\*\* This site shall provide between 3.0 and 3.5 net useable acres. Any changes necessary in the gross acreage envelope of Planning Area "M" would be taken from the adjacent open space and will be identified at the Tentative Map level.  
 \*\*\*\* A portion of the project's required net useable acres for community purpose facilities will be provided within an expanded net useable community park site. The provision of this additional park acreage may require some area from Planning Areas H and/or I, which will be identified at the Tentative Map level

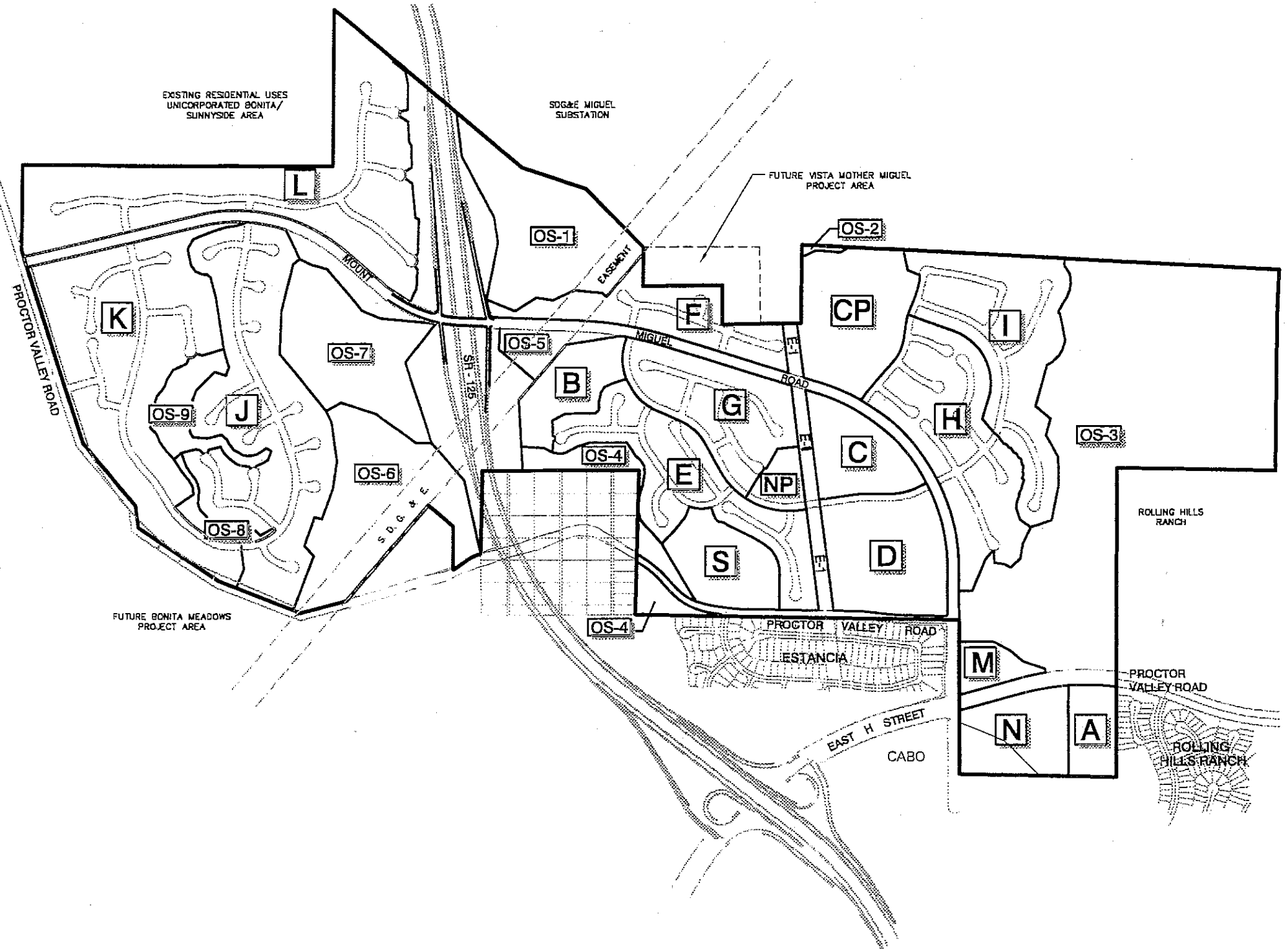
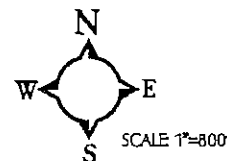


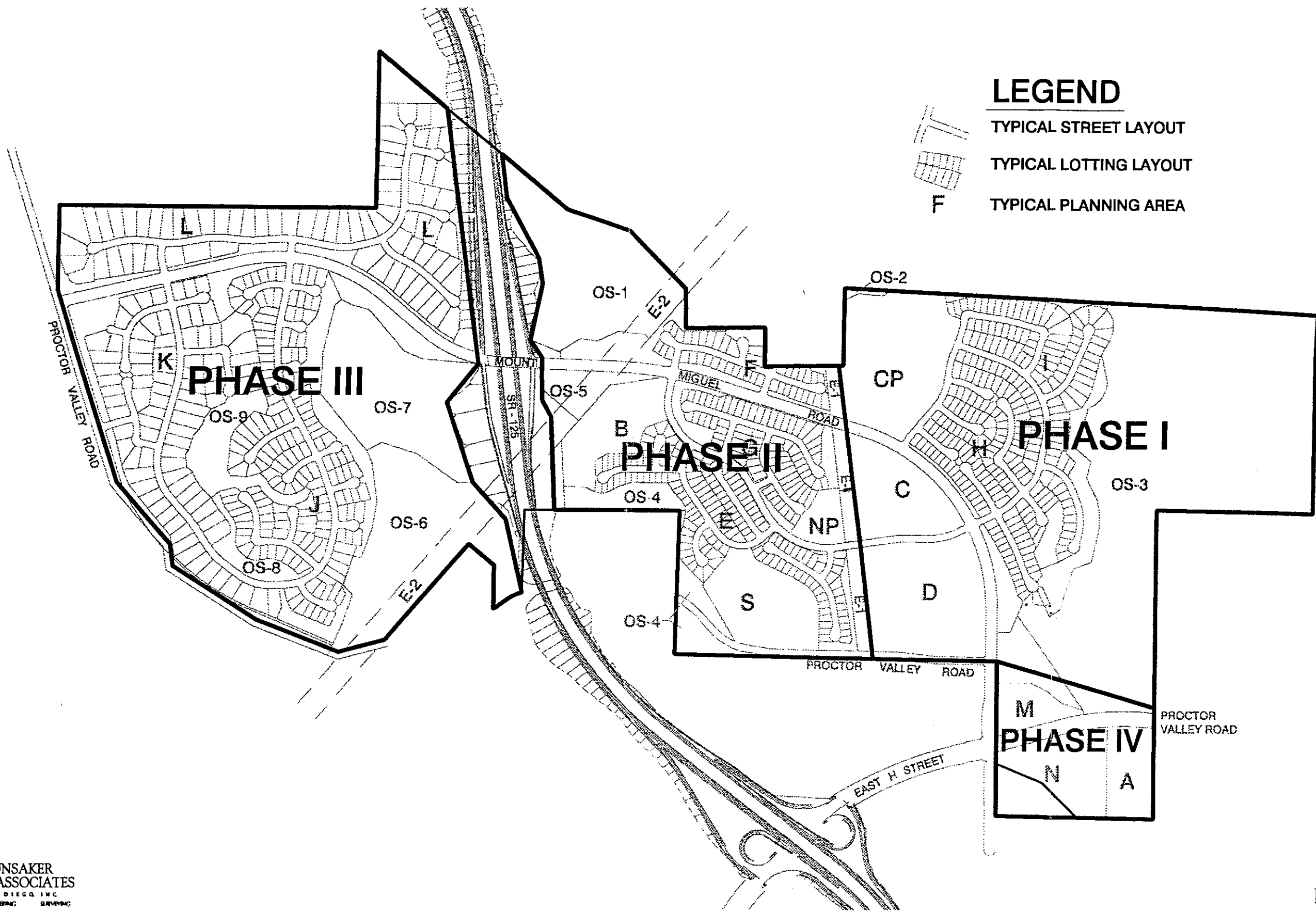
Figure 2

# San Miguel Ranch



# SITE UTILIZATION PLAN

As Amended April 1, 2003



**Table 4A  
Land Use Summary Table  
San Miguel Ranch SPA Plan**

<i>PROPOSED USE</i>	<i>GDP DESIGNATION</i>	<i>SPA DISTRICT</i>	<i>PRODUCT TYPE</i>	<i>GROSS ACRES</i>	<i>DU'S</i>	<i>DU'S/AC</i>
<b>RESIDENTIAL LAND USES</b>						
<i>Residential - Low (0-3 du/ac)</i>						
	L-a	L	SFD	62.2	73	1.2
	L-b	K	SFD	60.5	84	1.4
<b>Subtotal</b>				<b>122.7</b>	<b>157</b>	<b>1.3</b>
<i>Residential - Low-Medium (3-6 du/ac)</i>						
	LM-1	J	SFD	50.5	162	3.2
	LM-2	H	SFD	33.2	131	3.9
	LM-2	I	SFD	31.7	107	3.4
	LM-3	C	SFA/SFD	13.1	110	8.4
	LM-3	D	SFA/SFD	22.9	116	5.1
	LM-4	F	SFD	12.7	46	3.6
<b>Subtotal</b>				<b>164.1</b>	<b>672</b>	<b>4.1</b>
<i>Residential - Medium (6-11 du/ac)</i>						
	M	B	SFA/MF	11.4	219	19.2
	M	E	SFD	29.7	144	4.8
	M	G	SFD	21.8	73	3.3
<b>Subtotal</b>				<b>62.9</b>	<b>436</b>	<b>6.9</b>
<i>Residential - Medium-High (11-18 du/ac)</i>						
	MH	A	MF	7.2	129	17.9
<b>Subtotal</b>				<b>7.2</b>	<b>129</b>	<b>17.9</b>
<b>RESIDENTIAL TOTAL</b>				<b>356.9</b>	<b>1394</b>	<b>3.9</b>
<b>NON-RESIDENTIAL LAND USES</b>						
COMMERCIAL USES*	RC	N		14.3	--	--
INSTITUTIONAL USES	ES	S		13.7	--	--
INSTITUTIONAL USES	CS	M		4.6***	--	--
OPEN SPACE USES	OS (South)	OS1-8		244.3	--	--
SDG&E EASEMENTS	E	E-1		6.3	--	--
COMMUNITY PARK	CP	CP		21.6****	--	--
NEIGHBORHOOD PARK	M	NP		3.5	--	--
CIRCULATION USES	125 ROW	SR-125		49.6	--	--
CIRCULATION USES	Major Streets**	--		28.3	--	--
<b>NON-RESIDENTIAL TOTAL*</b>				<b>386.2</b>	<b>--</b>	<b>--</b>
<b>Grand Total**</b>				<b>743.1</b>	<b>--</b>	<b>--</b>

\* Includes Pacific Bay Homes Parcel (4.35 acres)

\*\* Streets include Mount Miguel Road, Proctor Valley Road and the extension of East H Street as Proctor Valley Road

\*\*\* This site shall provide between 3.0 and 3.5 net usable acres. Any changes necessary in the gross acreage envelope of Planning Area "M" would be taken from the adjacent open space and will be identified at the Tentative Map level.

\*\*\*\* A portion of the project's required net usable acres for community purpose facilities will be provided within an expanded net usable community park site. The provision of this additional park acreage may require some area from Planning Areas H and/or I, which will be identified at the Tentative Map level.

Land Use Assumptions

Table 5 San Miguel Ranch Phasing and Site Utilization Plan						
Land Use	Phases				Dwelling Units	Traffic EDU's
	1	2	3	4		
<b>Residential DU's</b>						
SPA District						
A				129	129	77.4
B		219			219	131.4
C	110				110	110
D	116				116	116
E		144			144	144
F		46			46	46
G		73			73	73
H	131				131	131
I	107				107	107
J			162		162	162
K			84		84	84
L			73		73	73
<b>Total Residential Units</b>	<b>464</b>	<b>482</b>	<b>319</b>	<b>129</b>	<b>1,394</b>	<b>1,255</b>
<b>Nonresidential Acres</b>					<b>Acres</b>	<b>EDU's</b>
(N)Commercial Acres				14.3	14.3	357.5
(CP) Community Park Acres	21.6				21.6	0
(NP) Neighborhood Park Acres		3.5			3.5	0
(S) School Site Acres		13.7			13.7	0
(M) CPTI Comm. Purpose Site Acres				4.6	4.6	0
<b>Total Nonresidential Acres</b>	<b>21.6</b>	<b>17.2</b>	<b>0</b>	<b>18.9</b>	<b>43.4</b>	<b>357.5</b>
					<b>Total EDU's</b>	<b>1,612.3</b>

Table 6 Vista Mother Miguel Subdivision Phasing and Site Utilization Plan			
Land Use	Phase	Dwelling Units	Traffic EDU's
Single Family Detached	1	43	43

4.3.6 Equivalent Dwelling Units

Transportation

The following equivalent dwelling unit (EDU's) apply to the calculation of development impact fees for Eastern Territories transportation improvements and for Interim Pre-SR-125 facilities

**Land Use Assumptions**

Table 5 San Miguel Ranch Phasing and Site Utilization Plan						
Land Use	Phases				Dwelling Units	Traffic EDU's
	1	2	3	4		
<b>Residential DU's</b>						
SPA District						
A				129	129	77.4
B		219			219	131.4
C	110				110	110
D	116				116	116
E		144			144	144
F		46			46	46
G		73			73	73
H	131				131	131
I	107				107	107
J			162		162	162
K			84		84	84
L			73		73	73
<b>Total Residential Units</b>	<b>464</b>	<b>482</b>	<b>319</b>	<b>129</b>	<b>1,394</b>	<b>1,255</b>
<b>Nonresidential Acres</b>					<b>Acres</b>	<b>EDU's</b>
(N)Commercial Acres				14.3	14.3	357.5
(CP) Community Park Acres	21.6				21.6	0
(NP) Neighborhood Park Acres		3.5			3.5	0
(S) School Site Acres		13.7			13.7	0
(M) CPI Comm. Purpose Site Acres				4.6	4.6	0
<b>Total Nonresidential Acres</b>	<b>21.6</b>	<b>17.2</b>	<b>0</b>	<b>18.9</b>	<b>43.4</b>	<b>357.5</b>
					<b>Total EDU's</b>	<b>1,612.3</b>

Table 6 Vista Mother Miguel Subdivision Phasing and Site Utilization Plan			
Land Use	Phase	Dwelling Units	Traffic EDU's
Single Family Detached	1	43	43

**4.3.6 Equivalent Dwelling Units**

**Transportation**

The following equivalent dwelling unit (EDU's) apply to the calculation of development impact fees for Eastern Territories transportation improvements and for Interim Pre-SR-125 facilities.

The Transportation Development Impact Fee scheduled for adoption by the City Council on June 22, 1999 is \$5,846 per EDU. Each new single family detached dwelling shall be considered one EDU for the purposes of this fee. A single family attached dwelling shall be 0.8 EDU's. A unit within a multi-family dwelling shall be considered 0.6 EDU's. Commercial/Office (under five stories in height) shall be charged at the rate of 25.0 EDU's per gross acre of land while Industrial is 15.0 EDU's per acre.

The current Interim Pre-SR-125 Development Impact Fee is \$820 per EDU. The same EDU rates apply to the Interim Pre-SR-125 Development Impact Fee as for the Transportation Development Impact Fee.

Land Use	DU's	EDU's by Phase				Total EDU's
		Phase 1	Phase 2	Phase 3	Phase 4	
SFR-DETACHED	1,063.0	489.0	254.0	320.0	0.0	1,063.0
SFR-ATTACHED	0.0	0.0	0.0	0.0	0.0	0.0
MFR	331.0	0.0	130.8	0.0	67.8	198.6
COMMERCIAL		0.0	0.0	0.0	357.5	0.0
<b>EDU's/PHASE</b>	<b>1,394.0</b>	<b>489.0</b>	<b>384.8</b>	<b>320.0</b>	<b>425.3</b>	<b>1,619.1</b>

Land Use	DU's	Phase 1	Total EDU's
Single Family Detached	43	43	43

**Public Facilities**

The following table of equivalent dwelling units (EDU's) applies to the calculation of impact fees in accordance with Ordinance 2554 for public facilities. The current Public Facilities Development Impact Fee is \$2,150 per EDU. The fee funds, in part, the following facilities:

1. Civic Center Expansion	\$ 527
2. Police Facility and Equipment	\$ 235
3. Corporation Yard Relocation	\$ 515
4. Libraries	\$ 544
5. Fire Suppression System	\$ 141
6. GIS	\$ 49
7. Computer Systems	\$ 23
8. Telecommunications	\$ 32
9. Records Management System	\$ 5
<i>Subtotal</i>	<u>\$2,071</u>
10. PFDIF Administration	<u>\$ 79</u>
<b>Total</b>	<b>\$2,150</b>



## Land Use Assumptions

Each new single family detached dwelling, single family attached dwelling, or unit within a multi-family dwelling in a Development Project shall be considered one EDU for purposes of this fee. Commercial/Office and Industrial development Projects shall be charged at the rate of 5.00 EDU's per gross acre of land. The EDU rate for each CPF use shall be charged at the rate of 3 EDU's per gross acre of land.

The calculations of PFDIF due for each facility addressed in the following sections of this report do not include the \$79 amount for "administration." However, this amount is collected as part of the \$2,150 fee per EDU.

Land Use	EDU's by Phase				Totals
	Phase 1	Phase 2	Phase 3	Phase 4	
Residential	489.0	472.0	320.0	113.0	1,394.0
Commercial	0.0	0.0	0.0	71.5	71.5
CPF	0.0	0.0	0.0	13.8	13.8
<b>EDU's/PHASE</b>	<b>489.0</b>	<b>472.0</b>	<b>320.0</b>	<b>198.3</b>	<b>1,479.3</b>

Land Use	DU's	Phase 1	Total EDU's
Single Family Detached	43	43	43

## 4.4 FACILITY ANALYSIS

## Facility Analysis

### 4.4 FACILITY ANALYSIS

This portion of the PFFP contains 13 separate subsections for each facility addressed by this report. Of the 13 facilities, 11 have adopted threshold standards, except Civic Center and Corporation Yard.

The following figure highlights the level of analysis for each facility:

Facility	Level of Analysis			
	Citywide	East of I-805	Service Area Sub-basin	Special District
Traffic	✓	✓		
Police	✓			
Fire/EMS	✓		✓	
Schools				✓
Libraries	✓			
Parks & Recreation		✓		
Water			✓	✓
Sewer			✓	
Drainage			✓	
Air Quality	✓			
Fiscal <sup>5</sup>	✓		✓	
Civic Center <sup>6</sup>				
Corporation Yard <sup>2</sup>				

Each subsection analyzes the impact of the San Miguel Ranch Project and the Vista Mother Miguel subdivision based upon the adopted Quality of Life Standards. The analysis is based upon the specific goal, objective, threshold standard and implementation measures. The current master plan or documents which are being used in place of a completed master plan is used to determine facility adequacy and is referenced within the facility section.

Each analysis is based upon the specific project processing requirements for that facility, as adopted in the Growth Management Program. These indicate the requirements for evaluating the project consistency with the threshold ordinance at various stages (General

<sup>5</sup> Fiscal is analyzed on a project-by-project basis

<sup>6</sup> Specific Threshold Standards have not been developed for these facilities

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Development Plan, Sectional Planning Area Plan/Public Facilities Finance Plan, Tentative Map, Final Map and Building Permit) in the development review process.

A service analysis section is included which identifies the service provided by each facility. An existing facilities inventory is included along with those future improvements which will be required through the conditioning of future forecasted development projects or are scheduled to be made in the City's adopted Capital Improvement Budget.

The existing plus forecasted demands for the specific facility are identified in the subsection based upon the adopted threshold standard.

Each facility subsection contains an adequacy analysis followed by a detailed discussion indicating how the facility is to be financed. The adequacy analysis provides a determination of whether or not the threshold standard is being met and the finance section provides a determination if funds are available to guarantee the improvement. If the threshold standard is not being met, mitigation is recommended in the Threshold Compliance and Recommendations subsection which proposes the appropriate conditions or mitigation to bring the facility into conformance with the threshold standard.

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#### **4.4.1 TRAFFIC**

## **4.4.1 TRAFFIC**

### **4.4.1.1 Threshold Standard**

1. Citywide: Maintain Level of Service (LOS) "C" or better, as measured by observed average travel speed on all signalized arterial segments except that during peak hours a LOS of "D" can occur for no more than any two hours of the day
2. West of Interstate 805: Those signalized intersections which do not meet the standard above may continue to operate at their current LOS, but shall not worsen.

### **4.4.1.2 Level Of Service (LOS) Definition**

The level of service (LOS) concept is based on the degree of traffic congestion, delay, or interference from other vehicles experienced by motorists. Six levels of services (LOS) have been defined varying from A (free flow) to F (severe congestion). While the precise LOS definitions differ by functional classification and intersection type, LOS standards offer a consistent and readily comprehensible method for evaluating and comparing traffic conditions. In general, the LOS definitions are as follows:

<u>Level of Service</u>	<u>Traffic Flow Quality</u>
<b>A</b>	Low volumes, high speed; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.
<b>B</b>	Operating speed beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods.
<b>C</b>	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard
<b>D</b>	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.
<b>E</b>	Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.
<b>F</b>	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume may be less than volumes which occurs at Level of Service E.

### 4.4.1.3 Freeway Segment Level Of Service Standards and Thresholds

The analysis of freeway segment level of service is based on the procedure developed by Caltrans District 11, which is based on methods described in the *1965 Highway Capacity Manual*. This procedure is used for long-range planning purposes because the methods described in the *1994 Highway Capacity Manual* are extremely data intensive, and much of the required data is unavailable. The procedure for calculating freeway LOS involves the estimation of volume to capacity (V/C) ratio using the following equation:

$$V/C = \frac{((Daily\ Volume * Peak\ Hour\ Percent * Directional\ Factor) / Truck\ Factor)}{Capacity}$$

- where:
- Daily Volume* = Average Daily Traffic (ADT)
  - Peak Hour Percent* = Percentage of ADT occurring during the peak hour.
  - Directional Factor* = Percentage of peak hour traffic occurring in peak direction of travel.
  - Truck Factor* = Truck/terrain factor to represent influence of heavy vehicles and grades.
  - Capacity* = 2,200 vehicles/lane/hour for 4-lane freeways, and 2,300 vehicles/lane/hour for 6-lane or more freeways

The resulting V/C is then compared to accepted ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in Table 11. The corresponding level of service represents an approximation of existing or anticipated future freeway operating condition in the peak direction of travel during the peak hour. While Caltrans and the SANDAG Regional Growth Management Strategy (RGMS) recommend LOS D or better as acceptable for freeways, the SANDAG Congestion Management Program (CMP) sets LOS E as the threshold standard. This LOS E is used as the threshold of significance because a decrease from this level of service to LOS F determines the need to develop a freeway Deficiency Plan.

**Table 11**  
**Caltrans District 11 Freeway Segment Level of Service Definitions**

#### Level of Service (LOS) Definitions

The concept of LOS is defined as a qualitative measure describing operational conditions within a traffic stream, and the motorist's and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety. Levels of service for freeway segments can generally be categorized as follows:

<u>LOS</u>	<u>V/C</u>	<u>Congestion/Delay</u>	<u>Traffic Description</u>
<i>(Used for freeways, expressways and conventional highways)</i>			
"A"	<0.41	None	Free flow.



## Traffic

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<u>LOS</u>	<u>V/C</u>	<u>Congestion/Delay</u>	<u>Traffic Description</u>
"B"	0.42-0.62	None	Free to stable flow, light to moderate volumes.
"C"	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
<i>(Used for conventional highways)</i>			
"F"	<1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.
<i>(Used for freeways and expressways)</i>			
"F(0)"	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
"F(1)"	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues.
"F(2)"	1.36-1.45	Very Severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
"F(3)"	>1.46	Extremely Severe 3+ hours of delay	Gridlock

SOURCE Caltrans 1992

### 4.4.1.4 Arterial Roadway Segment Level of Service Standards and Thresholds

This section presents the level of service standards and thresholds utilized by the City of Chula Vista and the County of San Diego to analyze arterial roadway segment performance. The analysis of roadway segment level of service is based on the functional classification of the roadway, the maximum desired level of service capacity, roadway geometrics, and the existing or forecasted average daily traffic (ADT) volume. Table 12 presents the City of Chula Vista segment capacity and level of service standards for arterial roadways.

**Table 12**  
**City of Chula Vista**  
**Segment Capacity and Level of Service Standards Average Daily Traffic Volumes**

Functional Classification	Level of Service				
	A	B	C	D	E
Expressway (6-lane)	52,500	61,300	70,000	78,800	87,500
Prime Arterial (6-lane)	37,500	43,800	50,000	56,300	62,500
Major Street (6-lane)	30,000	35,000	40,000	45,000	50,000
Major Street (4-lane)	22,500	26,300	30,000	33,800	37,500
Class I Collector (4-lane)	16,500	19,300	22,000	24,800	27,500
Class II Collector (3-lane)	9,000	10,500	12,000	13,500	15,000
Class III Collector (2-lane)	5,600	6,600	7,500	8,400	9,400

*SOURCE: City of Chula Vista Street Design Standards Policy (July 1991)*

The City of Chula Vista General Plan Circulation Element recommends LOS C or better as acceptable for arterial roadway segment ADT volumes. These standards are generally used as long-range planning guidelines to determine the functional classification of roadways and maintain a quality circulation system for Southbay residents under ultimate, build-out conditions. It should be recognized that the actual functional capacity of roadway facilities vary by the actual characteristics which exist on each facility under review. Typically, the performance and LOS of a roadway segment is based on the ability of arterial intersections to accommodate peak hour volumes. Special designs of intersections to achieve acceptable levels of service and lower levels of approach delay could result in higher capacities than those shown in Table 12. For the purposes of the transportation analysis, LOS D is considered acceptable under Existing and Interim Conditions (Years 2000, 2005 and 2010) for roadway segments within the jurisdiction of the City of Chula Vista, assuming adjacent intersection performance is acceptable. While the goal of the City of Chula Vista is to achieve LOS D for no more than two hours of any day, it is assumed that if peak hour intersections operate at LOS D or better during peak hours, then the roadway segments whose flow they control will also operate at LOS D for no more than two peak hours out of the day. Thus, LOS D is used as the acceptable threshold standard in the transportation analysis due to the fact that the transportation network in the interim time frame is partially constructed and the geographic distribution of trip activity is limited. There will be a lack of balance in the assignment of traffic prior to the construction of the full General Plan Circulation Element in the southeastern portion of the General Plan Area.

The County of San Diego has also established standard street classification and level of service standards, and recommends LOS C as acceptable for on-site circulation roadways. The County *Public Facility Element* indicates that new development shall provide off-site improvements designed to contribute to the overall achievement of LOS D. Thus,

LOS D is used as the acceptable threshold standard in the transportation study for roadway segments within the County of San Diego’s jurisdiction. Table 13 presents the County standards and segment capacities in terms of ADI volumes. San Diego County roadway segment capacity standards are generally lower than those for surrounding South Bay cities with the exception of the four-lane collector facility (County LOS D threshold is 30,800 vpd; City of Chula Vista LOS D threshold is 24,800 vpd). This is due to the fact that the majority of County roadway facilities are typically located in fairly rural areas and may experience less side friction and have fewer traffic signals per mile.

**Table 13  
County of San Diego  
Segment Capacity and Level of Service Standards Average Daily Traffic Volumes**

Functional Classification	Level of Service				
	A	B	C	D	E
Prime Arterial	22,200	37,000	44,600	50,000	57,000
Major Road (4-lane)	14,800	24,700	29,600	33,400	37,000
Collector (4-lane)	13,700	22,800	27,400	30,800	34,200
Light Collector (2-lane)	1,900	4,100	7,100	10,900	16,200
Rural Collector (2-lane)	1,900	4,100	7,100	10,900	16,200

*SOURCE: County of San Diego Public Road Standards*

For arterial segment capacity analysis, it is recommended that all Study Area segments be reviewed to determine if the segment would operate under or over the recommended LOS D (County and City) threshold under Existing, Interim (years 2000 and 2005) and Project Build-out Conditions (Year 2010). The Chula Vista Circulation Element, however, recommends achieving LOS C under Southbay Build-out conditions. Daily roadway levels of service are determined by comparing the existing or forecasted ADI volumes under project alternatives and the functional classification of the roadway based on the criteria set forth in Table 13 and 13. Those roadway segments found to operate over the defined LOS threshold are considered to have significant impacts and will require mitigation. Mitigation can take the form of higher functional classification and/or improved intersection geometrics to enhance capacity and operations. Often, mitigation measures to enhance intersection flow are the most critical influence on overall segment performance.

**4.4.1.5 Intersection Level Of Service Standards and Threshold**

This section presents the methodologies used to perform intersection capacity analysis based upon peak hour traffic volumes. The analysis of existing and projected peak hour intersection performance was conducted utilizing the methodology documented in the *1994 Highway Capacity Manual (Transportation Research Board Special Report 209)*. Level of service D or better indicates acceptable operating conditions for signalized intersections during AM and/or PM peak hour conditions. Those intersections found to

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have LOS E or F under future conditions analysis are considered to have significant impacts and will require mitigation.

#### 4.4.1.5.1 Signalized Intersection Screening Methodology

A key transportation tool used in the review of the San Miguel Ranch Project under Full Southbay Build-out conditions was the identification of potential congestion at major roadway intersections based on total entering volumes. It should be recognized that this screening methodology is only applied to Full Southbay Build-out conditions, documented in Chapters 6.0 and 7.0 of the *San Miguel Ranch SPA Transportation Study* prepared by BRW, Inc. and dated August 10, 1998.

Entering volumes are estimated based on the following formula:

$$\frac{\text{Sum of two-way volume forecast on each intersection leg}}{2 \text{ (estimated 50:50 directional split entering and exiting intersection)}} = \text{Total Daily Entering Volume}$$

The City of Chula Vista and County of San Diego have accepted an established planning level limitation on the amount of traffic that may enter an intersection without requiring planning or implementation action. This daily entering volume threshold is intended to provide an indication that special intersection design treatment may be required.

The following categories of daily entering volume conditions represent the screening criteria used to determine intersection impacts for the San Miguel Ranch Proposed Project:

- 65,000 or fewer vehicles per day (vpd) is considered tolerable and standard at-grade intersection design would be adequate to provide acceptable peak hour levels of service.
- 65,000-75,000 entering vpd may require mitigation measures to enhance intersection geometrics and increase capacity. These at-grade intersection design treatments may include unrestricted free right-turn lanes and/or additional through lanes where appropriate.
- 75,000-85,000 entering vpd require the design and implementation of mitigation measures to significantly enhance standard intersection geometrics and increase capacity. These intersection design treatments may include either at-grade solutions or a grade separated solutions.
- Over 85,000 entering vpd requires the design and implementation of mitigation measures to allow the intersection to flow smoothly. Mitigation at this level typically includes partial grade separations and/or fully grade separated design to vertically separate heavy through movements at different grades

At a minimum, it is recommended for all intersections with entering volumes in excess of 65,000 vpd, a detailed analysis of peak hour turning movement volumes and operating conditions be performed. This detailed analysis will confirm the type of mitigation treatment recommended in this analysis to achieve acceptable peak hour levels of service under Full Southbay Build-out Conditions.

#### 4.4.1.5.2 Signalized Intersection Analysis

The analysis of signalized intersections within the study area utilized the operational analysis procedure for signalized intersections as outlined in the *1994 Highway Capacity Manual (HCM), Transportation Research Board Special Report 209*. This method defines level of service in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (vphpl) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e. percentage trucks) and shared lane movements (i.e., through and right-turn movements originating from the same lane). The level of service criteria used for this technique are described in Table 14. The default parameters used in the San Miguel Ranch SPA signalized intersection capacity analysis are provided in Table 14. These parameters were derived from previous traffic studies in Eastern Chula Vista as well as the *1994 Highway Capacity Manual* and have been approved for use in this analysis by the City of Chula Vista.

**Table 14**  
**Signalized Intersection Level of Service**  
**Highway Capacity Manual Operational Analysis Method**

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<5.1	<i>LOS A</i> describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
5.1 - 15.0	<i>LOS B</i> describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
15.1 - 25.0	<i>LOS C</i> describes operations with higher delays which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
25.1 - 40.0	<i>LOS D</i> describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
40.1 - 60.0	<i>LOS E</i> is considered to be the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>60.0	<i>LOS F</i> describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

SOURCE: 1994 Highway Capacity Manual, TRB Special Report 209

**Table 15**  
**San Miguel Ranch SPA Traffic Analysis**  
**Capacity Analysis Methodology**

Preferred Parameter	HCM Default Values	BRW Used
Lane Width	12 Feet	12 Feet
Cycle Length	60 - 120 Seconds	60 - 120 Seconds
Lost Time	3 Seconds	3 Seconds
Yellow & All Red per Phase	4 Seconds	3.5 - 5.0 Seconds
RTOR	-	Nominal or Use of Overlap Phase to Simulate
Area Type	Non-CBD	Non-CBD
Arrival Type	3 or 4	3 or 4
Type of Signal	Pretimed	Actuated
Grade	0 Percent	0 - 3 Percent
Peak Hour Factor (PHF)	0.90	0.85 - 0.95*
Percent Buses	0 Buses/Hr	0-4 Buses/Hr
Percent Heavy Vehicles	2 Percent	2 Percent

## Traffic

Preferred Parameter	HCM Default Values	BRW Used
Pedestrian Button	Yes or No	Yes
Rate (Pedestrian/Hour/Approach)	0	5 - 10
Parking Number (NM)	20 Maneuver/Hour (Where Parking Exists)	None
Saturation Flow	1,900 pcphpl	1,900 pcphpl

SOURCE: Highway Capacity Manual TRB Special Report 209, 1994; BRW, Inc.; February 1998

Note: \* Typically, a mid-point PHF value of 0.90 was applied in the analysis of peak hour intersection operations performance

### 4.4.1.6 Chula Vista Traffic Monitoring Program (TMP)

To adhere to the Growth Management traffic threshold standards, the Public Works Department of the City of Chula Vista evaluates levels of service for arterial roadway segments utilizing the *Highway Capacity Manual* methodology, Chapter 11, based on average travel speeds. The TMP stipulates that the existing level of service on arterial segments in Chula Vista be maintained at LOS C or better, with the exception that LOS D is acceptable on signalized arterial segments for two hours per day maximum. The project's participation in the traffic section of the adopted Growth Management Ordinance as it relates to the City's annual review of network performance is mandated. All major circulation element facilities within the City of Chula Vista are subject to review. Those facilities where traffic volumes have increased by at least 10% since the last review or have experienced a significant change in conditions or are at the upper fringes of LOS C approaching LOS D are included in the annual traffic study, which is reviewed for conformance by the Growth Management Oversight Committee (GMOC). The City of Chula Vista requires the application of these guidelines to the future development of the San Miguel Ranch SPA Project.

Utilization of the arterial and intersection performance standards presented in this chapter and the required adherence to the Growth Management traffic threshold standards will result in full conformance with the requirements of the City of Chula Vista and County of San Diego.

### 4.4.1.7 Service Analysis

The City of Chula Vista through the Public Works Department is responsible for ensuring that traffic improvements are provided to maintain a safe and efficient street system within the City. Through project review, City staff ensures the timely provision of adequate local circulation system capacity in response to planned development while maintaining acceptable levels of service. Planned new roadway segments and signalized intersections will maintain acceptable standards at the build-out of the City's General Plan and Circulation Element.

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The Circulation Element of the General Plan serves as the overall facility master plan. Additionally, the *Eastern Chula Vista Transportation Phasing Plan (ECVTPP)* provides additional information relevant to the phasing of development and necessary improvements required in the area east of Interstate 805.

The traffic analysis report for the San Miguel Ranch project entitled *San Miguel Ranch SPA Transportation Study and Appendices and San Miguel Ranch SPA Transportation Phasing Analysis Technical Report* dated August 10, 1998 was prepared by BRW, Inc., addresses both existing and planned circulation system conditions. The traffic study details necessary improvements and outlines the incremental circulation improvements based upon planned project phasing. The traffic study also includes an evaluation of impacts that are considered significant as a result of project development.

In response to the Chula Vista Engineering Division, a separate traffic capacity analysis entitled *East H Street Focus Capacity Analysis 1999 - 2005* dated June 8, 1999 was prepared by Willdan Associates. The findings of the analysis are reported within this chapter. The analysis documents the performance of East H Street between I-805 and Southwest College Entrance for the interim years (1999 through 2005) before the opening of SR-125 and Olympic Parkway due to the additional trips from the San Miguel Ranch.

#### **4.4.1.8 Project Processing Requirements**

##### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify phased traffic demand and demonstrate compliance with the "Eastern Chula Vista Transportation Phasing Plan."
2. Identify onsite and offsite impacts and improvements by phase of development.
3. Provide cost estimates for all improvements.

#### **4.4.1.9 Existing Conditions**

This section summarizes the operation of the existing transportation network in the San Miguel Ranch Project Study Area for the key freeway segments, local arterial segments, and intersections.

##### **Freeway Segments**

The traffic study identified the segments of I-805 between SR-54 and Olympic Parkway and SR-54 between I-805 and Briarwood Road as potential freeway segments that could be impacted by the proposed project traffic. The results of the analysis found that these freeway segments operate at LOS E or better which is considered acceptable in



accordance with Caltrans and the Congestion Mitigation Program (CMP) threshold standards.

### Arterial Segments

The project traffic study identified several arterial segments within the project study area that need to be analyzed under existing conditions. These roadway segments were identified based on the project-only trip contribution meeting the minimum thresholds of the CMP guidelines. The City of Chula Vista and County of San Diego consider LOS C or better to be an acceptable LOS for long range planning purposes. However, it is recognized that as the build-out circulation system in the Southbay is evolving, periods of LOS D will exist. Thus, for the purpose of the review of network performance under existing and interim conditions (Years 2000, 2005, and 2010) LOS A through D will be viewed as acceptable on both county and city facilities.

The majority of the newer roadways within the immediate vicinity of San Miguel Ranch currently operate at acceptable LOS as they have been constructed to accommodate anticipated build-out traffic volumes. Older facilities in the Bonita area, however, currently experience congestion in several areas. Roadway segments currently operating at an unacceptable LOS E include East H Street from I-805 to Hidden Vista Drive, Bonita Road from Palm Drive to Sweetwater Road, and Sweetwater Road from Bonita Road to SR-54.

Several solutions to relieve these facilities are currently underway or planned, and are anticipated to be implemented in the near future. The completion of SR-54 from I-805 to SR-125 as an east-west six-lane freeway with HOV lanes will assist in improving the level of service performance on study area roadways, particularly east-west arterials. In addition, SR-125 from the international border to SR-54 is currently in the final stages of environmental review, is planned to be opened as a four-lane toll road facility by the year 2003, or later. Furthermore, the transportation improvements outlined in the City of Chula Vista General Plan Circulation Element as well as adjacent Community Plans (ultimate functional classification of roadways), including Bonita Road, Sweetwater Road, Central Avenue, East H Street, Telegraph Canyon Road and Olympic Parkway, will improve the level of service performance on the study area roadways, particularly east-west arterials.

### Peak Hour Intersections

All study area intersections were found to operate at acceptable LOS D or better during both peak periods under existing conditions. Some of these study area intersections have planned and programmed improvements to assure the continued acceptable operation as the Southbay region develops further.

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#### 4.4.1.10 Transit

The following principles should be followed in determining the location of transit stops along planned transit routes in the community and in designing the pedestrian system:

1. Where there are numerous major pedestrian generators, access to stops for transit vehicles moving in both directions would be facilitated by locating transit stops near striped intersections.
2. Transit stops should be located and walkways designed to provide access as directly as possible without impacting residential privacy.
3. At intersection points of two or more transit routes, stops should be located to minimize walking distance between transfer stops.
4. Transit vehicle conflicts with automobile traffic can be mitigated by locating bus turnouts at the far side of intersections in order to permit right-turning vehicles to continue movement.
5. Transit stops should be provided with adequate walkway lighting and designed shelters.
6. Walkway ramps should be provided at transit stops to ensure accessibility to the handicapped.

#### 4.4.1.11 Trip Generation and Phasing

##### 4.4.1.11.1 Project Trip Generation

The proposed project will generate approximately 29,284 average daily trips with 11,006 trips resulting from residential units, 1,413 trips from an elementary school, 885 from a neighborhood park, 14,634 from a neighborhood shopping center and 1,346 trips resulting from other public services within the project land uses.

A detailed transportation phasing analysis for the project was conducted by BRW, Inc. as part of the project traffic analysis titled *San Miguel Ranch Transportation Study, Transportation Phasing Analysis, Technical Report* dated August 10, 1998. The report developed a set of recommended transportation system improvements for each phase of the project development. For purposes of the traffic analysis, the project was subdivided into three phases. Phase I is defined as Years 1998 to 2000 which is expected to generate 1,968 trips/day. Phase II, Years 2000 to 2005, is expected to generate an additional 15,555 trips/day. Phase III, years 2005 to 2010, is expected to generate 11,761 trips/day for a total

## Traffic

project ADT of 29,284 trips/day. The phasing analysis also determined the amount of development that can be accommodated by the transportation system during each phase.

Table 16 shows the trips generated by each phase of the project and its Equivalent Dwelling Units (EDU). The table also shows the project land use assumed in the traffic study and the cumulative trips and EDU's.

**Table 16**  
**San Miguel Ranch SPA Trip Generation by Phase and Land Use**

Phase	Build-out Year	SFR @ 8	MFR @ 6.7	Elem. School @ 141.3	Active Park @ 46.6	P. Services @ 179.5	N. Shop. @ 1052.8
I	2000	1,968	0	0	0	0	0
II	2005	3,784	757	1,413	885	1,346	7,370
III	2010	4,496	0	0	0	0	7,264
<b>TOTAL</b>		10,248	757	1,413	885	1,346	14,634

Note: Trip generation rate per San Miguel Ranch Transportation Study, BRW Inc., dated August 10, 1999

**Table 17**  
**San Miguel Ranch SPA Trip Generation by Phase and EDU's**

Phase	Build-out Year	Total Trips	Project Build-out Trips	Total EDU's	Cumulative EDU's
I	2000	1,968	1,968	246	246
II	2005	15,555	17,523	716	962
III	2010	11,760	29,283	712	1,674
<b>TOTAL</b>		29,283		1,674	

Note: Trip generation rate per San Miguel Ranch Transportation Study, BRW Inc., dated August 10, 1999

The traffic report assumed the following project land uses:

- 1,281 single family dwelling units,
- 113 multi-family dwelling units,
- 13.9 acre neighborhood commercial,
- 10.0 acre elementary school,
- 7.5 acre public service, and
- 19.0 acre active park

\* The equivalent dwelling units (EDU) for transportation facilities is based on the current city ordinances noted in Section 4.3.6 of this report. Each single family detached dwelling shall be considered one EDU for the purpose of calculating the Transportation Development Impact Fee (TDIF). A single family attached dwelling shall be 1 EDU's. Each multi-family dwelling shall be considered 0.6 EDU's. Commercial/Office shall be charged at the rate of 25.0 EDU's per gross acre of land.

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### Phasing Reconciliation

The *Transportation Study Report* for the San Miguel Ranch project was analyzed in three phases of five year increments each as follows:

Phase I (Year 2000)	ADI: 1,968	EDU: 246
Phase II (Year 2005)	ADI: 15,555	EDU: 716
Phase III (Year 2010)	ADI: 11,760	EDU: 712

This phasing differs from the project's construction phasing contained in the SPA plan which is anticipated to proceed in four phases. **Table 17** calculates the EDU's and trips generated by each phase and land use and the cumulative trips for the project. The circulation system addressed and recommended in the *Transportation Study Report* includes all improvements based on average daily trips (ADI) taken from the Traffic Analysis Study of the project Environmental Impact Report (EIR) and the trigger points for needed improvements.

The total trips used in the *Transportation Study Report* (29,284) remains the same in both the three phased scenario as well as for four phases.

### Network Analysis

The analysis of network performance under the San Miguel Ranch alternatives was based on the traffic forecasting methodologies and land use forecast information contained in the Series 8 Version 1.0 Transportation Model, developed and operated by San Diego Association of Governments (SANDAG). BRW Inc., worked with the City of Chula Vista and SANDAG to input the proper land use and network designations into the model for the 5 scenarios listed below. Series 8 regional projections for population and employment were utilized in the San Miguel Ranch traffic forecasting model runs. The model assumed the partial build-out of approximately 6,000 acres of industrial land in Otay Mesa, located to the south of the project site. Other planned developments with tentative map approval including Otay Ranch SPA I, Sunbow II, EastLake Trails, Salt Creek Ranch and Rancho del Rey SPA III, as well as the noted development in the Otay Mesa area are expected to generate more than 155,000 trips per day by year 2010. SANDAG staff performed all transportation modeling for the San Miguel Ranch Transportation Analysis under the direction of BRW Inc., and the City of Chula Vista.

- Year 2000 w/o SR-125
- Year 2005 w/o SR-125
- Year 2005 w SR-125
- Year 2010 w SR-125
- Build-out w SR-125

Under each of the five scenarios, some key network assumptions were made by the project team.

## Traffic

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1. Year 2000: no SR-125 or Olympic Parkway east of Medical Center Drive.
2. Year 2005: no SR-125 or Olympic Parkway east of Medical Center Drive (Year 2005 without SR-125).
3. Year 2005: Olympic Parkway is assumed as a four-lane roadway between I-805 and Wueste Road, Hunte and EastLake Parkways completed to their ultimate configuration from Otay Lakes Road to Olympic Parkway, and SR-125 as a toll road (Year 2005 with SR-125).
4. Year 2010: SR-125 is assumed built as toll road, Olympic parkway built to its ultimate configuration (6 lane roadway) between I-805 and Wueste Road, Hunte and EastLake Parkways built to their ultimate configuration from Otay Lakes Road to Olympic Parkway, and northbound on-ramp and southbound off-ramp at I-805/East Palomar Street interchange are opened to traffic.
5. Year Build-out: SR-125 operates as a freeway (not a toll road).

### Network Performance Assessment Process

The Traffic Impact Report (*San Miguel Ranch SPA Transportation Study and Transportation Phasing Analysis Technical Report* dated August 10<sup>th</sup>, 1998 by BRW Inc.) included the traffic model projections for cumulative development projects. The report also identified the number of daily trips for each project phasing development on key roadway segments in order to perform the analysis of network performance based on daily segment levels of service. This performance evaluation was performed for all Study Area arterial and freeway segments. A review of peak hour intersection operations was also performed which required the application of peak hour factors to average daily traffic volumes to develop peak hour turning movements at each of the key project intersections.

#### 4.4.1.11.2 Project Phasing

The phasing shown herein is consistent and conforms to the phasing contained in the *San Miguel SPA Transportation Study and Transportation Phasing Analysis* were prepared by BRW and dated August 10<sup>th</sup>, 1998. Development of San Miguel Ranch project contributes 1,968 daily trips during Phase I (1998-2000), 15,555 daily trips during phase II (2000-2005), and 11,760 daily trips (2005-2010). This results in a cumulative total trips of 29,284 daily trips loaded onto the circulation network at the build-out of the San Miguel Ranch development.

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Five network development scenarios were analyzed for Phases I, II and III of the San Miguel Ranch development project as follows:

- **Phase I (Year 2000 Without SR-125)**  
**Total Cumulative ADT's: 1968 trips &**  
**Total Cumulative EDU's: 246**

This scenario analyzes the impacts associated with the San Miguel Ranch Phase I Traffic on the existing circulation system. Under this scenario, the daily traffic volumes were manually adjusted to reflect the connection of Proctor Valley Road between East H Street and San Miguel Road. It is intended that this facility remain open as a 2-lane collector.

#### **A. Impacted Freeway Segments**

*I-805 (SR-54 to East H Street);  
SR-54 (Reo Drive to Woodman Drive)*

##### Cumulative Mitigation

Creation of a Deficiency Plan under the Congestion Management Program (CMP) by SANDAG, Caltrans, APCD, MTDB, the City of Chula Vista and the County of San Diego. Work on the Deficiency Plan should begin immediately and should be formalized by the end of the Year 2000. The Deficiency Plan should identify where and when a freeway deficiency is expected to occur before it actually happens. San Miguel Ranch is one of many development projects in the Southbay area which will contribute to the cumulative daily traffic volume growth. San Miguel Ranch project traffic contribution on these freeway segments is less than 1%. The early creation of the Deficiency Plan will assist in the identification of San Miguel Ranch project fair-share contributions for improvements and mitigation.

##### Project Mitigation

There are no freeway mitigations associated directly with San Miguel Ranch project.

#### **B. Impacted Arterial Segments**

*Briarwood Road (SR-54 to Sweetwater Road);  
Central Avenue (Bonita Road to Corral Canyon Road);  
Corral Canyon Road (Central Avenue to Country Vista Lane), and  
East H Street (I-805 to Hidden Vista Drive).*

### Cumulative Mitigation

While four roadway segments have been identified to operate at LOS E for Year 2000 conditions, peak hour intersection operations along these roadway segments are forecasted to function at LOS D or better, which provides a more accurate indicator of true arterial performance. Impacted roadway segments in the Bonita area are forecasted to resume acceptable operation of LOS D or better after the opening of SR-125. Therefore, certain impacts that are considered significant and unmitigated under this near-term scenario are forecasted to be mitigated by the opening of SR-125 toll road under future scenarios. San Miguel Ranch traffic contribution to these segments ranges between 0.6- and 1.0-percent.

### Project Mitigation

1. **Construct Mt. Miguel Road as a 4-lane with raised median between the easterly limit of San Miguel Ranch project and Street "I" (2200 LF). No offsite mitigation is required, because the project traffic contribution to offsite segments ranges between 0.6- and 1.0-percent.**

### **C. Impacted Peak Hour Intersections**

*Briarwood Road and SR-54 westbound ramps (signalized intersection) in the Bonita area is forecasted to operate at LOS F during the AM peak hour*

### Cumulative Mitigation

Add an additional southbound right turn lane on Briarwood Road. San Miguel Ranch traffic contribution to this intersection is less than 1.0-percent.

### Project Mitigation

There are no intersection mitigations associated directly to San Miguel Ranch project.

- **Phase II (Year 2005 Without SR-125)**  
**Total Cumulative ADT's: 17,523 trips &**  
**Total Cumulative EDU's: 962**

This scenario analyzes the impacts associated with the San Miguel Ranch build-out of Phases I & II on the projected year 2005 circulation system. Olympic Parkway would be extended as a 4-lane roadway easterly to Wueste Road and SR-125 would not be built under this alternative. EastLake and Hunte Parkways would be extended southerly to Olympic Parkway as 4-lane major facilities.

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## A. Impacted Freeway Segments

*I-805 (SR-54 to Telegraph Canyon Road);  
SR-54 (I-805 to Woodman Drive);  
SR-54 (Briarwood Road to Paradise Valley Road) ; and  
SR-54 (Jamacha Blvd to Ildica Street)*

### Cumulative Mitigation

Creation of a Deficiency Plan under the Congestion Management Program (CMP) by SANDAG, Caltrans, APCD, MIDB, the City of Chula Vista and the County of San Diego. Deficiency Plan should identify where and when a deficiency is expected to occur before it actually happens. San Miguel Ranch is one of many development projects in the Southbay area which will contribute to the cumulative daily traffic volume growth. San Miguel project traffic contribution on these freeway segments is less than 1%. The early development of the Deficiency Plan will assist in the identification of San Miguel project fair-share contributions for improvements and mitigation.

### Project Mitigation

There are no freeway mitigations associated directly with San Miguel Ranch project.

## B. Impacted Arterial Segments

*Briarwood Road (SR-54 to Sweetwater Road),  
Corral Canyon Road (Central Avenue to Country Vistas Lane);  
Otay Lakes Road (Bonita Road to Avenida Del Rey);  
Otay Lakes Road (East H Street to Telegraph Canyon Road);  
Otay Lakes Road (Telegraph Canyon Road to Corral Canyon Road);  
Proctor Valley Road (San Miguel Road to Mt Miguel Road);  
Bonita Road (Palm Avenue to Central Avenue);  
San Miguel Road (Bonita Road to Proctor Valley Road);  
Central Avenue (Bonita Road to Corral Canyon Road); and  
East H Street (I-805 to Hidden Vista Drive)*

### Cumulative Mitigation

While the above roadway segments have been identified to operate at LOS E or worse under phase II conditions, *the construction of SR-125 returns all Study Area roadway segments to acceptable levels of service*. Therefore, any mitigations to roadway segments required under this scenario (Without SR-125) would be interim in nature and for the most part ultimately unnecessary once SR-125 is completed. Certain impacted segments, however, have planned or recommended improvements in later time frames that could be



implemented during phase II. These include the upgrading and widening of Otay Lakes Road, San Miguel Road and Proctor Valley Road all of which are planned or recommended during the full Southbay build-out time frame.

Based on the number of impacted segments and the City's traffic thresholds, the projected circulation system capacity, prior to SR-125, is insufficient to carry all projected trips from proposed development projects in the City's Eastern Territories. Therefore, a threshold limit for San Miguel Ranch needed to be determined. Under the direction of the City, an arterial adequacy analysis was conducted by Willdan Associates to determine the maximum allowable trips on an equivalent dwelling unit (EDU) basis for the San Miguel Ranch project prior to SR-125. For additional information, reference is made to Section 4.4.1.14 at the end of this chapter.

### Project Mitigation

1. **Construct Mt. Miguel Road as a 4-lane with raised median between Street "I" and Street "A" (2200 LF)**
2. **Construct Proctor Valley Road as a 2-lane collector along the frontage of the school site (1600 LF)**

### **C. Impacted Peak Hour Intersections**

*Central Avenue at Bonita Road - LOS F during the AM & PM peak hours,  
Sweetwater Road - LOS F during the AM and PM peak hours; and  
East H Street at I-805 southbound ramps - LOS E during the PM peak hour;*

### Cumulative Mitigation

While the above signalized intersections have been identified to operate at LOS E or worse, *the construction of SR-125 returns all Study Area intersections to acceptable levels of service.* Therefore, any mitigation to these intersections would be interim in nature and for the most part ultimately unnecessary once SR-125 is completed.

### Project Mitigation

There are no intersection mitigations associated directly with San Miguel Ranch project

- **Phase II (Year 2005 With SR-125 as Toll Road)  
Total Cumulative ADT's: 17,523 trips &  
Total Cumulative EDU's: 962**

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This scenario analyzes the impacts associated with the San Miguel Ranch Build-out of Phases I & II on the projected year 2005 circulation system. This alternative scenario assumes the same roadway network as Alternative B except for the addition of SR 125 as a toll road.

#### **A. Impacted Freeway Segments**

*I-805 (SR-54 to Telegraph Canyon Road);  
SR-54 (I-805 to Woodman Drive); and  
SR-54 (SR-125 to Ildica Street)*

##### Cumulative Mitigation

Creation of a Deficiency Plan under the Congestion Management Program (CMP) by SANDAG, Caltrans, APCD, MTDB, the City of Chula Vista and the County of San Diego. The Deficiency Plan should identify where and when a deficiency is expected to occur before it actually happens. San Miguel Ranch is one of many development plans for the Southbay which will contribute to the cumulative daily traffic volume growth. San Miguel Ranch project traffic contribution on these freeway segments is less than 1%. The early development of the Deficiency Plan will assist in the identification of San Miguel Ranch project fair-share contributions for improvements and mitigation.

##### Project Mitigation

There are no freeway mitigations associated directly with San Miguel Ranch project.

#### **B. Impacted Arterial Segments**

*All roadway segments are forecasted to operate at an acceptable LOS under this scenario*

##### Cumulative Mitigation

Construct SR-125 as a 4-lane toll road within the Study Area.

##### Project Mitigation

- 1. Construct Mt. Miguel Road as a 4-lane with raised median between Street "I" and Street "A" (2200 LF)**
- 2. Construct Proctor Valley Road as a 2-lane Collector along the frontage of the school site (1600 LF)**

### C. Impacted Peak Hour Intersections

*All intersections within the study area are forecasted to operate at an acceptable LOS under this scenario*

#### Cumulative Mitigation

There are no intersection mitigations is necessary under this scenario.

#### Project Mitigation

There are no intersection mitigations associated directly with San Miguel Ranch project.

- **Phase III (Year 2010 With SR-125 as Toll Road)**  
**Total Cumulative ADT's 29,284 trips &**  
**Total Cumulative EDU's: 1,674**

This scenario analyzes the impacts associated with the San Miguel Ranch build-out on the projected year 2010 circulation system. Olympic Parkway would be built as a 6-lane roadway easterly to Wueste Road and SR-125 as toll road under this alternative. Mt. Miguel Road is built as a 4-lane major within the project limits. EastLake and Hunte Parkways would be extended southerly to Olympic Parkway as 4-lane major facilities. This alternative considers the half-diamond interchange at I-805/East Palomar Street completed.

### A. Impacted Freeway Segments

*I-805 (SR-54 to Telegraph Canyon Road),  
SR-54 (I-805 to Woodman Drive); and  
SR-54 (SR-125 to Ildica Street).*

#### Cumulative Mitigation

I-805 - Mitigation strategies for this facility include developing a deficiency plan which evaluates the concept of widening this freeway to ten lanes

SR-54 - This facility is built to its ultimate eight-lane cross-section (six-lane + 2 HOV lanes) by this time frame. Possible mitigation include TSM or IDM improvements that would maximize flow on this eight-lane facility. These improvements will include the implementation of ramp metering. San Miguel Ranch project traffic contribution on SR-54 ranges between 1.5 and 2.3 percent, and less than 0.10 percent on I-805. These relatively small percentages of project traffic does not change the forecasted LOS on these freeway segments.

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Project Mitigation

There are no freeway mitigations associated directly with San Miguel Ranch project.

**B. Impacted Arterial Segments**

*Otay Lakes Road (SR-125 to EastLake Parkway)*

The forecasted ADT on this segment of Otay Lakes Road is 400 trips/day above the segment LOS D capacity of 54,300 trips/day or less than 1 percent (0.7%)

Cumulative Mitigation

There are no improvement mitigations recommended under this scenario. San Miguel Ranch project traffic contribution to this segment is less than 0.3 percent which is considered less than significant.

Project Mitigation

1. **Construct Mt. Miguel Road as a 4-lane with raised median between Street "A" and the westerly limit of San Miguel Ranch project (4600 LF)**
2. **Construct Proctor Valley Road as a 2-lane Collector between Mt. Miguel Road and existing improvement at school site frontage (7700 LF)**

**C. Impacted Peak Hour Intersections**

*Briarwood Road & SR-54 westbound ramps - LOS F during the AM peak hour*

Cumulative Mitigation

Add an additional southbound right turn lane on Briarwood Road

Project Mitigation

There are no intersection mitigations associated directly with San Miguel Ranch project

- **Phase III (Project & General Plan Build-out With SR-125 as Freeway)  
Total Cumulative ADT's: 29,284 trips &  
Total Cumulative EDU's: 1,674**

This scenario analyzes the impacts associated with the San Miguel Ranch Build-out on the projected build-out year (2015) of the City's general plan land uses circulation system.

Olympic Parkway would be built as a 6-lane roadway facility easterly to Wueste Road and SR-125 as a regular freeway facility under this alternative. EastLake and Hunte Parkways would be extended southerly to Olympic Parkway as 4-lane major facilities. This alternative also includes the half-diamond interchange at I-805/East Palomar Street.

### **A. Impacted Freeway Segments**

*I-805 (SR-54 to East H Street);  
I-805 (Telegraph Canyon Road to Olympic Parkway),  
SR-54 (I-805 to Ildica Street); and  
SR-125 (SR-54 to Olympic Parkway).*

#### Cumulative Mitigation

Creation of a Deficiency Plan under the Congestion Management Program (CMP) by SANDAG, Caltrans, APCD, MTDB, the City of Chula Vista and the County of San Diego. The Deficiency Plan should identify where and when a deficiency is expected to occur before it actually happens. San Miguel Ranch is one of many development plans for the Southbay which will contribute to the cumulative daily traffic volume growth. San Miguel Ranch project traffic contribution on these freeway segments is less than 1%. The early development of the Deficiency Plan will assist in the identification of San Miguel Ranch project fair-share contributions for improvements and mitigation.

#### Project Mitigation

There are no freeway mitigations associated directly with San Miguel Ranch project.

### **B. Impacted Arterial Segments**

*Proctor Valley Road (San Miguel Road to Mt. Miguel Road),  
San Miguel Road (Bonita Road to Proctor Valley Road);  
East H Street (I-805 to Hidden Vista Drive); and  
Otay Lakes Road (SR-125 to EastLake Parkway).*

#### Cumulative Mitigation

There are no improvement mitigations recommended under this scenario. Improvement of peak hour intersection operations adjacent to impacted segments can potentially provide the necessary segment mitigation by increasing the ability of arterial intersections to accommodate peak hour volumes while maintaining acceptable level of service. The provision of enhanced intersection geometric and achievement of acceptable peak hour operation positively influences arterial flow and allows segments to operate more

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efficiently. San Miguel Ranch project traffic contribution to the above Arterial segments is less than 2 percent and is considered less than significant.

Project Mitigation

1. **Construct Mt. Miguel Road as a 4-lane with raised median between Street "A" and the westerly limit of San Miguel Ranch project (4600 LF)**
2. **Construct Proctor Valley Road as a 2-lane Collector between Mt. Miguel Road and existing improvement at school site frontage (7700 LF)**

**C. Impacted Peak Hour Intersections**

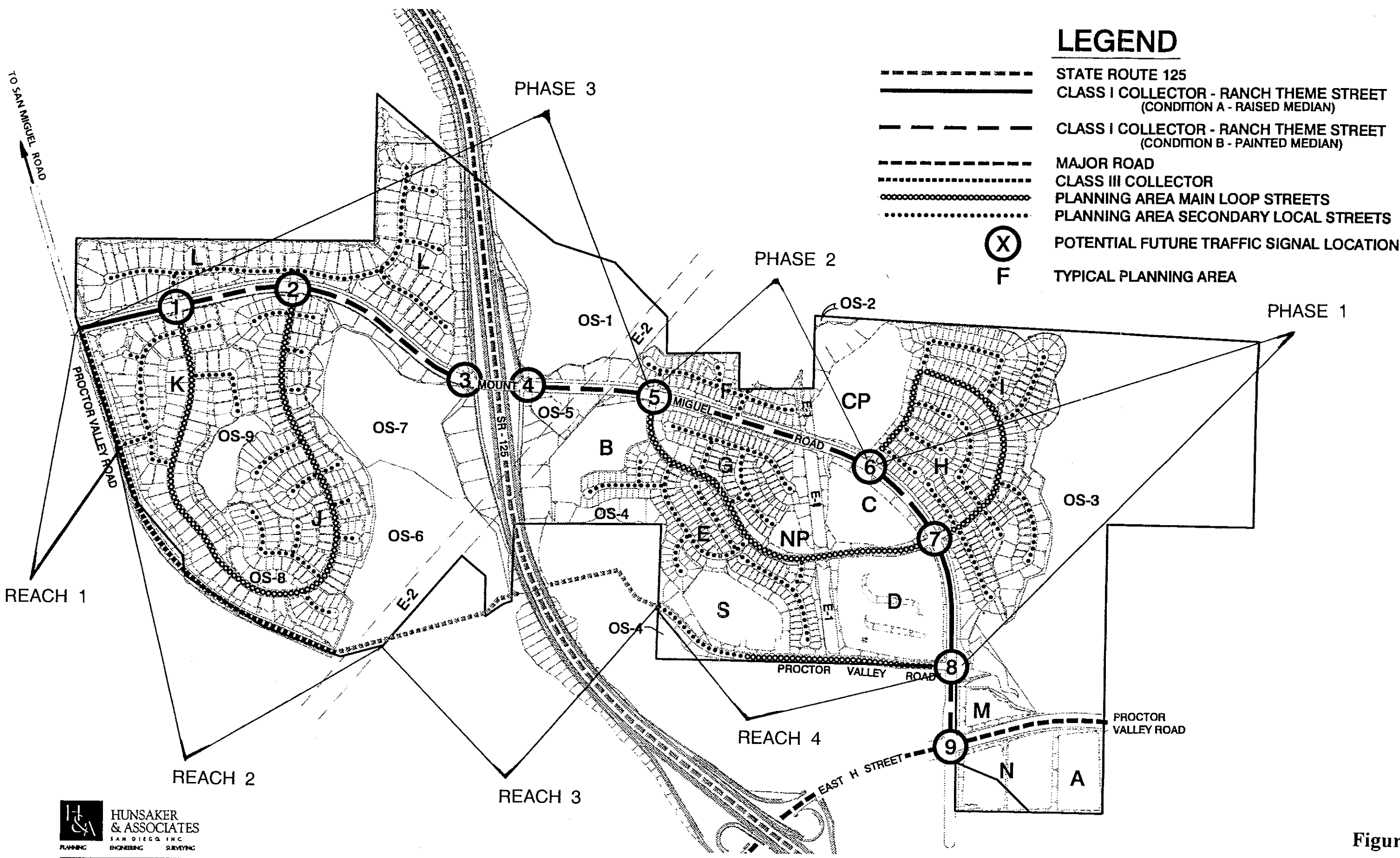
*All intersections within the study area are forecasted to operate at an acceptable LOS under this scenario.*

Cumulative Mitigation

There are no intersection mitigations recommended under this scenario.

Project Mitigation

There are no intersection mitigations associated directly with San Miguel Ranch project



**HUNSAKER & ASSOCIATES**  
 SAN DIEGO, INC.  
 PLANNING ENGINEERING SURVEYING

# San Miguel Ranch

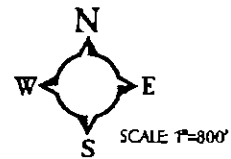


Figure 4

## CIRCULATION PLAN

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#### 4.4.1.12 Adequacy Analysis

The adequacy of the traffic system is based upon the Traffic Impact Report which considered two cases for the Build-out of phases I & II of the project. First case considers SR-125 is not built by the year 2005 and the second case considers SR-125 is built as a toll road by 2005. The analysis of the two cases was necessary in order to provide adequate mitigation for increased traffic levels for the initial phases of the project in the event SR-125 is not completed as scheduled. The approval and subsequent implementation of SR-125 should allow the City to implement the second case analysis mitigation measures outlined in the Traffic Impact report. In any case, maintenance of the City's Growth Management Threshold Standards for level of services is required.

**Arterial roadway segments** were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following three levels of criteria.

1. Project contribution of 800 or more daily trips to the roadway segment (800 or more daily trips is the CMP threshold for determining a project impact)
2. Five percent (5%) or more project traffic contributed to total ADT projected for the given study year.
3. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to the given year with No Project conditions.
4. Criterion 1 is applied to all impacted segments to identify segments that meet the CMP threshold for having a project-related impact. If criterion 1 is not met, then criteria 2 and 3 are not applied. Criterion 2 is then applied to the list of segments with more than 800 daily trips contributed (criterion 1) to cumulative ADT to screen for impacts to be carried forward to criterion 3. If criterion 3 is met in addition to Criteria 1 and 2, the impact is considered a significant project-related impact. If an arterial roadway segment meets criteria 1 and 2, but does not meet criterion 3, is considered a less than significant project-related impact.

The City of Chula Vista General Plan Circulation Element recommends LOS C design capacity or better as acceptable for arterial roadway segment ADT volumes. These standards are generally used as long-range planning guidelines to determine the functional classification of roadways and maintain a quality circulation system for Southbay residents under ultimate, build-out conditions. It should be recognized that the actual functional capacity of roadway facilities vary by the actual characteristics which exist on each facility under review. Typically, the performance and LOS of a roadway segment is based on the ability of arterial intersections to accommodate peak hour volumes.



Special designs of intersections to achieve acceptable levels of service and lower levels of approach delay could result in higher capacities than those shown in **Tables 12** (City of Chula Vista Standards) and **Table 13** (County of San Diego Standards).

For the purposes of the transportation analysis, LOS D design capacity as shown in the above noted tables is considered acceptable under Existing and Interim Conditions (Years 2000, 2005 and 2010) for roadway segments assuming adjacent intersection performance is acceptable. While the goal of the City of Chula Vista is to achieve LOS D for no more than two hours of any day, it is assumed that if peak hour intersections operate at LOS D or better during peak hours, then the roadway segments who's flow they control will also operate at LOS D for no more than two peak hours out of the day. Thus, LOS D is used as the acceptable threshold standard in the transportation analysis due to the fact that the transportation network in the interim time frame is partially constructed and the geographic distribution of trip activity is limited. There will be a lack of balance in the assignment of traffic prior to the construction of the full General Plan Circulation Element in the southeastern portion of the General Plan Area.

In addition to conformance with the arterial roadway performance standards detailed above, the project will be required to conform to the threshold standards included in the Traffic section of the adopted Growth Management Ordinance. The project's participation in the City's annual review of network performance is mandated as all major circulation element facilities within the City of Chula Vista are included in the annual Traffic Monitoring Program report prepared by the City Public Works Department, Engineering Division, and reviewed for conformance by the Growth Management Oversight Commission (GMOC). Finally, utilization of the arterial performance standards presented in the San Miguel SPA Transportation Study prepared by BRW, Inc., August 10, 1998, and the required adherence to the Growth Management traffic threshold standards will result in full conformance with the requirements of the mitigation measures described in the Findings of Fact adopted for the San Miguel Ranch EIR related to Transportation, Circulation, and Access.

**Adequacy analysis prior to SR-125:** Under the direction of the City of Chula Vista, Willdan Associates prepared a capacity analysis for East H Street between I-805 freeway and Southwestern College Entrance. This segment of East H Street is considered a critical corridor for land developments in the City's eastern territories before the opening of SR-125 Freeway. This segment of East H Street is considered a critical circulation link because it provides direct access for the eastern territory developments to the regional freeway network. The analysis used a linear regression formula with peak hour traffic volumes as a function of level of service based on the City's historical Traffic Monitoring Program (TMP) results and the 24-hour ADT's. Thus, this formula is basically reflecting the City's TMP methodology. Based on project development rates, the analysis shows that East H Street is projected to operate at an acceptable LOS (no more than two hours of LOS "D" during a 24 hour period) up-to the end of calendar year 2003 without SR-125.

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Therefore, San Miguel Ranch project threshold development is 600 residential units and 7 commercial acres.

Due to the insufficient capacity on East H Street prior to SR-125, San Miguel Ranch project should be allowed to proceed with five years of residential development at a rate of 120 units per year for a total of 600 residential units in addition to 7 acres of commercial. Therefore, the maximum allowable EDU's for San Miguel Ranch project prior to SR-125 is 675 EDU's including commercial in accordance with the City's ordinance EDU rate of 1 EDU per single family unit and 25 EDU's per acre of commercial.

The above noted East H Street capacity analysis for the years 1999 to 2005 is based on San Miguel Ranch development taking place east of SR-125. The analysis assumes no development within San Miguel Ranch west of SR-125. In the event the applicant desires to change the project development phasing to build units west of SR-125 before the opening of SR-125 freeway, additional roadway capacity analysis will be required to assess the impact of the project trips on the circulation network.

**Peak Hour Intersections** were analyzed to determine whether a project-related impact is "significant" or "less than significant" with regard to the following two levels of criteria.

1. Five percent (5%) or more project traffic contributed to projected given study year total entering volumes.
2. Level of Service (LOS) drops from acceptable LOS A through D to LOS E or F; or LOS drops from LOS E to LOS F as compared to the given study year under No Project conditions.

If an impacted intersection meets Criteria 1 and 2, the impact is considered to be a significant project-related impact. If neither or just one criterion is met, the impact is considered to be less than significant.

**Freeway Segment Impacts/Mitigation:** Impacts to freeway segments for the portions of I-805 in the vicinity of San Miguel Ranch project have been identified and some segments are forecasted to operate at LOS F. Under the regional Congestion Management Plan (CMP) a reduction in freeway segment level of service from LOS E to LOS F is considered a significant impact and requires the development of a Deficiency Plan. This Plan would be developed jointly by SANDAG, Caltrans, APCD, MTDB, and the City of Chula Vista.

One of the main purposes of the Deficiency Plan is to identify where and when a deficiency is expected to occur before it actually happens. San Miguel Ranch is one of many development plans for the Southbay which will contribute to the cumulative daily traffic volume growth, especially in the I-805 corridor. The early development of the Deficiency Plan by the multi-agency team will assist in the identification of project only fair-share contributions for improvements and mitigation.

Subsection C of Municipal Code Section 19.09.100 (Growth Management Ordinance) requires that if the City Manager determines that facilities or improvements within a PFFP are inadequate to accommodate any further development within that area the City Manager shall immediately report the deficiency to the City Council. If the City Council determines that such events or changed circumstances adversely affect the health, safety or welfare of City, the City may require amendment, modification, suspension, or termination of an approved PFFP

**4.4.1.13 Cost & Financing Traffic Improvements**

**Roadway Improvements**

The following table summaries San Miguel Ranch major roadway requirements as it relates to the project development phasing based on the project Traffic Impact Study prepared by BRW, Inc. and dated August 10, 1998. The roadway requirement columns show the traffic project description and cost associated with that development phase of the San Miguel Ranch project and the maximum cumulative Equivalent Dwelling Units (EDU's). The cost of segment III of Mt. Miguel Road associated with San Miguel Ranch phase III does not include the cost of the SR-125 interchange

**Table 17A  
San Miguel Ranch  
Roadway Improvement Phasing and Cost**

Phase	Build-out Year	Total EDU's	Cum. EDU's	Project Description	Project Cost
I	2000	246	246	1 Construct Mt. Miguel Road as a four-lane roadway with raised median between easterly limit of the project and Street "I" ( 2200 LF).	\$2,486,000
II	2005	716	962	1 Construct Mt. Miguel Road as a four lane roadway with raised median between Street "I" and Street "A" (2200 LF).  2 Construct Proctor Valley Rd as a two lane Collector along the frontage of the school site (Reach 4 @ 1600 LF)	\$2,486,000  \$641,600
III	2010	712	1,674	1 Construct Mt. Miguel Road as a four lane roadway with raised median between Street "A" and westerly project limit (4600 LF)  2 Construct Proctor Valley Road as a two lane Collector between Mt. Miguel Road and existing improvement at school site frontage (Reaches 1, 2, & 3 @ 7700 LF).	\$4,876,000  \$3,087,800
<b>TOTAL</b>		1,674			<b>\$13,577,400</b>

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## Transportation Development Impact Fees (DIF)

On December 7, 1993, the Chula Vista City Council adopted Ordinance 2580 amending Ordinance 2251 which previously commenced collection of transportation development impact fees (TDIF) to be used to construct circulation element transportation facilities to accommodate increased traffic generated by new development within the City's eastern territories. The fee was \$3,998 per equivalent dwelling unit (EDU) effective January 1, 1995. City staff recently completed an update of the TDIF and the City Council is anticipated to consider and approve a new rate of \$5,846 per EDU at their meeting on June 22, 1999. The new rate is being proposed as an urgency measure and would take affect immediately. This PFFP reflects the proposed new TDIF rate.

Also effective January 1, 1995 is an interim pre-SR-125 development impact fee in the amount of \$820 per equivalent dwelling unit to implement the pre-SR-125 strategy as defined in the study entitled "Interim State Route 125 Facility Feasibility Study" dated May 1993.

The San Miguel Ranch project is within the boundaries of the Transportation DIF program and, as such, the project is subject to the payment of the fees at the rates in effect at the time building permits are issued. However, the improvement identified on Page 3 2.14 of the PFFP will be required to be constructed according to the approved phasing plan. In this case, the DIF ordinance allows for the issuance of credit in lieu of fees when an eligible facility is constructed by the project. If the total eligible construction cost amounts to more than the total required DIF fees as is indicated below, the owner/developer will be given credits toward future building permits outside of the SPA area.

The following equivalent dwelling units (EDU's) apply to the calculation of impact fees in accordance with Ordinance No's. 2580 for Transportation and 2579 for Interim Pre-SR-125 facilities.

The proposed TDIF is \$5,846 per EDU. Each new single family detached dwelling shall be considered one EDU for the purposes of this fee. A single family attached dwelling shall be 0.8 EDU's. A unit within a multi-family dwelling shall be considered 0.6 EDU's. Commercial/Office shall be charged at the rate of 25.0 EDU's per gross acre of land while Industrial is 15.0 EDU's per acre.

The Interim Pre-SR-125 Development Impact Fee beginning January 1, 1995 is \$820 per EDU. The same EDU rates apply to the Interim Pre-SR-125 Development Impact Fee as for the Transportation Development Impact Fee.

**Table 18  
Phasing EDU's for  
Transportation and Interim Pre-SR-125 Facilities**

Land Use	DU's or ACRES	EDU's by Phase				Total EDU's
		Phase 1	Phase 2	Phase 3	Phase 4	
SFR-DETACHED	1,063.0	489.0	254.0	320.0	0.0	1,063.0
SFR-ATTACHED	0.0	0.0	0.0	0.0	0.0	0.0
MFR	331.0	0.0	130.8	0.0	67.8	198.6
COMMERCIAL	14.3	0.0	0.0	0.0	357.5	357.5
<b>EDU's/PHASE</b>		<b>489.0</b>	<b>384.8</b>	<b>320.0</b>	<b>425.3</b>	<b>1,619.1</b>

**Table 19  
San Miguel Ranch Transportation DIF Fees**

Development Phase	EDU's	Transportation Fee @ \$5,846/EDU
1	489.0	\$2,858,694
2	384.8	2,249,541
3	320.0	1,870,720
4	425.3	2,486,304
<b>Total</b>	<b>1,619.1</b>	<b>\$9,465,259</b>

**Table 20  
Vista Mother Miguel Transportation DIF Fees**

Development Phase	EDU's	Transportation Fee @ \$5,846/EDU
1	43.0	\$251,378
<b>Total</b>	<b>43.0</b>	<b>\$251,378</b>

**Table 21  
San Miguel Ranch Interim Pre-SR-125 DIF Fees**

Development Phase	EDU's	Interim Pre-SR-125 Fee @ \$820.00/EDU
1	489.0	\$400,980
2	384.8	315,536
3	320.0	262,400
4	425.3	348,746
<b>Total</b>	<b>1,619.1</b>	<b>\$1,327,662</b>

**Table 22  
Vista Mother Miguel  
Interim Pre-SR-125 DIF Fees**

Development Phase	EDU's	Interim Pre-SR-125 Fee @ \$820.00/EDU
1	43.0	\$35,260
<b>Total</b>	<b>43.0</b>	<b>\$35,260</b>

**Traffic Signal Fee**

Future development within San Miguel Ranch will be required to pay Traffic Signal Fees in accordance with Chula Vista Council Policy No. 475-01. The fee is calculated at \$13.00 per vehicle trip generated per day for various land use categories.

**Table 23  
San Miguel Ranch  
Traffic Signal Fees**

Development Phase	Trips	Traffic Signal Fee @ \$13.00/Trip
1	3,912	\$50,856
2	3,493	45,404
3	2,560	33,280
4	13,075	169,973
<b>Total</b>	<b>23,039</b>	<b>\$299,513</b>

**Table 24  
Vista Mother Miguel  
Traffic Signal Fees**

Development Phase	Trips	Traffic Signal Fee @ \$13.00/Trip
1	344	\$4,472
<b>Total</b>	<b>344</b>	<b>\$4,472</b>

**Non-DIF Streets and Signals**

The San Miguel Ranch project contains residential streets and signals that, by city policy, are not eligible for DIF credit. These streets and signals will be funded by the development.

#### **4.4.1.14 Threshold Compliance and Recommendations**

Threshold compliance will continue to be monitored through the annual intersection monitoring program and the Eastern Chula Vista Transportation Phasing Plan updates

Due to the insufficient capacity on East H Street prior to SR-125, San Miguel Ranch project should be allowed to proceed with five years of residential development at a rate of 120 units per year for a total of 600 residential units in addition to 7 acres of commercial. Therefore, the maximum allowable EDU's for San Miguel Ranch project prior to SR-125 is 675 EDU's including commercial in accordance with the City's ordinance EDU rate of 1 EDU per single family unit and 25 EDU's per acre of commercial

San Miguel Ranch shall be conditioned to pay Transportation DIF Fees and Interim Pre-SR-125 DIF Fees at the rate in effect at the time building permits are issued.

#### **Olympic Parkway Feasibility and Financing Study**

The City has completed a feasibility and financing study for the construction of Olympic Parkway east of I-805. San Miguel Ranch project will be required to participate with its fair share in any subsequent Olympic Parkway financing district. In the event the construction of Olympic Parkway is not completed as scheduled and the City's traffic threshold are exceeded, the City may withhold issuance of building permits until such time the traffic impacts are mitigated

#### **Mt. Miguel Road**

Mt. Miguel Road shall be constructed by San Miguel Ranch as a 4-lane roadway with raised median within the project limits. The construction phasing shall be as noted in the project phasing section of this report. This 4-lane collector will provide access between the City of Chula Vista and the County roadway network. This roadway will also provide a direct access for the project to SR-125 via a diamond interchange.

#### **Proctor Valley Road**

Proctor Valley Road shall be constructed per City standards (CVDS-3) by San Miguel Ranch as a 40-foot-wide curb-to-curb, 2-lane Class III Collector in two phases. Proctor Valley Road Phase 1 is that segment along the frontage of the school site (Reach 4 on Figure 4) and it shall be constructed with Phase II of the San Miguel Ranch project. Proctor Valley Road Phase 2 is that segment between the school site and Mt. Miguel Road at the westerly limit of the San Miguel Ranch project (Reaches 1, 2, and 3 on Figure 4) and it shall be constructed with Phase III of the San Miguel Ranch project. This 2-lane Class III collector will provide additional access between the City of Chula Vista and the County roadway network and the elementary school site as well as pedestrian access. This roadway will not have a direct access for the project to SR-125.

## **4.4.2 POLICE**



## 4.4.2 POLICE

### 4.4.2.1 Threshold Standard

- A. Emergency response: properly equipped and staffed police units shall respond to 84 percent of "Priority One" emergency calls within 7 minutes and maintain an average response time to all "Priority One" emergency calls of 4.5 minutes or less measured annually.
- B. Respond to 62 percent of "Priority Two Urgent" calls within 7 minutes and maintain an average response time to all "Priority Two" calls of 7 minutes or less measured annually.

### 4.4.2.2 Service Analysis

Police services are provided by the City of Chula Vista Police Department. The purpose of the Threshold Standard is to maintain or improve the current level of police services throughout the City by ensuring that adequate levels of staff, equipment and training are provided.

Police Facilities are also addressed in *A Master Plan for the Chula Vista Civic Center Solving City Space Needs Through Year 2010*, dated May 8, 1989.

### 4.4.2.3 Project Processing Requirements

#### Sectional Planning Area Plan/Public Facilities Finance Plans

1. Services reviewed consistent with proposed phasing of the project.
2. Demonstrate conformance with *A Master Plan for the Chula Vista Civic Center*, dated May 8, 1989.

### 4.4.2.4 Existing Conditions

The San Diego County Sheriff's Department currently provides law enforcement services to the unincorporated area encompassing San Miguel Ranch and the Vista Mother Miguel subdivision. The Chula Vista Police Department (CVPD) provides mutual aid to the Sheriff by prior agreement. Following annexation to the City, the area will receive police services from the City of Chula Vista.



the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the San Miguel Ranch obligation at build-out is \$347,636 and for Vista Mother Miguel it is \$10,105.

<b>Development Phase</b>	<b>EDU's</b>	<b>Police Fee @ \$235/EDU</b>
1	489.0	\$114,915
2	472.0	110,920
3	320.0	75,200
4	198.3	46,601
<b>Total</b>	<b>1,479.3</b>	<b>\$347,636</b>

<b>Development Phase</b>	<b>EDU's</b>	<b>Police Fee @ \$235/EDU</b>
1	43.0	\$10,105
<b>Total</b>	<b>43.0</b>	<b>\$10,105</b>

**4.4.2.7 Threshold Compliance and Recommendations**

The City will continue to monitor police responses to calls for service in both the Emergency (priority one) and Urgent (priority two) categories and report the results to the GMOC on an annual basis.

San Miguel Ranch will be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

Vista Mother Miguel subdivision will be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

**4.4.3 FIRE AND EMERGENCY  
MEDICAL SERVICES**

### **4.4.3 FIRE AND EMERGENCY MEDICAL SERVICES**

#### **4.4.3.1 Threshold Standard**

Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within seven (7) minutes in 85 percent (current service to be verified) of the cases (measured annually).

#### **4.4.3.2 Service Analysis**

Fire and Emergency Medical Services are provided by the City of Chula Vista Fire Department. The City also has county wide mutual and automatic aid agreements with surrounding agencies should the need arise for their assistance. The purpose of the Threshold Standard and the monitoring of response times is to maintain and improve the current level of fire protection and emergency medical services (EMS) in the City. Fire/EMS facilities are provided for in the *Fire Station Master Plan*, dated August 14, 1997. The Fire Station Master Plan indicates that response time is primarily determined by the number and location of fire stations. The Fire Station Master Plan evaluates the planning area's fire coverage needs, and recommends a nine (9) station network at Build-out to maintain compliance with the threshold standard.

#### **4.4.3.3 Project Processing Requirements**

Developments shall be in accordance with the project guidelines outlined in the Fire Station Master Plan as may be amended from time to time.

In accordance with the Fire Station Master Plan, the City, at its sole discretion, shall determine when a new fire station is required in order to achieve threshold service levels, meet specific project guidelines or maintain general operational needs of the Fire Department

The requirement to pay for fire station construction and related equipment shall be the sole responsibility of the developer or developers and the City may require said developer or developers to provide a guarantee mechanism to assure the availability of such funding

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Specific siting of the facility takes place which conforms with the *Fire Station Master Plan*, August 14, 1997.
2. Site reserved.
3. Equipment needs identified.
4. Methods of financing discussed.
5. Timing of construction is consistent with threshold service levels, specific project guidelines and/or general operational needs of the Fire Department.

6. Demonstrate the ability to provide adequate facilities to access required fire stations in conjunction with the construction of sewer and water facilities.

#### 4.4.3.4 Existing Conditions

There are currently six city stations and one fire protection district station serving the City of Chula Vista. The existing and future stations are listed below:

##### FIRE STATION INVENTORY

<b><u>Chula Vista Existing Facilities</u></b>		<b><u>Location</u></b>	
Station #1		447 "F" Street	
Station #2		80 East "J" Street	
Station #3		266 East Oneida	
Station #4		861 Otay Lakes Road	
Station #5		391 Oxford Street	
Interim Station #6		975 Lane Avenue	
Fire Training Tower		850 Paseo Ranchero	
Fire Prevention Bureau		447 "F" Street	
Fire Administration		447 "F" Street	
<b><u>Fire Protection District Facility</u></b>		<b><u>Location</u></b>	
Bonita/Sunnyside Fire Protection Dist.		4900 Bonita Road	
<b><u>Planned Facilities</u></b>		<b><u>Location</u></b>	<b><u>Cost Estimate</u></b>
Station #3 (to be relocated)		Sunbow	\$674,000 <sup>8</sup>
Station #4 (to be relocated)		850 Paseo Ranchero	\$650,000 <sup>1</sup>
Station #5 (to be reconstructed)		391 Oxford Street	\$650,000 <sup>1</sup>
Station #6 (permanent facility)		Salt Creek	\$674,000 <sup>1</sup>
Otay Ranch		Village 2	None Established
Otay Ranch		Village 9	None Established
Otay Ranch		Village 13	None Established
<b><u>Other Capital Improvements</u></b>			
Radio Communications Tower		Otay Mountain	\$38,000
Public Safety Communications (CAD/RMS)		Dispatch Center	\$1,788,000
Public Safety Communications (800MHz)		Citywide	None Established
Brush Engine		Eastern Territories	\$225,000

#### 4.4.3.5 Adequacy Analysis

The City of Chula Vista Fire Department (CVFD) currently serves areas within the City's boundaries including the San Miguel Ranch SPA area. The closest CVFD stations to the project site are:

- Relocated Fire Station 4, located at 850 Paseo Ranchero in Rancho del Rey.

<sup>8</sup> Cost estimate based upon 1995 planning for relocation of Fire Station 4, (base estimate of \$598,600 with 3% per year projected cost increases).

## **Fire and Emergency Medical Services**

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- Interim Fire Station 6A, located in the EastLake Business Park.
- Permanent Fire Station 6, located in the Rolling Hills Ranch (Salt Creek) development.

The nearest station to the San Miguel Ranch and Vista Mother Miguel developments is proposed for the Rolling Hills Ranch (Salt Creek) development adjoining that project's park site just south of East "H" Street/Proctor Valley Road. This station, scheduled to become operational in the 2003, will provide first-in coverage to Rolling Hills Ranch, San Miguel Ranch, Vista Mother Miguel, and portions of EastLake I. The station would also be the first-in provider to the Watson-McCoy and Otay Ranch Inverted "L" project areas and provide second-in coverage for the Bonita Long Canyon area.

Historically, there has been very few large brush fires in the area of the proposed San Miguel Ranch project and the Vista Mother Miguel subdivision. However, the potential exists for a large brush fire in this area. Fighting such a fire would require substantial assistance from other surrounding fire departments in accordance with the State Master Aid Agreement. While providing for men and equipment, the agreement does not include cost reimbursement for the use of aircraft, contracted hand crews or heavy equipment.

According to the Chula Vista Fire Department, if a large fire did occur in this area it could result in a financial cost to the City in the range of \$50,000 to \$100,000. Due to this possibility, the Fire Department recommends that there be a contingency fund established to offset these costs in the event of a large brush fire in or near the Eastern Territories.

### **4.4.3.6 Financing Fire Service Facilities**

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2554 on April 27, 1993. The portion of the fee attributable to fire and emergency medical services is \$141/EDU.

An agreement has been negotiated with Rolling Hills Ranch for the construction of Fire Station #6. The agreement calls for the developer to advance the full cost of the station, beyond what would be the developer's "fair share" based on Equivalent Dwelling Unit (EDU) rates. The excess payment made by a developer would be repaid as a non-interest bearing loan some point in the future, from future Public Facility Development Impact Fee (PFDIF) funds.

The San Miguel Ranch project and the Vista Mother Miguel subdivision will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At

the current fee rate, the San Miguel Ranch obligation at build-out is \$208,581 and for Vista Mother Miguel it is \$6,063.

Development Phase	EDU's	Fire/EMS Fee @ \$141/EDU
1	489.0	\$68,949
2	472.0	66,552
3	320.0	45,120
4	198.3	27,960
<b>Total</b>	<b>1,479.3</b>	<b>\$208,581</b>

Development Phase	EDU's	Police Fee @ \$141/EDU
1	43.0	\$6,063
<b>Total</b>	<b>43.0</b>	<b>\$6,063</b>

#### **4.4.3.7 Threshold Compliance and Recommendations**

The City will continue to monitor Fire Department responses to emergency fire and medical calls and report the results to the GMOC on an annual basis.

The San Miguel Ranch SPA shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued. The Vista Mother Miguel subdivision will be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.



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#### **4.4.4 SCHOOLS**

## **4.4.4 SCHOOLS**

### **4.4.4.1 Threshold Standard**

The City annually shall provide the two local school districts with a 12 to 18 month development forecast and request an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' replies should address the following:

1. Amount of current capacity now used or committed.
2. Ability to absorb forecasted growth in affected facilities.
3. Evaluation of funding and site availability for projected new facilities.
4. Other relevant information the District(s) desire(s) to communicate to the City and GMOC.

### **4.4.4.2 Service Analysis**

School facilities and services in Chula Vista are provided by two school districts. The Chula Vista Elementary School District administers education for kindergarten through sixth grades. The Sweetwater Union High School District administers education for the Junior/Middle and Senior High Schools of a large district which includes the City of Chula Vista. The purpose of the threshold standard is to ensure that the districts have the necessary school sites and funds to meet the needs of students in newly developing areas in a timely manner, and to prevent the negative impacts of overcrowding on the existing schools. Through the provision of development forecasts, school district personnel can plan and implement school facility construction and program allocation in line with development.

Chula Vista Elementary School District's Standards and Criteria are used in the place of a defined master plan.

Sweetwater Union High School District utilizes the "Sweetwater Union High School District Long Range Comprehensive Master Plan", dated November 1989 and updated in May, 1993.

### **4.4.4.3 Project Processing Requirements**

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify student generation by phase of development.
2. Specific siting of proposed school facilities will take place in conformance with the *Sweetwater Union High School District Long Range Comprehensive Plan*,

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- 
- November, 1989 and Chula Vista Elementary School District's Standards and Criteria.
  3. Reserve school sites, if necessary, or coordinate with the district for additional school classrooms.
  4. Provide cost estimates for facilities.
  5. Identify facilities consistent with proposed phasing.
  6. Demonstrate the ability to provide adequate facilities to access public schools in conjunction with the construction of water and sewer facilities.
  7. Secure financing.

#### **4.4.4.4 Existing Conditions**

##### **School Facilities Inventory, Chula Vista Elementary School District**

The Chula Vista Elementary School District's inventory consists of 35 elementary schools, including Casillas, as of June 1998. The district's newest school located at 1130 East "J" Street opened last fall. Table 13 lists existing schools together with the capacity and enrollment of each as reported in June, 1998. Capacity using existing permanent and relocatable buildings was 19,730. Enrollment in June, 1998 totaled 20,925. Twenty-seven of the 35 schools are over capacity. Twenty of the schools are on a traditional calendar and 15 are on a year-round calendar.

New elementary schools will be needed to meet the educational needs of students generated from the projected development and resultant population increase. The district reported a 5% increase in student population for the 1997-98 school year. This growth was reportedly due to:

1. Demographic changes in older neighborhoods in the west;
2. New growth in the eastern territories; and
3. Higher student generation ratios (students per household) in some new developments in the east.

Within the next eighteen months, the Rolling Hills and EastLake Trails Elementary Schools will be completed.

##### **School Facilities Inventory, Sweetwater Union High School District**

The Sweetwater Union High School District currently administers ten (10) junior high/middle schools and nine (9) senior high schools plus one continuation high school within the District. Of the nine junior highs, six have been converted to middle schools serving grades seven and eight. As the population grows, the District is projecting a need for and must secure funding for 3 middle schools and 3 high schools throughout the District's boundaries.

## Schools

**Table 29**  
**CHULA VISTA ELEMENTARY SCHOOL DISTRICT**  
**6-5-98 ENROLLMENTS VS. CAPACITY**

	6-5-98 Enrollment	Permanent & Relocatable Capacity	Over Capacity
Allen	456	430	26
Casillas	0	670	
Castle Park	582	600	
Chula Vista Hills	658	570	88
Clear View	586	540	46
Cook	535	500	35
Discovery	834	710	124
EastLake	814	750	64
Feaster	998	950	48
Finney	522	460	62
Halecrest	577	600	
Harborside	752	710	42
Hilltop Drive	574	570	4
Juarez—Lincoln	564	530	34
Kellogg	423	430	
Lauderbach	938	610	328
Loma Verde	706	640	66
Los Altos	498	460	38
Montgomery	425	430	
Mueller	757	610	147
Olympicview	752	740	12
Otay	675	500	175
Palomar	452	500	
Parkview	508	360	148
Rice	731	740	
Rogers	555	530	25
Rohr	541	530	11
Rosebank	705	670	35
Silver Wing	629	600	29
Sunnyside	598	570	28
Tiffany	730	610	120
Valle Lindo	525	500	25
Valley Vista	669	570	99
Vista Square	656	540	116
<b>Total</b>	<b>20,925</b>	<b>19,730</b>	<b>1,195</b>

**Table 30  
SWEETWATER UNION HIGH SCHOOL DISTRICT  
HIGH SCHOOL ENROLLMENTS VS. PERMANENT CAPACITY**

School	Permanent Design Capacity per State Loading Standard (27)	10/98 CBEDS Enrollment	Over Capacity
<b>High Schools</b>			
Bonita Vista	1,647	2,317	670
Castle Park	1,566	1,990	424
Chula Vista	1,377	2,198	821
EastLake	1,512	1,819	307
Hilltop	1,404	1,914	510
Mar Vista	1,242	1,826	584
Montgomery	1,431	2,186	755
Southwest	1,134	2,192	1,058
Sweetwater	1,674	1,962	288
Palomar	459	573	114
<b>Subtotal</b>	<b>13,446</b>	<b>18,977</b>	<b>5,531</b>
<b>Junior High/Middle Schools</b>			
Bonita Vista Mid	1,323	1,303	(20)
Castle Park Mid	1,377	1,282	(95)
Chula Vista Jr	972	1,407	435
Granger Jr	1,053	1,113	60
Hilltop Mid	1,215	1,242	27
Mar Vista Mid	1,215	1,341	126
Montgomery Mid	1,350	1,085	(265)
National City Mid	837	849	12
Rancho del Rey	945	655	(290)
Southwest Jr	783	1,211	428
<b>Subtotal</b>	<b>11,070</b>	<b>11,488</b>	<b>418</b>
<b>Total</b>	<b>24,516</b>	<b>30,465</b>	<b>5,949</b>
Learning Center		2,595	
<b>Total Enrollment</b>		<b>33,060</b>	

Note: The State Standard under SB 50 "loads" classrooms at 27 students per classroom. However, due to overcrowding at most schools, SUHSD often assigns more than 27 students per classroom. In addition, SUHSD has installed 253 relocatable classrooms on campuses throughout the district in order to meet the requirements of growth. Forty-two (42) of the relocatables meet the requirements of the State's Lease Purchase Program. By the Fall of 1999, SUHSD will have exhausted the ability to expand capacity by adding more relocatable classrooms. The current enrollment and temporary capacity district-wide is 29,517 students.

## Schools

SWEETWATER UNION HIGH SCHOOL DISTRICT		
Future Schools	Capacity	Est. Opening Date
Rancho del Rey Middle School	1,400	Fall 1998
Junior/Middle School in EastLake Woods	1,400	Contingent on build-out

### 4.4.4.5 School Sizing and Location

The San Miguel Ranch is proposed to consist of 1,394 dwelling units at build-out. At completion, the proposed project could generate approximately 864 students. The Vista Mother Miguel subdivision containing 43 dwelling units will generate approximately 26 students using the following Student Generation Factors:

Elementary (K-6)	=	.30	students/dwelling unit
Middle School (7-8)	=	.11	students/dwelling unit
High School (9-12)	=	.21	students/dwelling unit

The CVESD has discovered that the student generation ratio, which is used to predict student enrollment, is higher in some eastern area communities. For example, the District found that the EastLake community has a generation ratio of 0.44 children per household versus the current 0.30 ratio which amounts to a 47% increase over the average ratio. If this higher ratio were used in the San Miguel Ranch, the elementary population generation would be 613 or 194 more students than under the existing ratio. For Vista Mother Miguel, approximately 6 more students would be generated.

By phase and school category, San Miguel Ranch is expected to generate the following students:

Phase	Dwelling Units	Student Generation			Total Students
		Elementary .30 per DU	Middle .11 per DU	Sr. High .21 per DU	
1	489	146.7	53.8	102.7	303.2
2	472	141.6	51.9	99.1	292.6
3	320	96.0	35.2	67.2	198.4
4	113	33.9	12.4	23.7	70.0
<b>SPA Subtotal</b>	<b>1,394</b>	<b>418.2</b>	<b>153.3</b>	<b>292.7</b>	<b>864.2</b>

By phase and school category, the Vista Mother Miguel subdivision is expected to generate the following students:

Phase	Dwelling Units	Student Generation			Total Students
		Elementary .30 per DU	Middle .11 per DU	Sr. High .21 per DU	
1	43	12.9	4.7	9.0	26.6

The CVESD is in agreement with the location of the school site in San Miguel Ranch. The State Department of Education must approve the site prior to district acceptance. Due to the tremendous growth and enrollment in the CVESD, it is the district's intent to retain the 12.2 acre site as identified in the SPA Plan. However, should the site be determined at a later date to be excess property for the purposes of a new school, the district will notify appropriate parties at that time.

School Size Standards:

Elementary	600-650	students
Middle	1,500	students
Senior High	2,400	students

The Sweetwater Union High School District operates and maintains Bonita Vista Middle School and EastLake High School that are within the attendance boundaries of the San Miguel Ranch project and the Vista Mother Miguel subdivision. Both schools have been significantly impacted by growth. At Bonita Vista Middle (BVM), current enrollment exceeds permanent design capacity, however, nine relocatables have been added to the school site for growth. Enrollments at BVM have exceeded permanent and temporary capacity for the previous four years. At EastLake High, 24 portables contribute to available capacity which exceeds permanent design capacity. The placement of additional relocatables at these two school sites is not an option for further growth. The maximum capacity for expansion at both these sites has been reached.

At the projected rate of growth in the City of Chula Vista as provided to the SUHSD, approximately 2,000 new homes per year will generate 220 new middle school students and 420 new high school students annually. The cumulative impact of growth and the students generated from projects currently approved (EastLake, Rancho del Rey, Otay Ranch, and Sunbow) will absorb all existing school capacity in the SUHSD prior to the generation of students from the San Miguel Ranch project.



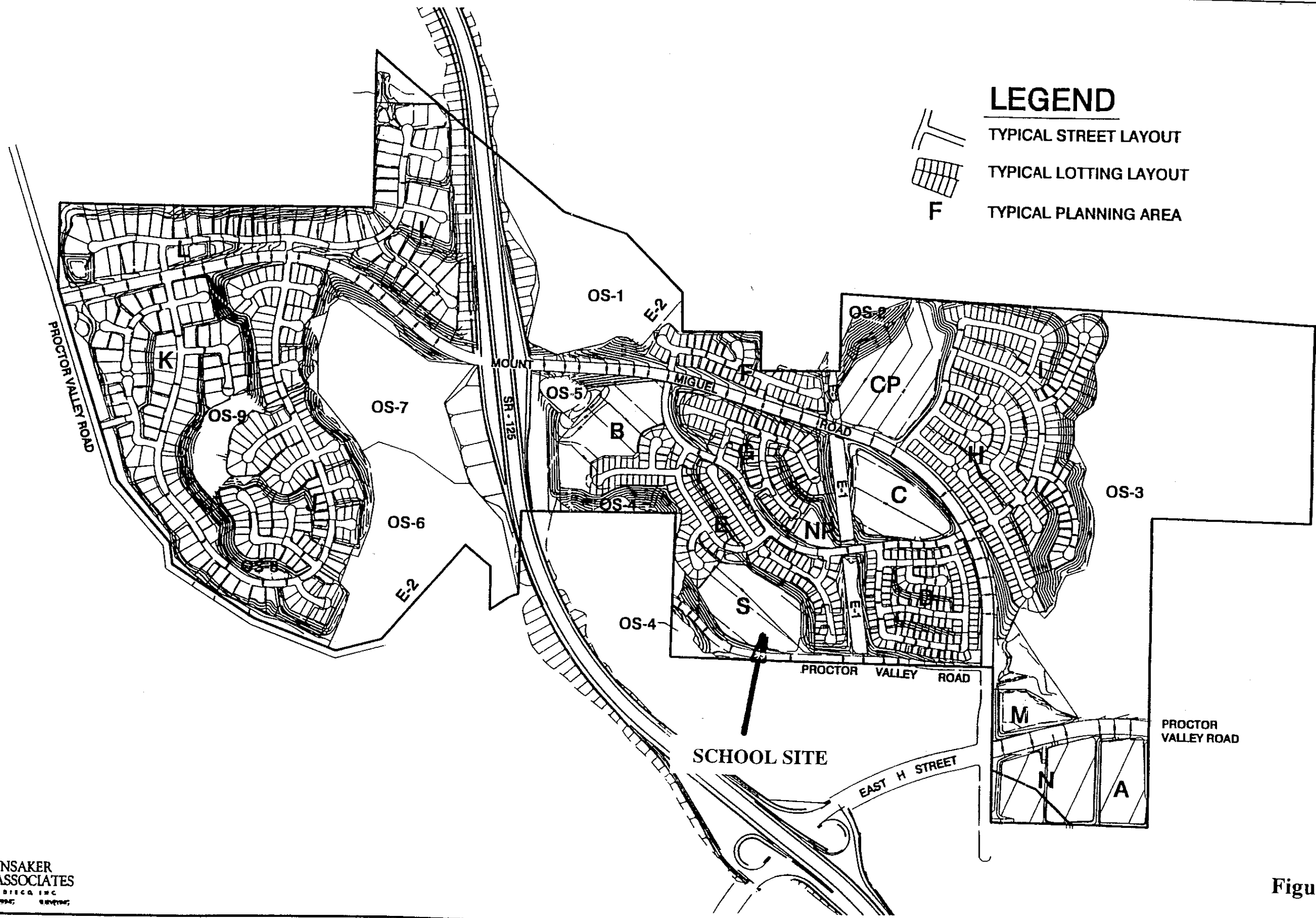
### 4.4.4.6 Financing School Facilities

California Government Code section 65995 et. seq. and Education Code Section 17620 et. seq. authorize school districts to impose facility mitigation exactions on new development as a way to address increasing enrollment caused by that development.

The current allowable rate for school fees has been limited by the recent passage of SB 50 (as Proposition 1A on November 3, 1998) to \$1.93 per square foot for residential construction and \$.31 per square foot for nonresidential. These amounts are divided between the two districts as follows: For the Sweetwater District - \$1.08 and \$0.17 per square foot for residential and nonresidential, respectively; and for the Chula Vista District - \$0.85 and \$0.14 per square foot for residential and nonresidential, respectively.

Although the collection of school fees is one method available to defray the cost of new development, it is not an acceptable solution since the maximum amount which could be collected by law represents less than one-fourth the cost to construct schools. The SUHSD is unable to meet the needs of this project with current school facilities and it is unable to construct new facilities to meet the impacts of this project through the provision of school fees.

In recognition of this funding deficiency, it is the policy of each district to fully mitigate the facility impacts caused by a master planned community via the creation of a Mello-Roos Community Facilities District as a condition of approval of the SPA Plan (CVESD) or prior to recordation of a final map (SUHSD).



**HUNSAKER & ASSOCIATES**  
 SAN DIEGO, INC.  
 PLANNING, ARCHITECTURE, SURVEYING

# San Miguel Ranch

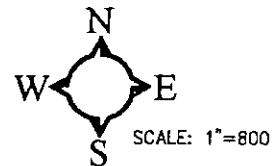


Figure 5

## SCHOOL SITE PLAN

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The following Mello-Roos Districts have been created by each district:

SUHSD

- CFD No. 1 EastLake
- CFD No. 2 Bonita Long Canyon
- CFD No. 3 Rancho del Rey
- CFD No. 4 Sunbow
- CFD No. 5 Annexable
- CFD No. 6 Otay Ranch
- CFD No. 7 Rolling Hills Estate
- CFD No. 8 Coral Gate (Otay Mesa)
- CFD No. 9 Ocean View Hills (Otay Mesa)
- CFD No. 10 Remington Hills/Annexable
- CFD No. 11 Lomas Verde

CVESD

- CFD No. 1 EastLake
- CFD No. 2 Bonita Long Canyon
- CFD No. 3 Rancho del Rey
- CFD No. 4 Sunbow
- CFD No. 5 Territory for Future Annexations
- CFD No. 6 Otay Ranch
- CFD No. 10 Annexable
- CFD No. 11 Otay Ranch (Lomas Verde) McMillin

The estimate of costs for the construction of school facilities is based on historical data available from each district. Both districts follow state standards for determining the costs and size for school construction. The costs, including land acquisition, for a high school is approximately \$16,004 per student (1998 dollars). Excluding land, the cost is \$12,700 per student. The costs, including land acquisition, for a middle school is approximately \$13,401 per student (1998 dollars). Excluding land, the cost is \$10,508 per student. The costs, including land acquisition, for an elementary school is approximately \$13,489 per student (1998 dollars). Excluding land, the cost is \$10,289 per student. Land value is calculated at \$200,000/acre sheet graded (10 acre school site)

Using the above costs per student together with the school size, the following costs per facility can be anticipated.

Elementary School Cost

(625 students) (\$10,289/student w/o land cost)	\$6,430,525
(625 students) (\$13,489/student w/land cost)	\$8,430,625

**Schools**

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Middle School Cost

(1,500 students) (\$13,000/student w/o land cost)	\$19,500,000
(1,500 students) (\$16,333/student w/ land cost)	\$18,761,400

High School Cost

(2,500 students) (\$13,960/student w/o land cost)	\$34,900,000
(2,500 students) (\$17,960/student w/ land cost)	\$44,900,000

**4.4.4.7 Threshold Compliance and Recommendations**

As future development applications are processed in the Eastern Territories, the City shall coordinate with each school district to ensure that development does not occur until acceptable school site(s) are identified and a financing mechanism satisfactory to each district is in place.

Prior to SPA approval, the project proponent(s) shall provide documentation to the City confirming satisfaction of SUHSD and CVESD facility funding requirements to offset student generation impacts. Funding shall be satisfied through the Mello-Roos Community Facilities District financing method or other means acceptable to each District.

In addition, condition the first tentative map to require that no final map shall be approved unless and until a school facility financing mechanism is in place to the satisfaction of the Sweetwater Union High School District and the Chula Vista Elementary School District.

#### **4.4.5 LIBRARIES**

## **4.4.5 LIBRARIES**

### **4.4.5.1 Threshold Standard**

Population ratio: 500 square feet (gross) of library adequately equipped and staffed facility per 1,000 population.

### **4.4.5.2 Service Analysis**

Library facilities are provided by the City of Chula Vista Library Department.

### **4.4.5.3 Project Processing Requirements**

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify phased demands in conjunction with the construction of streets, water and sewer facilities.
2. Specifically identify facility site in conformance with the *1998 Chula Vista Library Master Plan*.

### **4.4.5.4 Existing Conditions**

The City currently provides library services through the Chula Vista Public Library at Fourth and "F" Street (Civic Center), the South Chula Vista Library in the Montgomery/Otay planning area, and the library at the EastLake High School. The Castle Park and Woodlawn Libraries have been closed.

The existing libraries are listed in Table 33.

<b>Existing Libraries</b>	<b>Square Footage</b>
Chula Vista (Civic Center)	55,000
South Chula Vista	37,000
EastLake	10,000
<b>Total Existing Square Feet</b>	<b>102,000</b>

### **4.4.5.5 Adequacy Analysis**

Using the threshold standard of 500 square feet of library space per 1,000 population, the demand for library space based on a January 1, 1998 population of 162,047 is 81,024 square feet. Chula Vista currently provides 102,000 square feet of library space. This

represents a 20,976 square foot surplus. The demand generated by the 13,501 forecasted dwelling units is 20,083 square feet  $((13,501 \times 2.975/1,000) \times 500)$ . The demand for library space generated by existing and forecasted dwelling units totals 101,107 (81,024 + 20,083) square feet. Comparing this demand to the existing library square footage of 102,000 square feet results in a small surplus of 893 square feet after build-out of the 13,501 forecasted dwelling units.

A new Library Master Plan Update was adopted by the City Council on December 8, 1998. The Update addresses such topics as library siting and phasing, the impacts of new technologies on library usage, and floor space needs. The plan calls for the construction of a full service regional library of approximately 30,000 square feet east of I-805 by the year 2005. The plan also recommends that this first branch be built in the Rancho del Rey area. However, with construction of this facility, the 10,000 square foot EastLake Library is recommended to be closed. Therefore, the net gain in library space is 20,000 square feet for a total by the year 2005 of 122,000 square feet.

Future library facilities are listed in Table 34.

Future Libraries	Net Square Footage	Estimated Cost
1 <sup>st</sup> east side regional library (RDR) @ 30,000 sf	20,000 <sup>9</sup>	\$12,000,000
2 <sup>nd</sup> east side regional library @ 30,000 sf	30,000 <sup>10</sup>	
<b>Total Future Net Square Feet</b>	<b>50,000</b>	
<b>Total Master Plan Library Square Feet (existing and future)</b>	<b>152,000</b>	

The following table highlights existing plus forecasted project demands for library space as compared to the existing and scheduled library space as well as the impact of the San Miguel Ranch and Vista Mother Miguel projects on library facilities.

<sup>9</sup> Assumes construction of the first 30,000-square foot east side regional library by year 2005 and the closure of the 10,000-square foot EastLake library, per the 1998 Library Master Plan.

<sup>10</sup> Assumes construction of the second 30,000-square foot east side regional library, per the 1998 Library Master Plan.

## Libraries

	Population	Demand Square Footage	Supply Square Footage	Above/ (Below) Standard
Existing (Citywide)	162,047	81,024	102,000	20,976
Forecasted Projects (13,501 x 2.975)	40,165	20,083		
1 <sup>st</sup> east side regional library (net sf)			20,000	-83
<b>Subtotal</b>	<b>202,212</b>	<b>101,107</b>	<b>122,000</b>	<b>20,893</b>
<b>San Miguel Ranch by Phase</b>				
1	489DU	1,455 <sup>11</sup>	728	20,165
2	472DU	1,404	702	19,463
3	320DU	952	476	18,987
4	113DU	336	168	18,819
<b>Subtotal</b>	<b>1,394DU</b>	<b>4,015</b>	<b>2,074</b>	<b>18,819</b>
<b>Vista Mother Miguel</b>				
1	43DU	128	64	18,755
<b>Subtotal</b>	<b>43DU</b>	<b>128</b>	<b>64</b>	<b>18,755</b>
<b>TOTAL</b>	<b>206,355</b>	<b>103,245</b>	<b>122,000</b>	<b>18,755</b>

San Miguel Ranch will generate a total library demand of 2,074 square feet, and the Vista Mother Miguel subdivision will generate demand for 64 square feet, which results in a citywide positive balance of 18,755 square feet.

### 4.4.5.6 Financing Library Facilities

The estimated \$12 million in library construction and book collection costs will be funded with Public Facility Development Impact Fees. In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for nine categories of public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The fees were updated by adoption of Ordinance No. 2554 on April 27, 1993. The current fee is \$2,150 per equivalent dwelling unit.

The portion of the fee attributable to libraries is \$544/EDU

The San Miguel Ranch project and the Vista Mother Miguel subdivision are within the boundaries of the current public facilities DIF program, and the projects will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At

<sup>11</sup> Population calculated at 2.975 persons per dwelling unit



the current library fee rate, the San Miguel Ranch library obligation at build-out is \$804,739. The obligation for Vista Mother Miguel is \$23,392.

<b>Development Phase</b>	<b>EDU's</b>	<b>Library Fee @ \$544/EDU</b>
1	489.0	\$266,016
2	472.0	256,768
3	320.0	174,080
4	198.3	107,875
<b>Total</b>	<b>1,479.3</b>	<b>\$804,739</b>

<b>Development Phase</b>	<b>EDU's</b>	<b>Library Fee @ \$544/EDU</b>
1	43.0	\$23,392
<b>Total</b>	<b>43.0</b>	<b>\$23,392</b>

#### **4.4.5.7 Threshold Compliance and Recommendations**

Based upon the analysis contained in this library section, it is projected that the library threshold standard will be maintained throughout the development of the San Miguel Ranch project and the Vista Mother Miguel subdivision. The existing plus proposed new library space totals 122,000 square feet, while the existing, total forecasted projects, San Miguel Ranch project demand and Vista Mother Miguel demand totals 103,245 square feet. This results in an excess (above standard) supply of 18,755 square feet.

No mitigation is required other than the payment of the Public Facilities DIF for library facilities at the rate in effect at the time building permits are issued.

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#### **4.4.6 PARKS, TRAILS AND OPEN SPACE**

## **4.4.6 PARKS, TRAILS AND OPEN SPACE**

### **4.4.6.1 Park Threshold Standard**

Three (3) acres of neighborhood and community parkland with appropriate facilities shall be provided per 1,000 residents east of Interstate 805.

### **4.4.6.2 Service Analysis**

The City of Chula Vista provides public park and recreational opportunities through the Planning, Public Works, and Library/ Recreation Departments which are responsible for the acquisition and development of parkland. All park development plans are reviewed by City staff and presented to the Parks and Recreation Commission for review. A recommendation is made by this Commission to the deciding body, the City Council.

The Parks and Recreation Element of the General Plan dated July 1990 and revisions through September 5, 1995, serves as the master plan for park facilities. While there is currently no existing citywide detailed parks master plan, the City is nearing completion of a new Park Master Plan which it expects to forward to the City Council for adoption.

### **4.4.6.3 Project Processing Requirements**

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify phased demands in conformance with street improvements and in coordination with the construction of water and sewer facilities.
2. Specific siting of the facility will take place in conformance with the *Chula Vista General Plan Park and Recreation Element*.
3. Site reserved.

### **4.4.6.4 Existing Conditions**

The existing and future parks as depicted in the Park and Recreation Element of the General Plan and as updated by the inclusion of more recent information are contained in Tables 41 and 42.

### **4.4.6.5 Project Park Requirements**

#### **Compliance with Public Park Standards**

All new development in the City of Chula Vista is subject to the requirements contained in the City's Parkland Dedication Ordinance revised June 22, 1991, which is confirmed in Municipal Code Chapter 17.10. The ordinance establishes land development fees for park acquisition and development, sets standards for dedication and establishes criteria

for acceptance of parks and open space by the City of Chula Vista. Parkland dedication requirements are shown on Table 38.

Dwelling Unit Type	Land Dedication per Unit	Dwelling Units per Park Acre
Single-Family — Detached	423 sf/du	102.9 du/ac
Single-Family — Attached	366 sf/du	119.0 du/ac
Multiple-Family	288 sf/du	151.0 du/ac

Parkland dedication requirements for the San Miguel Ranch project are outlined in Table 39 and in Table 40 for the Vista Mother Miguel subdivision.

Dwelling Unit Type	Parkland Required/DU	Number of DU's	Park Acres Required
Single Family - Detached	423 sf/du	1,063	10.3
Single Family - Attached	366 sf/du	0	0.0
Multiple Family	288 sf/du	331	2.2
<b>TOTALS</b>		<b>1,394</b>	<b>12.5</b>

Dwelling Unit Type	Parkland Required/DU	Number of DU's	Park Acres Required
Single Family - Detached	423 sf/du	43	0.4
Single Family - Attached	366 sf/du	0	0.0
Multiple Family	288 sf/du	0	0.0
<b>TOTALS</b>		<b>43</b>	<b>0.4</b>

The San Miguel Ranch Phasing and Site Utilization Plan contained in Table 5 identifies the park designations and acreage that are also shown in Table 43. Table 43 also identifies the phase of development in which the park will be constructed and the park acres that the city has determined will be given credit for purposes of satisfying the project's parkland dedication as measured against the City's Parkland Dedication Ordinance. All parkland will be graded and offered for dedication in the context of the development of Phase One of the San Miguel Ranch project.

The Vista Mother Miguel subdivision Phasing and Site Utilization Plan contained in Table 6 identifies no park designations or acreage to be supplied by this development.

## Parks, Trails and Open Space

**Table 41**  
**Chula Vista Existing Park Inventory**

	Acres <sup>12</sup>	
	<u>West</u> <u>of I-805</u>	<u>East</u> <u>of I-805</u>
<b><u>Community Parks</u></b>		
Eucalyptus Park	19.80	
Chula Vista Community Park		12.9
Greg Rogers Park		52.1
Rohr Park		62.2
J Street Marina, Bayside Park	21.40	
Discovery Park		<u>14.5</u>
<b>Total Existing Community Acres:</b>	<b>40.20</b>	<b>141.7</b>
<b><u>Neighborhood Parks</u></b>		
Marina View Park	4.50	
Friendship Park	8.40	
Memorial Park	8.00	
Explorer Park		6.0
Norman Park	1.70	
Hilltop Park	10.90	
Lauderbach Park	4.00	
Palomar Park	3.10	
Orange Avenue Fields	4.00	
Reinstra Ball Field	6.00	
Loma Verde Park	6.20	
SDG&E Park	18.00	
Otay Park	5.20	
Los Niños Park	5.20	
Bay Boulevard Park	1.50	
Valle Lindo Park		4.3
Halecrest Park		2.0
Terra Nova Park		8.6
Independence Park		4.1
Tiffany Park		7.2
Paseo del Rey Park		3.0
Bonita Long Canyon Park		12.5
Sunridge Park		6.0
Sunbow I Park		4.0
Rancho del Rey Park		10.2
Connoley Park	.65	
Holiday Estates I	.26	
Holiday Estates II	.26	
Lancerlot Park	.10	
Voyager Park		11.0
Sherwood Park	<u>.28</u>	
<b>Total Existing Neighborhood Acres:</b>	<b>88.25</b>	<b>78.80</b>
<b>EXISTING INVENTORY TOTAL</b>	<b>128.45</b>	<b>229.50</b>

<sup>12</sup> Inventory and acreages provided by the Planning Department.

**Table 42  
Chula Vista Future Parks**

	Acres <sup>13</sup>	
	<u>West of I-805</u>	<u>East of I-805</u>
<b><u>Future Community Parks</u></b>		
San Miguel Ranch		15.0
Salt Creek		19.8
Rolling Hills Ranch		20.0
Eastern Urban Center		20.0
Wolf Canyon		25.0
Sunbow II Community		<u>10.5</u>
Montgomery	<u>24.0</u>	
<b>Total Future Community Park Acres:</b>	<b>24.0</b>	<b>110.3</b>
<b><u>Future Neighborhood Parks</u></b>		
Marisol Park		6.0
Rancho Drive Park	16.0	
EastLake Greens		10.0
Bayfront		7.0
F Street & Woodlawn		5.0
Otay Valley Road & Brandywine		5.0
EastLake Woods		7.0
EastLake Vistas		10.0
Rolling Hills Ranch		7.0
Otay Ranch Parks:		
Village 1 - Unnamed		11.6
Village 1 - Unnamed		7.0
Village 1 West - Unnamed		5.0
Village 2 - Unnamed		10.0
Village 4 - Unnamed		3.4
Village 5 - Unnamed		6.7
Village 5 - Unnamed		5.7
Village 5 - Unnamed		2.0
Village 5 - Unnamed		1.3
Village 6 - Unnamed		10.0
Village 7 - Unnamed		9.3
Village 8 - Unnamed		8.9
Village 11 - Unnamed		<u>10.0</u>
<b>Total Future Neighborhood Park Acres:</b>	<u><b>16.0</b></u>	<u><b>147.9</b></u>
<b>TOTAL FUTURE PARK ACRES</b>	<b>40.0</b>	<b>258.2</b>

<sup>13</sup> Inventory and acreages provided by the Planning Department.

**LEGEND**

- OS OPEN SPACE
- CP COMMUNITY PARK - PUBLIC
- NP NEIGHBORHOOD PARK - PRIVATE
- P LOCAL PARK - PUBLIC

**MULTI PURPOSE TRAIL SYSTEM**

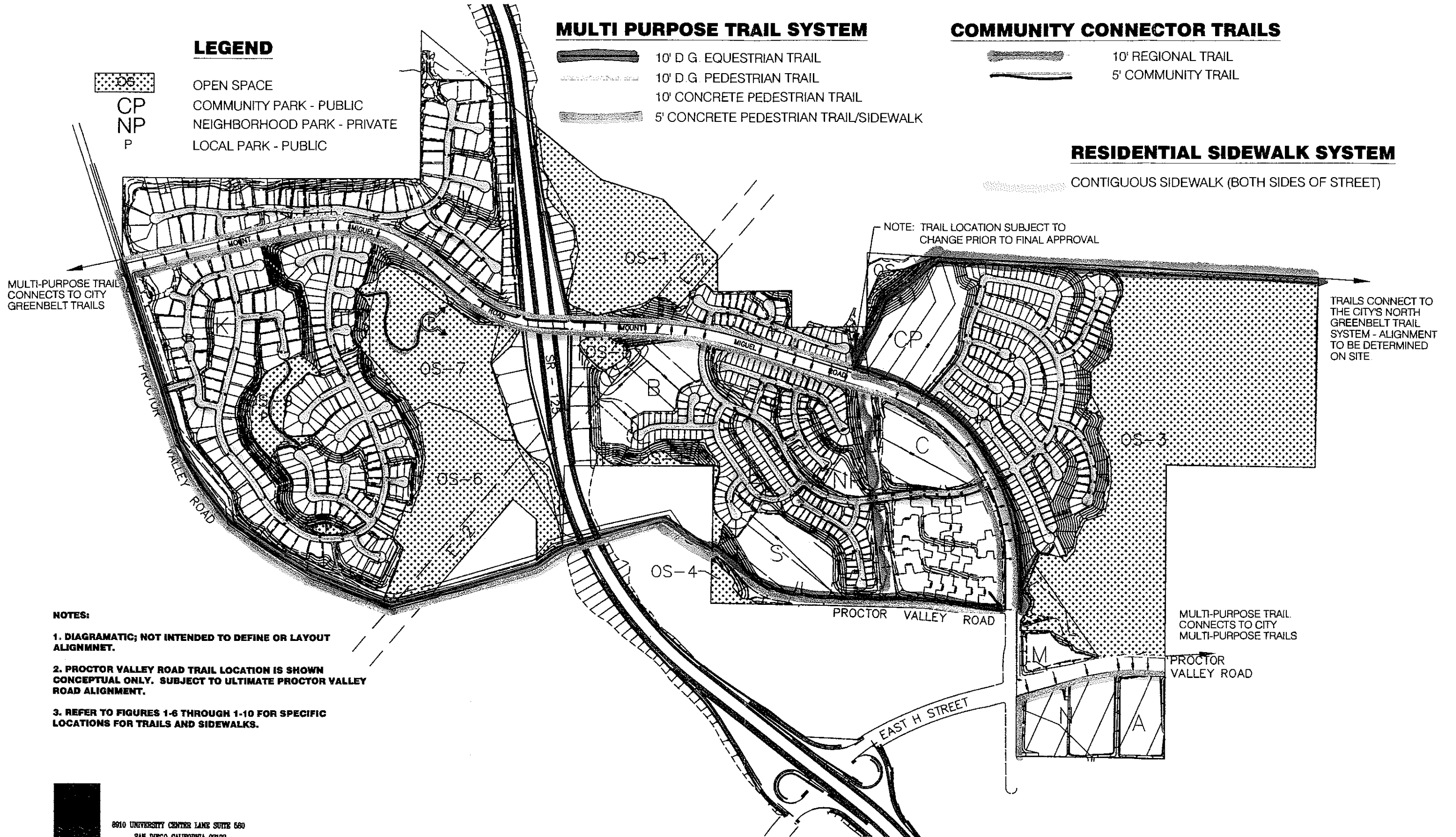
- 10' D.G. EQUESTRIAN TRAIL
- 10' D.G. PEDESTRIAN TRAIL
- 10' CONCRETE PEDESTRIAN TRAIL
- 5' CONCRETE PEDESTRIAN TRAIL/SIDEWALK

**COMMUNITY CONNECTOR TRAILS**

- 10' REGIONAL TRAIL
- 5' COMMUNITY TRAIL

**RESIDENTIAL SIDEWALK SYSTEM**

- CONTIGUOUS SIDEWALK (BOTH SIDES OF STREET)

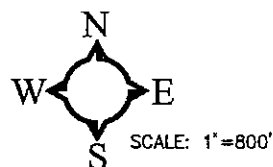


**NOTES:**

1. DIAGRAMATIC; NOT INTENDED TO DEFINE OR LAYOUT ALIGNMENT.
2. PROCTOR VALLEY ROAD TRAIL LOCATION IS SHOWN CONCEPTUAL ONLY. SUBJECT TO ULTIMATE PROCTOR VALLEY ROAD ALIGNMENT.
3. REFER TO FIGURES 1-6 THROUGH 1-10 FOR SPECIFIC LOCATIONS FOR TRAILS AND SIDEWALKS.

8910 UNIVERSITY CENTER LANE SUITE 560  
 SAN DIEGO CALIFORNIA 92122  
 619 - 558 - 8977  
 FAX 619 - 558 - 9188

**San Miguel Ranch**



**Figure 6**

**TRAILS, PARKS AND OPEN SPACE PLAN**



PARK IDENTIFICATION	NET ACRE- AGE	PHASE	PROPOSED CREDIT %	ELIGIBLE CREDIT ACRES
CP - COMMUNITY PARK	15.2	1	100%	15.2
NP - NEIGHBORHOOD PARK (PRIVATE)	3.2	2	0%	0.0
<b>TOTAL ACRES ELIGIBLE FOR CREDIT AGAINST PAD</b>				<b>15.2</b>
<b>SAN MIGUEL RANCH PAD REQUIREMENTS</b>				<b>12.5</b>
<b>SAN MIGUEL RANCH EXCESS PAD ACREAGE</b>				<b>2.7</b>

#### 4.4.6.6 Park Adequacy Analysis

Table 44 is a comparison of park acreage demands and supply east of Interstate 805 for existing, approved projects, as well as the phased addition of the San Miguel Ranch project and the Vista Mother Miguel subdivision.

	Population East of I-805	Demand Park Acres	Supply Park Acres	Eligible Credit Acres	Net Acres +/- Standard	Project Cumulative +/- Standard
Existing	49,025 <sup>14</sup>	147.1	209.7	209.7	62.6	n/a
Forecasted Projects	40,165 <sup>15</sup>	120.5	81.3	81.3	-39.2	n/a
<b>Subtotal</b>	<b>89,190</b>	<b>267.6</b>	<b>291.0</b>	<b>291.0</b>	<b>23.4</b>	<b>n/a</b>
<b>San Miguel Ranch by Phase</b>						
1	489DU	1,408	4.2	21.6	15.2	11.0
2	472DU	1,359	4.1	0.0	0.0	-4.1
3	320DU	922	2.8	0.0	0.0	-2.8
4	113DU	325	1.0	0.0	0.0	-1.0
<b>Subtotal</b>	<b>1,394</b>	<b>4,015</b>	<b>12.1</b>	<b>21.6</b>	<b>15.2</b>	<b>3.1</b>
<b>Vista Mother Miguel subdivision</b>						
1	43DU	124	0.4	0.0	0.0	-0.4
<b>Subtotal</b>	<b>124</b>	<b>0.4</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.4</b>	<b>-0.4</b>
<b>TOTAL</b>	<b>93,205</b>	<b>280.1</b>	<b>312.6</b>	<b>306.2</b>	<b>26.1</b>	

<sup>14</sup> Population figure furnished by City Planning Department.

<sup>15</sup> Population calculation: 13,501 DU's @ 2.975/DU

## **Parks, Trails and Open Space**

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A review of the existing and approved park demands with the addition of San Miguel Ranch and Vista Mother Miguel subdivision indicates a total demand for 280.1 acres of neighborhood and community park east of Interstate 805. The supply of park acres is 312.6 which is 32.5 acres more than the demand.

### **Private Neighborhood Park**

The San Miguel Ranch SPA plan identifies one 3.2 acre private neighborhood park. It will be located on the edge of the SDG&E easement within phase 2. The proposed private facility will be owned and maintained by a Master Community Association. No neighborhood parks are planned for the Vista Mother Miguel subdivision.

### **Community Park**

The San Miguel Ranch SPA Plan provides for a 21.6 gross acre or 15.2 net acre community park. The community park will be connected to the natural open space area that borders the northern boundary of the park and will link the city's greenbelt system. The park will be located on the edge of the SDG&E easement within phase 1. The precise boundary and size of this area will be determined by the Tentative Tract Map process. No community parks are planned for the Vista Mother Miguel subdivision.

## **4.4.6.7 Open Space and Trails**

### **Open Space**

A total of 2,065 acres, or 80 percent, of the original San Miguel Ranch ownership was devoted to the creation of an ecological reserve for the preservation and protection of sensitive lands and natural resources in accordance with the City's draft Sub Area Plan and the draft Multiple Species Conservation Plan (MSCP) which is intended to serve as a sub-regional plan under the California State Natural Communities Conservation Planning (NCCP) Act (the MSCP/NCCP Program).

Established as part of the National Wildlife Refuge in August of 1997, this reserve encompasses the entire 1,852-acre North parcel consistent with the General Development Plan (GDP). An additional 213 acres in the South Parcel addressed by the SPA Plan are designated for preservation to further mitigate impacts to the area, which includes the designated Otay Tarplant preserve. These open space areas of the South Parcel provide a significant natural habitat component within San Miguel Ranch.

The eastern portion of the South Parcel will remain as natural open space, preserving the ridgeline and prominent rock outcroppings as well as the sensitive habitat located in that

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area. Additional natural open space will be provided in the western portion to the South Parcel adjacent to the Low and Low Medium development areas of the project.

The open space of San Miguel Ranch provides a key segment of the City's greenbelt. The greenbelt will be connected by trails from within San Miguel Ranch.

### Trails

San Miguel Ranch is served by four types of trails. These include:

- Multi-purpose/Equestrian trails;
- Greenbelt trails;
- Regional trails; and
- Community trails.

These trails provide non-vehicular circulation throughout the community linking San Miguel Ranch with the adjacent regional trail system within the City's greenbelt. The trails also provide limited and controlled access into the open space areas and provide access for San Miguel Ranch neighborhoods to the parks and community facilities. Figure 6, Trails Map, shows the location of the main framework of the trails system. It should be noted that these trails are in addition to concrete sidewalks required as part of street construction.

#### Multi-Purpose/Equestrian Trail

The Multi-Purpose/Equestrian Trail is designed to create interconnection between an area-wide equestrian and hiking trail system. The trail will be 10 feet wide depending upon the location and topography and will utilize the existing dirt roads or be constructed of decomposed granite. As there are many issues that affect the final location of the trail, two optional equestrian routes are proposed at this time and are depicted on Figure 6. Option One, the preferred route, parallels Proctor Valley Road and would make use of the proposed SR-125 bridge to facilitate a safe undercrossing. The trail linking Phase 1 and Phase 3 development should be constructed during Phase 3 development and the completion of Proctor Valley Road in that area.

#### Greenbelt/Multi-Purpose Trail

In accordance with the Chula Vista General Plan, the Greenbelt Trail is a continuous 26 mile loop trail that circumvents the city. The trail is designed as a ten foot wide, grade separated trail free from vehicular traffic. The trail is proposed along the north side of Mount Miguel Road to be constructed of concrete.

Where the Equestrian and Greenbelt trails coincide, it is required that there be two 10 foot wide trails with the equestrian use trail being constructed of decomposed granite and containing a railing along its sides.

### Regional Trail

Regional trails typically run north/south, east/west and provide the internal framework and connections to the Greenbelt Trail. Existing trails and service roads will be utilized as much as possible. Where the new Regional Trail is required adjacent to Mt. Miguel Road, it shall be 10 feet wide and constructed of concrete. Other segments of the trail, as in the SDG&E easement located in the south-east area, shall also be 10 feet wide but may be constructed of decomposed granite.

### Community Trails

Community trails provide access to regional trails and destination points and are typically the internal routes of communities and neighborhoods. They can be similar in design to regional trails but are determined by volume. In some cases, the trail will be the concrete sidewalk in residential areas.

All trails will be designed and constructed to City standards.

#### **4.4.6.8 Financing Park, Open Space, and Trail Facilities**

The financing of parkland and improvements is governed by Chapter 17.10 of the Chula Vista Municipal Code as amended June 22, 1991. Included as part of the regulations are Park Acquisition and Development (PAD) fees established for the purpose of providing neighborhood and community parks and improvements. The Ordinance provides that fees are paid to the City prior to approval of a final subdivision map.

The San Miguel Ranch project and the Vista Mother Miguel subdivision are each responsible for the following park development component of the PAD Fees as shown in the following tables. However, an applicant may dedicate and construct parks and receive credit against the payment of such PAD fees as further described below.

**TABLE 45  
SAN MIGUEL RANCH  
PARK ACQUISITION AND DEVELOPMENT (PAD) FEES  
DEVELOPMENT COMPONENT ONLY**

PHASE	DWELLING UNITS			DEVELOPMENT COMPONENT OF PAD FEES/DU			TOTAL FEES DUE
	SFD	SFA	MFD	SFD @ \$2,260	SFA @ \$1,980	MFD @ \$1,550	
1	489	0	0	1,105,140	0	0	1,105,140
2	254	0	218	574,040	0	337,900	911,940
3	320	0	0	723,200	0	0	723,200
4	0	0	113	0	0	175,150	175,150
<b>TOTAL</b>	<b>1,063</b>	<b>0</b>	<b>331</b>	<b>\$2,402,380</b>	<b>\$0</b>	<b>\$513,050</b>	<b>\$2,915,430</b>

The San Miguel Ranch project will provide 15.2 net acres of parkland which is 2.7 acres in excess of the project's demand of 12.5 acres as identified in Table 43. Table 45 identifies the fees calculated for the development component of the PAD fees while Table 45A identifies the fees calculated for the parkland acquisition component of the PAD fees. The applicant has an opportunity to dedicate the 12.5 acres in lieu of paying the acquisition component of the PAD fees, which has been calculated in Table 45A to be \$2,724,885.

**TABLE 45A  
SAN MIGUEL RANCH  
PARK ACQUISITION AND DEVELOPMENT (PAD) FEES  
ACQUISITION COMPONENT ONLY**

PHASE	DWELLING UNITS			ACQUISITION COMPONENT OF PAD FEES/DU			TOTAL FEES DUE
	SFD	SFA	MFD	SFD @ \$2,115	SFA @ \$1,830	MFD @ \$1,440	
1	489	0	0	1,034,235	0	0	1,034,235
2	254	0	218	537,210	0	313,920	851,130
3	320	0	0	676,800	0	0	676,800
4	0	0	113	0	0	162,720	162,720
<b>TOTAL</b>	<b>1,063</b>	<b>0</b>	<b>331</b>	<b>\$2,248,245</b>	<b>\$0</b>	<b>\$476,640</b>	<b>\$2,724,885</b>

PHASE	DWELLING UNITS			PAD FEES/DU			TOTAL FEES DUE
	SFD	SFA	MFD	SFD @ \$4,375	SFA @ \$3,810	MFD @ \$2,990	
<b>1</b>	43	0	0	188,125	0	0	<b>188,125</b>
<b>TOTAL</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>\$188,125</b>	<b>\$0</b>	<b>\$0</b>	<b>\$188,125</b>

**4.4.6.9 Threshold Compliance and Recommendations**

Based upon the analysis contained in this section of the PFFP, the parks standard for both neighborhood and community parks measured on an area-wide basis east of Interstate 805 is projected to be met at the completion of both the San Miguel Ranch project and the Vista Mother Miguel subdivision.

On a project-level, the community park provided within San Miguel Ranch SPA meets the demand on a cumulative basis. In order to comply with the City's local park standard, it is the responsibility of the developer to comply with the City's Landscape Manual related to park planning, to grade the sites according to the approved plan, and to install improvements or pay fees, or a combination thereof, as required by the City's Parkland Dedication Ordinance.

**Community Park Phasing**

1. Prior to the issuance of a building permit for the first DU, dedication of the park land, grading of the site and providing all required underground utilities to the site shall be completed.
2. Prior to the issuance of a building permit for the 800th DU, construction of the community park and facilities shall commence.
3. Prior to the issuance of a building permit for the 960th DU, the community park and facilities shall be ready for acceptance by the City.

Due to the fact that the City is in the process of preparing and adopting a citywide master plan, the park phasing may be refined during the tentative map process.

In addition, each developer shall participate financially in proportion to other developers in a collaborative study analyzing local parks needs for the area east of I-805 Freeway prior to approval of the first final map

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The park may be constructed under one of two alternative processes as follows:

1. The City collects PAD fees for development of the park facilities and the City uses such fee revenues to construct the park; or
2. The City accepts a "turn-key" park constructed by the Applicant/developer. The City's Planning Division acts to oversee the process to insure the park is constructed to City standards, which includes selecting the design and engineering consultants as well as the prime contractor.

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**4.4.7 WATER**

## **4.4.7 WATER**

### **4.4.7.1 Threshold Standard**

1. Developer will request and deliver to the City a service availability letter from the Water District for each project, as defined by the City.
2. The City shall annually provide the San Diego County Water Authority, the Sweetwater Authority, and the Otay Water District with a 12 to 18 month development forecast and request an evaluation of their ability to accommodate the forecast and continuing growth. The Districts' replies should address the following:
  - A. Water availability to the City and Planning Area, considering both short and long term perspectives.
  - B. Amount of current capacity, including storage capacity, now used or committed.
  - C. Ability of affected facilities to absorb forecasted growth.
  - D. Evaluation of funding and site availability for projected new facilities.
  - E. Other relevant information the District(s) desire(s) to communicate to the City and GMOC

The growth forecast and water district response letters shall be provided to the GMOC for inclusion in its review.

### **4.4.7.2 Service Analysis**

Water is provided to the City of Chula Vista through the San Diego County Water Authority, Sweetwater Authority, and the Otay Water District. The City of Chula Vista is working with each of these special districts to ensure that new growth will not reduce the availability of adequate water supplies or jeopardize the water quality standards within the City. Each of these districts is responsible for providing capital facilities necessary to accommodate future growth as well as providing services to existing development within the City of Chula Vista.

The Sweetwater Authority utilizes the *Sweetwater Authority Water Master Plan*, dated December, 1989.

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The Otay Water District utilizes the 1995 *Water Resources Master Plan* prepared by Montgomery Watson. The document is the planning document used for all future CIP water facilities work. An environmental impact report was also prepared to assess the impacts of the Master Plan.

An *Overview of Water Service for San Miguel Ranch* dated December 1, 1998 was prepared by Wilson Engineering. Prior to approval of engineering plans for the project and prior to approval of the tentative map, the applicant shall prepare a Subarea Master Plan (SAMP) for water, and have it reviewed and approved by Otay Water District. The plan shall address both potable and recycled water systems

#### **4.4.7.3 Project Processing Requirements**

##### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify phased demands in conformance with street improvements and in coordination with the construction of sewer facilities.
2. Identify location of facilities for onsite and offsite improvements in conformance with the master plan of the water district serving the proposed project.
3. Provide cost estimates and proposed financing responsibilities.
4. Identify financing methods.
5. A Water Conservation Plan shall be required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDU's of water demand or greater).

#### **4.4.7.4 Existing Conditions**

Much of the water used in the San Diego County Water Authority (SDCWA) area is imported from the Metropolitan Water District. MWD receives its water supply through the State Water Project and the Colorado River Aqueduct. The San Diego County Water Authority conveys water from the MWD to local purveyors within San Diego County.

San Miguel Ranch is located entirely within the Otay Water District's Central Service Area

Potable water is provided to the Central Service Area by the SDCWA via the Second San Diego Aqueduct. Water is delivered at Aqueduct connections No. 10 and No. 12 and is conveyed by gravity to the District's terminal reservoirs at a grade of 624 feet. One hundred percent of Otay Water District's demand is satisfied by purchases from the SDCWA together with use of recycled water from the Ralph W. Chapman Water Recycling Facility (RWCWRF). A small amount is also purchased from the Helix Water District (HWD).

The delivery and guaranteed availability of water to the City of Chula Vista continues to improve through the cooperative efforts of the water districts and the SDCWA.

#### **4.4.7.5 Adequacy Analysis**

##### **Water Conservation Plan**

A Water Conservation Plan is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDU's of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects which are not processed through a Planned Community Zone.

The *Water Conservation Plan For San Miguel Ranch* prepared by Wilson Engineering dated December 1, 1998, provides an analysis of water usage requirements of the proposed project, as well as a detailed plan of proposed measures for water conservation, use of reclaimed water, and other means of reducing per capita water consumption from the proposed project, as well as defining a program to monitor compliance. The Water Conservation Plan is contained in the SPA Plan document and is, therefore, not a part of the Public Facilities Financing Plan.

##### **San Miguel Ranch Water Demand**

San Miguel Ranch is within the Otay Water District's 711 and 980 pressure zones. Water demand is projected using unit demand factors from the April 1995 Otay Water District Resources Master Plan. The projected annual demand is 714.6 acre feet per year or .64 MGD.

Until recently, the policy of the Otay Water District was to provide emergency storage equivalent to ten average days' demand. However, this policy has recently been revised to provide a maximum of five average days of terminal storage capacity and a minimum of five average days of supply from interconnections and other sources. Adequate capacity exists to meet the five-day storage requirement.

##### **Otay Water District Master Plan**

The Otay Water District's water and reclaimed water master plan includes water demands for this project as part of the overall demands in the area based upon land use data.

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#### 4.4.7.6 Existing Facilities

##### Potable Water

The Central Service Area is supplied from two connections to the SDCWA aqueduct which fills 624 Zone reservoirs. Water is then distributed within the 624 Zone and pumped to the 711 Zone and 980 Zone storage and distribution systems.

There is an existing 16-inch water main in Mount Miguel Road that is part of the 980 Zone. The main terminates at a 980/711 Zone pressure reducing station near the intersection of Mount Miguel Road and Proctor Valley Road. From there, a 12-inch water line in Proctor Valley Road extends westerly to the intersection of Proctor Valley Road and Rolling Ridge Road where it reduces to a 10-inch line that loops through the Salt Creek 1 project.

There is currently one pump station in the 711 Zone, referred to as the Central Area Pump Station, that is located south of Otay lakes Road adjacent to the 624 Zone Patzig Reservoir. This station pumps water from the 624 Zone system into the 711 Zone distribution system and into two existing reservoirs located in the EastLake Greens development. The 711 Zone Pump Station currently has four pumps (one standby), each rated for 4,000 gpm which results in a firm capacity of 12,000 gpm. There is one spare can at this station that allows for the addition of a fifth pump in the future.

There is presently one pump station in the 980 Zone, referred to as the EastLake Pump Station, which lifts water from the 711 Zone to the 980 Zone reservoirs. This pump station is located on the south side of Otay Lakes Road at Lane Avenue. This pump station is equipped with three 4,000 gpm pumps (one standby) for a firm capacity of 8,000 gpm.

There are currently two reservoirs in the 711 Zone. These reservoirs are located at the same site within the EastLake Greens development and have capacities of 2.8 and 2.2 million gallons for a total of 5.0 million gallons. Another 711 Zone Reservoir is in the design stage and is to be located in the Otay Water District Use Area Property north of the Salt Creek Ranch project. This reservoir will have a capacity of 8.0 million gallons and is expected to be completed in the next two to three years.

There are two existing reservoirs in the 980 Zone system. The reservoirs are located on the Otay Water District Use Area Property north of the Salt Creek Ranch project. The reservoirs have a capacity of five million gallons each for a total of 10 million gallons.

##### Recycled Water

The District intends to construct the system of pumps, transmission pipelines and reservoirs which will provide recycled water to the development. Two water recycling

facilities could supply water to the District. In the near term, the amount of recycled water will be limited to the output of the 1.3 mgd Ralph W. Chapman Water Recycling Facility located near the intersection of Singer Lane and Highway 94. This facility can be expanded to an ultimate capacity of 3.84 mgd. Storage of the effluent is provided by two ponds in the District's Recycled Use Area near two existing 980 Zone potable water tanks.

The storage ponds have a high water line of approximately 950 feet and provide the storage and supply for the 950 Zone distribution system. There is an existing 20-inch pipeline that conveys water from the storage ponds to the EastLake Golf Course. The Salt Creek Ranch project constructed a 16-inch line in Proctor Valley Road from this 20-inch line westerly to Mt. Miguel Road. There are existing reclaimed water lines in Proctor Valley Road and Mt. Miguel Road to serve the Salt Creek I project.

### 4.4.7.7 Proposed Facilities

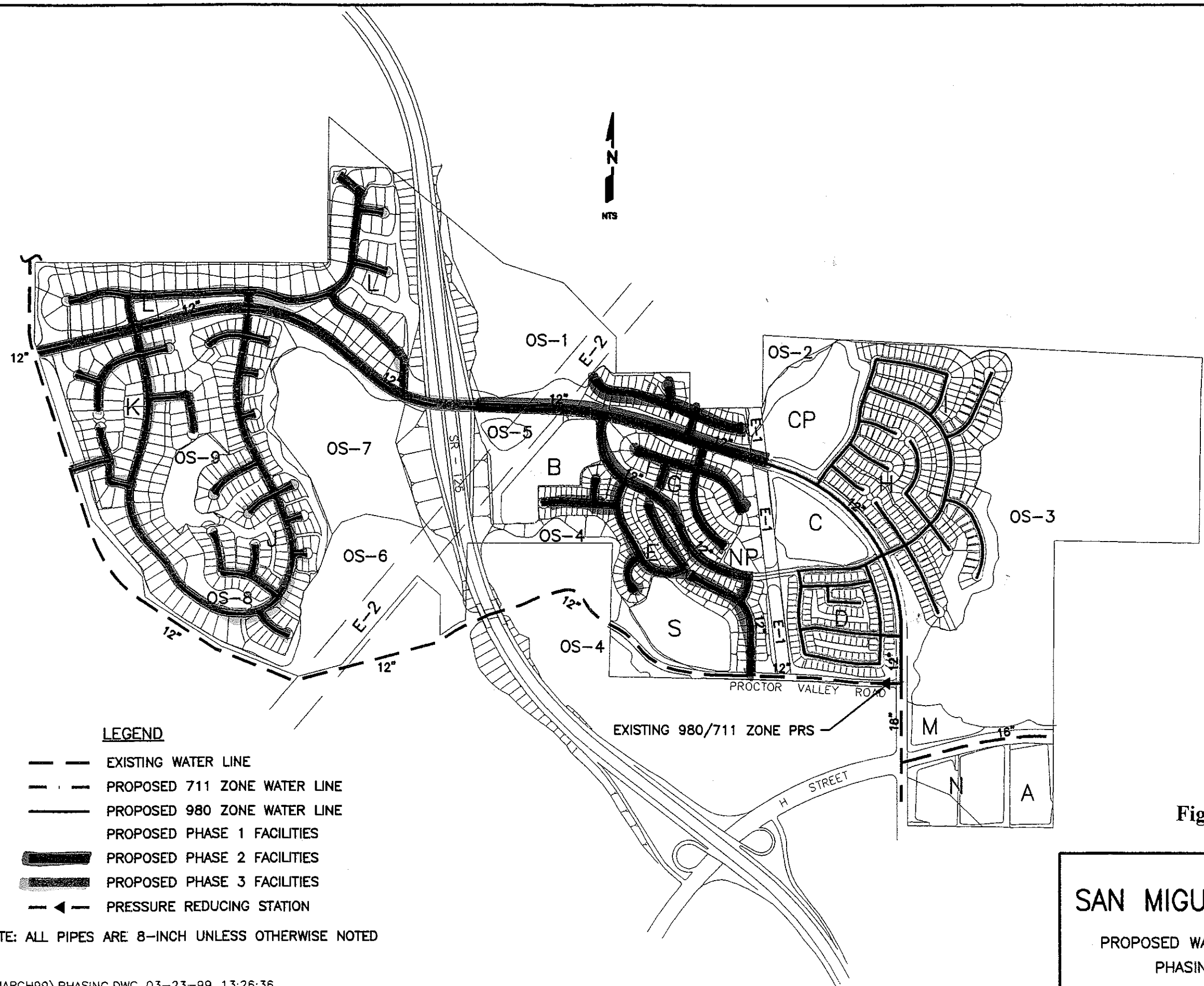
The following descriptions reflect the information contained in the *Overview of Water Service for San Miguel Ranch* dated December 1, 1998. These facilities may be modified following the completion of the SAMP.

#### Potable Water

Because of the range of elevations throughout the project, San Miguel Ranch will be served by expanding the 980 Zone and 711 Zone water systems. There are approximately 38 lots on the western portion of the project that will experience static pressures ranging from 200 to 208 psi. Although this is above the maximum desirable pressure, it is recommended to serve these lots entirely from the 711 Zone as opposed to creating a lower zone with the addition of a pressure reducing station.

#### 980 Zone

The eastern portion of the San Miguel Ranch project can receive water service by expanding the existing 980 Zone facilities in the vicinity of the project. Planning Areas A, M, and N can be served by making connections to the 16-inch water line in Proctor Valley Road that is being constructed as part of the Rolling Hills Ranch project. The remainder of the proposed development within the 980 Zone can be served by constructing a 12-inch water line in future Mt. Miguel Road with 8-inch lines branching off to the service areas. The proposed 12-inch line in future Mt. Miguel Road will terminate at the proposed 980/711 Zone pressure reducing station near Planning Area F.



**LEGEND**

- EXISTING WATER LINE
- - - PROPOSED 711 ZONE WATER LINE
- PROPOSED 980 ZONE WATER LINE
- PROPOSED PHASE 1 FACILITIES
- PROPOSED PHASE 2 FACILITIES
- ▨ PROPOSED PHASE 3 FACILITIES
- ◁ — PRESSURE REDUCING STATION

NOTE: ALL PIPES ARE 8-INCH UNLESS OTHERWISE NOTED

Figure 7

**SAN MIGUEL RANCH**

PROPOSED WATER FACILITIES  
PHASING PLAN

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### 711 Zone

Service to proposed development within the 711 Zone portion of the project can be served by connecting to the existing 12-inch piping in Proctor Valley Road and constructing a new pressure reducing station in future Mt. Miguel Road. Figure 7 shows the location of the recommended 12-inch line. A 12-inch line is also proposed to be located in future Mt. Miguel Road from the proposed pressure reducing station westerly to Planning Area L. All other piping within this zone is adequate as 8-inch.

### Recycled Water

The potential use areas for recycled water on the San Miguel Ranch project include open space, parks, parkway landscaping, and the common areas of the school and commercial sites. Service to irrigated areas above elevation 500 feet can be served by extending the existing 950 Zone recycled water system located at the corner of the project in Proctor Valley Road and Mt. Miguel Road. The potential recycled water use areas have not yet been clearly identified, but it is expected that an 8-inch line will be constructed in Mt. Miguel Road with 6-inch lines to the use areas. To serve irrigated areas below 500 feet in elevation will require construction of a pressure reducing station off the 950 Zone system. At the time when irrigated open space areas have been more clearly identified, the size and location of recommended recycled water facilities will be provided.

#### **4.4.7.8 Financing Water Facilities**

The financing and construction of potable water facilities is provided by two methods:

##### ***Capacity Fees :***

Otay Water District's Capital Improvement Program (CIP) wherein the District facilitates design and construction of facilities and collects an appropriate share of the cost from developers through collection of capacity fees from water meter purchases. Capital Improvement Projects typically include supply sources, pumping facilities, operational storage, terminal storage, and transmission mains.

The Otay Water District may use bond debt financing from Improvement District 27 to assist in the financing of the District's CIP program.

CIP projects are paid for by capacity fees collected on the sale of water meters after building permit issuance.

San Miguel Ranch is currently within the boundaries of Improvement District 27. The project will be required to annex into Improvement District 22.



***Exaction :***

Wherein the developer designs and constructs facilities which serve his development only. When complete, the facilities are dedicated to the District. The developer is required to finance and construct water and recycled water facilities and dedicate these facilities to the Otay Water District.

Potable Water Improvement Costs

The total capital cost for potable water facilities will be determined at the time the system is designed and the SAMP is prepared. In accordance with District Policy No. 26, the District may provide reimbursement for construction and design costs associated with development of these improvements.

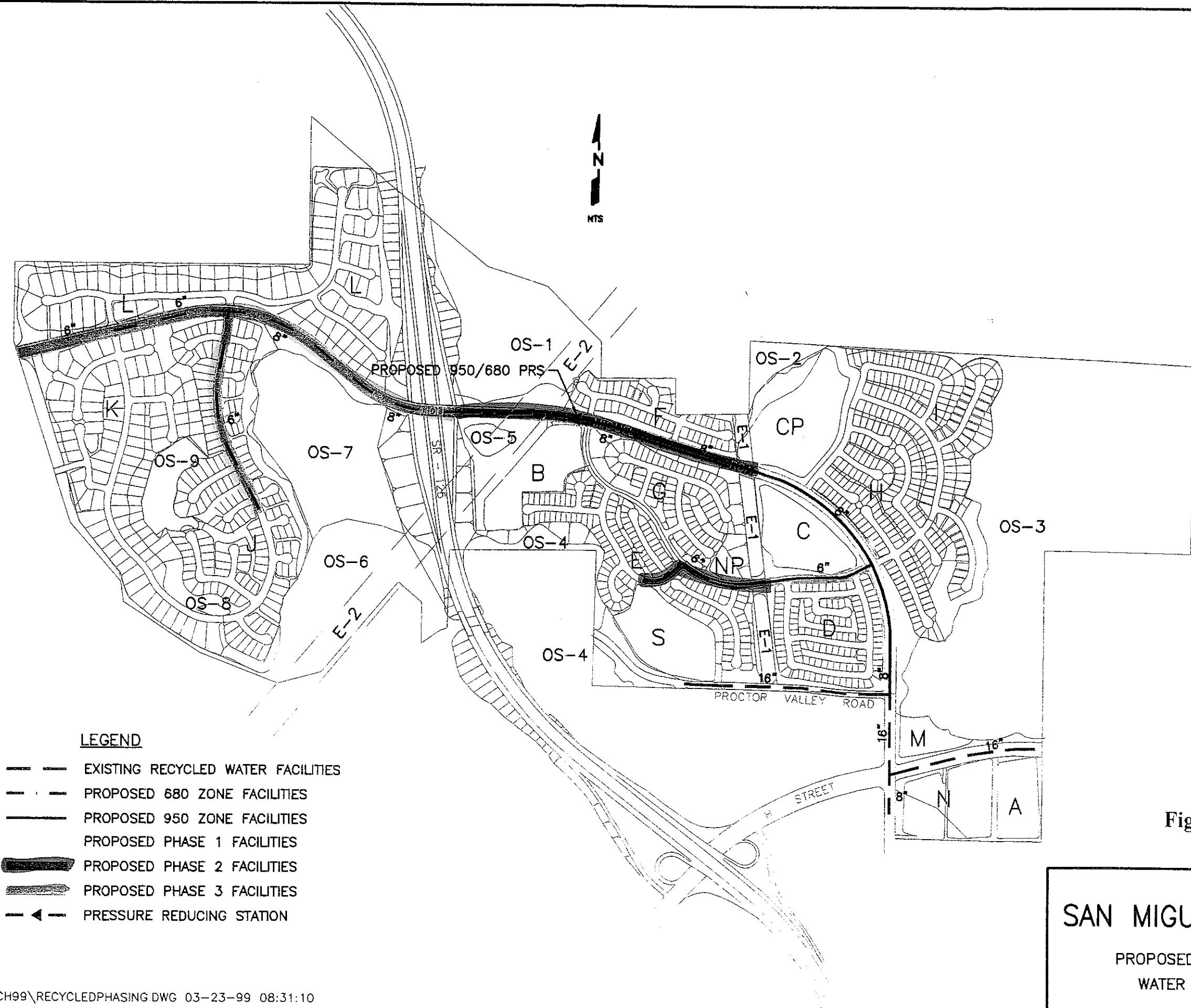
Reclaimed Water Improvement Costs

The total capital cost for recycled water facilities will be determined at the time the system is designed and the SAMP is prepared. The District may provide reimbursement for construction and design costs associated with development of these improvements.

**4.4.7.9 Threshold Compliance and Recommendations**

The *Otay Water District Water Resource Master Plan* and the *Overview of Water Service* identify water facilities to be constructed to provide the appropriate level of water service to meet the criteria established within the plans. The Otay Water District agrees in concept with the *Overview*, however, a completed Subarea Master Plan (SAMP) is required for approval by the District prior to the approval of a tentative map for the project. The potable and recycled water systems will be designed at that time and the costs will be identified by phase of development. The applicant shall be responsible for funding the required system improvements.

The developer shall request and deliver to the City a service availability letter from the Otay Water District prior to each final map.



**LEGEND**

- — — EXISTING RECYCLED WATER FACILITIES
- . - . - PROPOSED 680 ZONE FACILITIES
- — — PROPOSED 950 ZONE FACILITIES
- — — PROPOSED PHASE 1 FACILITIES
- █ PROPOSED PHASE 2 FACILITIES
- ▨ PROPOSED PHASE 3 FACILITIES
- ◀ — PRESSURE REDUCING STATION

Figure 8

**SAN MIGUEL RANCH**  
 PROPOSED RECYCLED  
 WATER PHASING

**4.4.8 SEWER**

## 4.4.8 SEWER

### 4.4.8.1 Threshold Standard

1. Sewage flows and volumes shall not exceed City Engineering Standards.
2. The City shall annually provide the San Diego Metropolitan Sewer Authority with a 12-18 month development forecast and request confirmation that the projection is within the City's purchased capacity rights and an evaluation of their ability to accommodate the forecast and continuing growth. As an alternative, the City Engineering Department staff shall gather the necessary data. The information provided to the GMOC shall include the following:
  - A. Amount of current capacity now used or committed.
  - B. Ability of affected facilities to absorb forecast growth.
  - C. Evaluation of funding and site availability for projected new facilities.
  - D. Other relevant information.

### 4.4.8.2 Service Analysis

The City of Chula Vista currently purchases capacity for wastewater treatment through the City of San Diego. Chula Vista oversees the construction, maintenance and the operation of the sewer trunk line system. The City Engineer is responsible for reviewing proposed developments and ensuring that the necessary sewer facilities are provided with each development project.

The Sewer Threshold Standard was developed to maintain healthful, sanitary sewer collection and disposal systems for the City of Chula Vista. Individual projects are required to provide necessary improvements consistent with the City of Chula Vista Wastewater Master Plan dated July 1989 and shall comply with all city engineering standards.

Information regarding the existing and recommended sewer facilities is presented in the *Overview of Sewer Service for San Miguel Ranch* prepared by Wilson Engineering dated December 2, 1998.

### 4.4.8.3 Project Processing Requirements

#### Sectional Planning Area Plan/Public Facilities Finance Plans

1. Identify phased demands for all sewer trunk lines in conformance with the street improvements and in coordination with the construction of water facilities.
2. Identify location of facilities for onsite and offsite improvements, including reclaimed water facilities in conformance with the *Overview of Sewer Service for San Miguel Ranch* prepared by Wilson Engineering dated December 2, 1998.
3. Provide cost estimates for all facilities and proposed financing responsibilities.
4. Identify financing methods.

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#### 4.4.8.4 Existing Conditions

Sewer service for San Miguel Ranch will be provided by the City of Chula Vista. San Miguel Ranch is within the Proctor Valley Drainage Basin. Existing development in the vicinity of San Miguel Ranch is currently served by a gravity sewer line in Proctor Valley Road. This line generally follows Proctor Valley Road from the Salt Creek I project to Bonita Meadows Lane where it connects to a county of San Diego 15-inch line as shown in Figure 9.

The 15-inch County line, referred to as the Frisbee Trunk Sewer, conveys sewage westerly to the Spring Valley Outfall. The Frisbee Trunk Sewer is a 15-inch gravity line that collects flow from the Proctor Valley Trunk Sewer and from an 8-inch line in San Miguel Road. The Frisbee Trunk Sewer conveys sewage westerly to the Spring Valley Outfall. A capacity agreement does not currently exist between the City of Chula Vista and the County of San Diego for sewage flows through the Frisbee Trunk Sewer.

Sewer flows generated by San Miguel Ranch will feed into the gravity sewer line in Proctor Valley Road at various locations. The sewer line consists of approximately 4,000 feet of 10-inch pipe, 1,500 feet of 12-inch pipe, and 3,900 feet of 15-inch pipe. This sewer line was constructed during development of the Salt Creek I project and was oversized to serve future developments in the basin.

#### 4.4.8.5 Adequacy Analysis

The wastewater master plan evaluates sewer facilities from two aspects. The current and future adequacy of trunk sewers and the future wastewater treatment facilities.

##### Wastewater Treatment

Current Chula Vista average daily wastewater flow is approximately 12.59 million gallons per day (mgd). The City's allocation is 19.84 mgd resulting in a capacity surplus of 7.25 mgd.

For design purposes, a factor of 280 gpd from the City's *Subdivision Manual* is used. The sewage generation factors used in this report are given below.

1.	Single Family Residential	280 gpd/unit
2.	Multi-Family Residential	210 gpd/unit
3.	Commercial	2,500 gpd/acre
4.	Industrial	2,500 gpd/acre
5.	Community Purpose Facilities	2,500 gpd/acre
6.	Elementary School	9,000 gpd/site
7.	Parks	500 gpd/acre

**Sewer**

The Development Phasing Forecast Summary, as shown on Table 4 lists 13,501 residential dwelling units, 161.4 acres of industrial, and 53.2 acres of commercial in various categories of entitlement through the year 2005. Applying the per day wastewater factors for each land use generates a total of 4,316,780 gallons per day of wastewater associated with the forecasted development category. This amount associated with forecasted development reduces the capacity surplus from 7.25 to 2.933 mgd (7,250,000 - 4,316,780).

**Table 47  
Sewer Capacity Used By Forecasted Development (see Table 4)**

Land Use Type	2005 Forecast	Generation Factor	Gallons per Day
Residential	13,501 DU	280 gpd/unit	3,780,280
Commercial	53.2 AC	2,500 gpd/acre	133,000
Industrial	161.4 AC	2,500 gpd/acre	403,500
<b>TOTAL USED BY FORECASTED DEVELOPMENT</b>			<b>4,316,780</b>
<b>TOTAL REMAINING CAPACITY</b>			<b>2,933,220</b>

After reducing the capacity surplus (7.25 mgd) by the total associated with forecasted development (4,316,780 gpd), the remaining capacity of 2,933,220 gpd is further reduced to 2,485,230 gpd by the flows from both the San Miguel Ranch and the Vista Mother Miguel subdivision as shown in Table 47A.

**Table 47A  
Sewer Capacity Used By San Miguel Ranch and Vista Mother Miguel**

Land Use Type	DU's or Acres	Generation Factor	Gallons per Day
<b>Remaining Sewer Capacity from Table 47</b>			<b>2,933,220</b>
<b>San Miguel Ranch</b>			
SFR-Detached	1,063DU	280 gpd/du	297,640
MFR	331DU	210 gpd/du	69,510
CPF Site	4.6 acres	2,500 gpd/acre	11,500
Elementary School	13.7 acres	9,000 gpd/site	9,000
Parks (2)	25.1 acres	500 gpd/acre	12,550
Commercial	14.3 acres	2,500 gpd/acre	35,750
<b>Total SMR</b>			<b>435,950</b>
<b>Vista Mother Miguel</b>			
SFR-Detached	43	280 gpd/du	12,040
<b>Total VMM</b>			<b>12,040</b>
<b>Available Sewer Capacity after SMR and VMM</b>			<b>2,485,230</b>

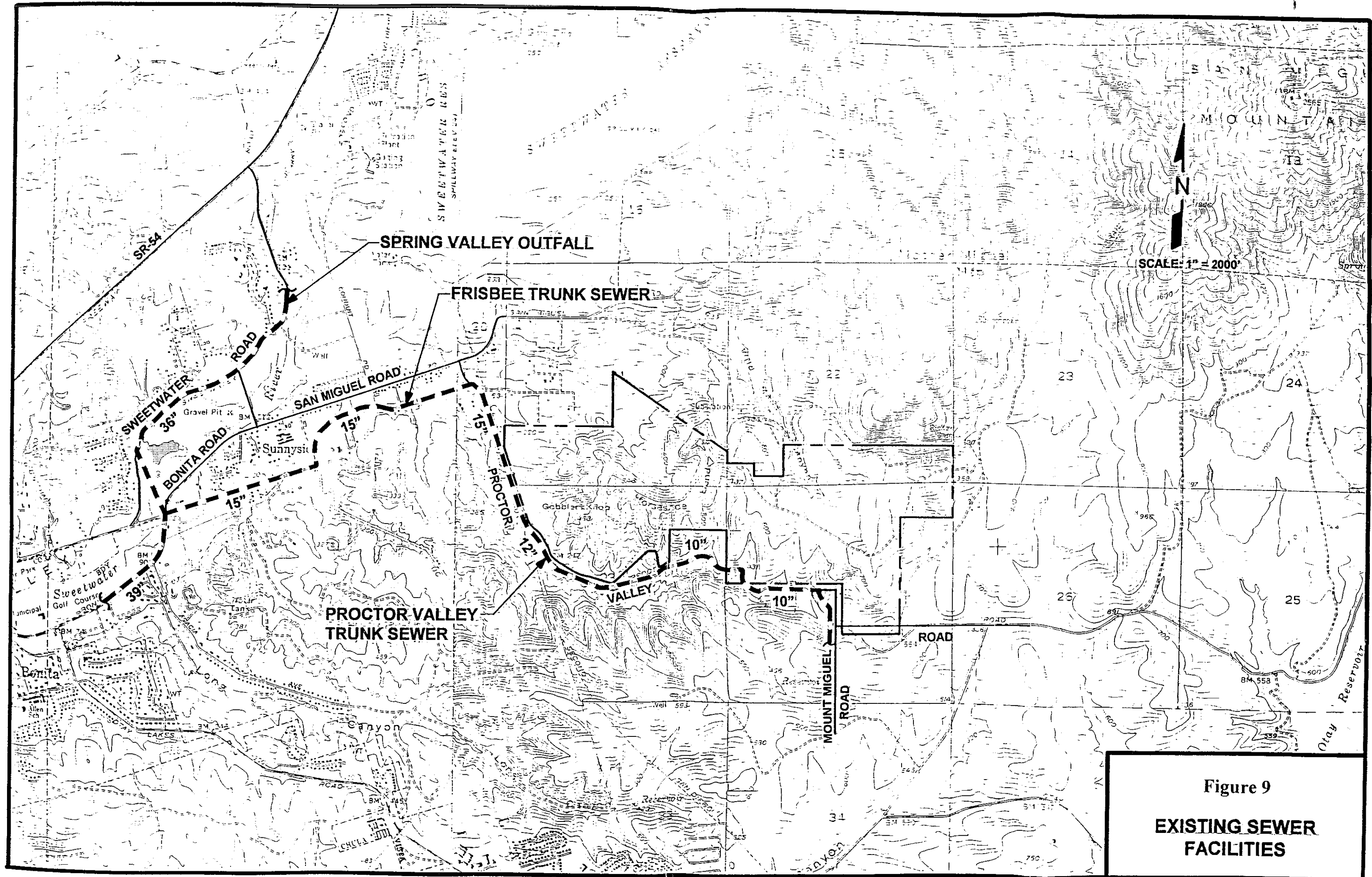
The remaining capacity after the inclusion of San Miguel Ranch and Vista Mother Miguel can accommodate approximately 8,875 DU's at 280 gpd/DU (2,485,230/280).

Until recently, the Federal Clean Water Act required all wastewater dischargers to upgrade their sewerage system facilities to the secondary treatment level. However, the U.S. Environmental Protection Agency (EPA) has tentatively decided to grant a variance from secondary treatment requirements to the City of San Diego for discharge to waters of the Pacific Ocean through the Point Loma Ocean Outfall Extension. The outfall discharges beyond the 3-mile State waters limit to federal waters. The EPA and the State of California jointly issue and administer discharges that are granted variances from secondary treatment requirements.

To assure compliance with the requirements of the Ocean Pollution Reduction Act, the City of San Diego has initiated a program of phased Metro System improvements. The following table identifies the City's proposed schedule for these improvements.

<b>Improvement Phase</b>	<b>Improvement Description</b>	<b>Proposed Schedule</b>
Phase 1	Increased rated treatment capacity at Point Loma Treatment Plant	1996
Phase 1	Digester rehabilitation at treatment plant	1997
Phase 2	Complete construction of North City Water Reclamation Plant and the North City Regional reclaimed water conveyance system, and initiate water reclamation operations.	1997
Phase 3	Complete construction of Northern Sludge Processing Facility and initiate operation of regional solids handling facilities	Before end of 5-year NPDES permit
Phase 3	Initiate secondary treatment for additional flows at reclamation plant and discharge treated water at Point Loma.	Before end of 5-year NPDES permit

The City of Chula Vista authorized a study of wastewater treatment and disposal alternatives as it affects Chula Vista. As a result of this study, Chula Vista will determine whether the Clean Water Program's alternative, or another option, is in Chula Vista's best interest for providing the required treatment upgrade and/or additional capacity required for the total build-out Residential Dwelling Units plus Industrial and Commercial acres.



**Figure 9**  
**EXISTING SEWER**  
**FACILITIES**



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### **Trunk Sewers**

The design capacity is a standard for peak flows based on the sewer line's size. The design capacity flow rate is low compared to actual sewer pipe capacities. But evaluating the design capacity, as opposed to the actual flow capacity, establishes an early warning system which will identify where future improvements may be necessary.

The construction of new sewer trunk lines must be phased with the construction of streets. The wastewater treatment requirements and sewer trunk line system are currently meeting the threshold standard.

## **4.4.8.6 Recommended Sewerage Facilities**

### **San Miguel Ranch Onsite Improvements**

Based on the sewage generation factors presented herein and the proposed development plan for the San Miguel Ranch project, 8-inch gravity sewers are adequate to serve the project with connections to the Proctor Valley Trunk Sewer at several locations as shown on Figure 10. A small onsite sewer lift station will be required to provide sewer service to approximately 40 residential lots on the northwest portion of the project. A feasibility study for the proposed lift station will be required in accordance with Council Policy 570-03 adopted May 17, 1994 by Resolution No. 17491. The feasibility study must be completed prior to approval of the first Tentative Map.

In brief, Council Policy 570-03 established guidelines and procedures for the approval and construction of sewer pump stations and provides for funding the maintenance and operational costs associated with such stations when they are used. Overall, sewer pump stations are to be discouraged and before approving a Tentative Subdivision Map for a project dependent upon the construction of a pump station the following actions must be taken:

1. The developer shall prepare a study analyzing the feasibility of constructing a gravity sewer line versus installing a sewage pump station.
2. The study shall include the cost of maintaining and operating the pump station.

The Director of Public Works shall review and consider the study for approval. The applicant may appeal the Director's decision to the City Council. When a sewer pump station has been approved, constructed, and accepted by the City, the developer shall deposit the amount of the O&M cost estimate for the pump station for a period of 20 years based on an estimate by the City.

### Proctor Valley Trunk Sewer

The Proctor Valley Trunk Sewer varies in diameter from 10-inches to 15-inches. Existing flows in this sewer line are from the Salt Creek I project and the Salt Creek Ranch project. While the Salt Creek Ranch project is currently being developed, the total build-out flows from this development were assumed to be existing. A reach-by-reach analysis was performed to verify that adequate capacity exists to serve the proposed San Miguel Ranch project. Based on depth to diameter ratios, the existing Proctor Valley Trunk sewer should not require any upgrades.

The developer of the Salt Creek I project funded the construction of the Proctor Valley Trunk Sewer to serve their project and future development in the basin. This developer is currently in the process of preparing a reimbursement fee study to establish a mechanism for the City to collect monies from future developments that utilize the Proctor Valley Trunk Sewer. The San Miguel Ranch project and the Vista Mother Miguel subdivision will each contribute their fair share of the costs.

### Frisbee Trunk Sewer

All sewer studies for the San Miguel Ranch project and the Vista Mother Miguel subdivision shall be reviewed by the County of San Diego since sewage flows for the projects will be conveyed through the Frisbee Trunk Sewer. Previous sewer studies performed by Wilson Engineering (January 1991) and Rick Engineering (October 1996) concluded that the Frisbee Trunk Sewer has adequate capacity to serve ultimate future development from the Proctor Valley Basin. However, due to a "sag" in the sewer line, the line's flow characteristics may be altered which could limit the amount of available capacity for new development. Therefore, the line needs to be repaired prior to receiving any additional discharges.

The City of Chula Vista and County of San Diego do not currently have a capacity agreement for flows through the Frisbee Trunk Sewer and the City has indicated that such an agreement is needed.

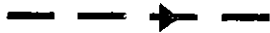







Both the San Miguel Ranch project and the Vista Mother Miguel subdivision will be required to pay all applicable fees for the use of the County of San Diego's Frisbee Trunk sewer and the Spring Valley Interceptor.

#### **4.4.8.7 Financing Sewerage Facilities**

The applicant shall:

1. Underwrite the cost of all studies and reports required to support the addition of sewer flows to existing lines, including the study required by Council Policy 570-03.
2. Assume the capital cost of all sewer lines, pump stations, and connections identified herein.

# LEGEND

-  EXISTING SEWER
-  PROPOSED 8" GRAVITY SEWER
-  PROPOSED 4" FORCE MAIN
-  SEWER LIFT STATION
-  TYPICAL PLANNING AREA
-  PROPOSED PHASE 1 FACILITIES
-  PROPOSED PHASE 2 FACILITIES
-  PROPOSED PHASE 3 FACILITIES

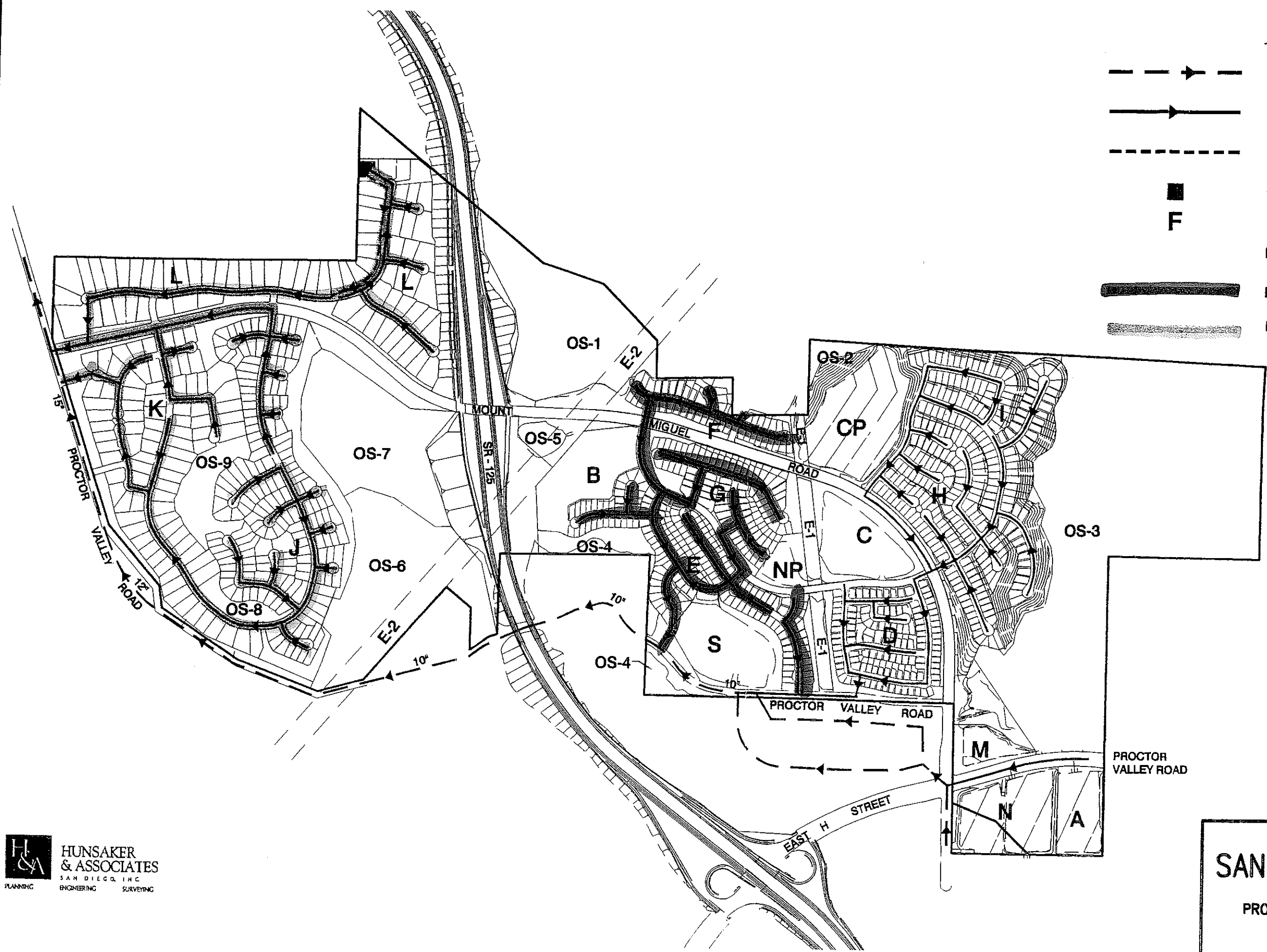


Figure 10

**SAN MIGUEL RANCH**  
 PROPOSED SEWER FACILITIES  
 PHASING PLAN

- 
3. Pay all current sewer fees required of the City of Chula Vista and the County of San Diego.

#### **4.4.8.8 Threshold Compliance and Recommendations**

Facilities to accommodate sewer flows have been identified. The construction of new sewer lines must be phased on or before the construction of streets. As such, the facilities identified in this plan shall be required of the applicant as constructed facilities.

The on-site sewer lift station proposed by the applicant to serve approximately 40 residential lots will require a feasibility study in accordance with Council Policy 570-03. The study must be completed and approved prior to approval of the first Tentative Map.

**4.4.9 DRAINAGE**

## **4.4.9 DRAINAGE**

### **4.4.9.1 Threshold Standard**

1. Storm water flows and volumes shall not exceed City Engineering Standards.
2. The GMOC shall annually review the performance of the City's storm drain system to determine its ability to meet the City's goals and objectives.

### **4.4.9.2 Service Analysis**

The City of Chula Vista, through its Public Works Department, is responsible for ensuring that safe and efficient storm water drainage systems are provided concurrent with development in order to protect the residents and property within the city. City staff shall review individual projects to ensure that improvements are provided which are consistent with the drainage master plan(s) and that the project complies with all City engineering drainage standards.

Drainage facilities are planned for in the *City of Chula Vista Public Facilities Plan Flood Control Summary Report*, dated March 1989 (Phase II).

San Miguel Ranch drainage improvements are identified in the *Preliminary Hydrology Study for San Miguel Ranch* prepared by Hunsaker & Associates revised February 16, 1999, and in the *Detention Basin Analysis for San Miguel Ranch* also by Hunsaker & Associates dated February 16, 1999.

### **4.4.9.3 Project Processing Requirements**

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Identify phased demands.
2. Identify locations of facilities for onsite and offsite improvements.
3. Provide cost estimates.
4. Identify financing methods.

### **4.4.9.4 Existing Conditions**

The *City of Chula Vista Public Facilities Plan, Flood Control Summary Report*, March, 1989, shows fifteen major drainage basins in Chula Vista. These drainage basin boundaries were determined by existing topography, drainage conditions and land uses. Four of these are essentially developed and not expected to have significant changes in runoff. Eleven drainage basins are east of Interstate 805 with one of the basins, Long

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Canyon, is mostly developed to the predicted densities in Scenario 4 of the general plan. Only the remaining ten basins will experience major development and the subsequent changes in drainage conditions.

The City's Drainage Master Plan analyzed current and future requirements for drainage facilities. The report details three alternative solutions for drainage in each basin. Because drainage facilities are directly related to the type and location of future development, it is not possible to determine which specific improvements will be required until the development project is presented and reviewed by staff.

#### **4.4.9.5 Proposed Facilities**

The entire San Miguel Ranch project area will drain to the Proctor Valley Road tributary of the Sweetwater River Basin. Runoff from the proposed development is proposed to be detained at three locations so that flows do not exceed those in the pre-developed condition for a 100-year, 6 hour storm event.

The northern portion of the of the San Miguel Ranch will be dedicated as open space and remain in a natural condition. Existing drainage patterns will not be disrupted and no drainage improvements are proposed.

The southern most portion of the proposed development will consist of residential lots, community parks, an elementary school site, multi-family sites, a commercial site, and open space. Proposed drainage facilities will include drainage inlets connected by underground drainage pipe. The pipe system will outlet into existing canyons or existing drainage facilities. The Salt Creek I residential project, located southeast of San Miguel Ranch, contains an existing underground system within Proctor Valley Road. A part of the proposed school and small lot single family (Area D) site will be drained by the existing system, as it is in its existing condition. The remainder of the drainage system will outlet into four existing canyons. Rip-rap pads will be used to dissipate the energy of flows at the outlets.

Beginning at the western most end of the project, drainage for an area encompassing planning areas J, K, and the westerly portion of L, will drain and discharge to a point near the intersection of future Mt. Miguel Road and Proctor Valley Road. Storm runoff will enter inlets located within the proposed public street to be carried in pipes and ultimately discharged into Proposed Detention Basin No. 1 before exiting and entering the natural drainage channel offsite.

The easterly and northerly portion of area L will drain north in pipe discharging into Proposed Detention Basin No. 2 located just west of the SR-125 alignment.

## Drainage

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The area east of the SR-125 alignment has three discharge points. The largest encompasses planning areas B, C, D, E, F, G, portions of H, and I and the school site. The storm water from these areas will be picked up in inlets located in the public street and be carried in pipes to a point adjacent to the school site and Proctor Valley Road.

The community park and the westerly portions of Planning Areas H and I will drain and discharge to a point north of the community park.

Planning Areas M, N, and A will discharge into existing storm drain pipes in Mount Miguel Road and East H Street. This existing system was constructed as a part of Salt Creek I and Salt Creek Ranch.

The Proposed Detention Basin No. 3 will intercept and hold flows coming from Open Space Area No. 3 (OS-3) located in the easterly portion of the project. The flows from this basin will be conveyed to the existing 60" pipe in Proctor Valley Road where they will discharge in Open Space Area No. 4 (OS-4).

The locations of the proposed detention basins are shown on Figure 11. Preliminary backbone and in tract storm drain pipe sizes are also shown. The following table identifies the detention basins:

<b>Detention Basin No.</b>	<b>Outlet</b>	<b>Peak Inflow (c.f.s)</b>	<b>Peak Outflow (c.f.s)</b>	<b>Max Stage (6-hr)</b>	<b>Max Stage (24-hr)</b>
No. 3 - Proctor Valley Road	60" Standpipe	250	148	560.5	560.8
No. 1 - Mt. Miguel Road	36" Standpipe	112	42	218.8	220.1
No. 2 - Northwesterly	54" Culvert	290	237	249.7	246.6

Finally, there is a need to finalize and coordinate with Caltrans regarding a regional detention facility when SR-125 is constructed.

The detention basins will be constructed during the mass grading operation for each phase of the project and the pipe systems will be installed at the same time or shortly thereafter prior to the streets and other utilities.

### Urban Runoff Facilities

The Upper and Lower Otay Lakes are operated by the City of San Diego as domestic water reservoirs. These reservoirs must be protected from urban runoff to maintain water



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quality for domestic use. The San Miguel Ranch project does not drain into the watersheds of these reservoirs. Salt Creek is a USGS blueline stream, which makes it a water resource of the United States under the County Water Authority. All development in excess of five acres must incorporate urban runoff planning, which will be detailed at the Tentative Tract Map level.

In conformance with the National Pollution Discharge Elimination system (NPDES) General Permit No. CAS000002 and as a condition of the California State Water Resources Control Board (SWRCB) Order No. 92-08-DWQ, San Miguel Ranch will have a Storm Water Pollution Prevention Plan (SWPPP) prepared prior to the start of construction. This plan will identify pollutant sources associated with construction sites and will identify construction as well as implementation of storm water management practices to abate pollutants in storm water discharges from the construction site.

Build-out or post-construction water quality will be maintained by first providing rock rip-rap pads at all canyon outlets to dissipate the energy of the outlet flows to minimize erosion. The second water quality feature will be to utilize the project detention basins not only for detention to offset (detain) post-development peak discharges, but also as desiltation basins where silt can accumulate and be removed. In addition, the basins will be designed to provide extended detention for low flows, which will further enhance removal of pollutants.

#### **4.4.9.6 Financing Drainage Facilities**

##### **Onsite Facilities**

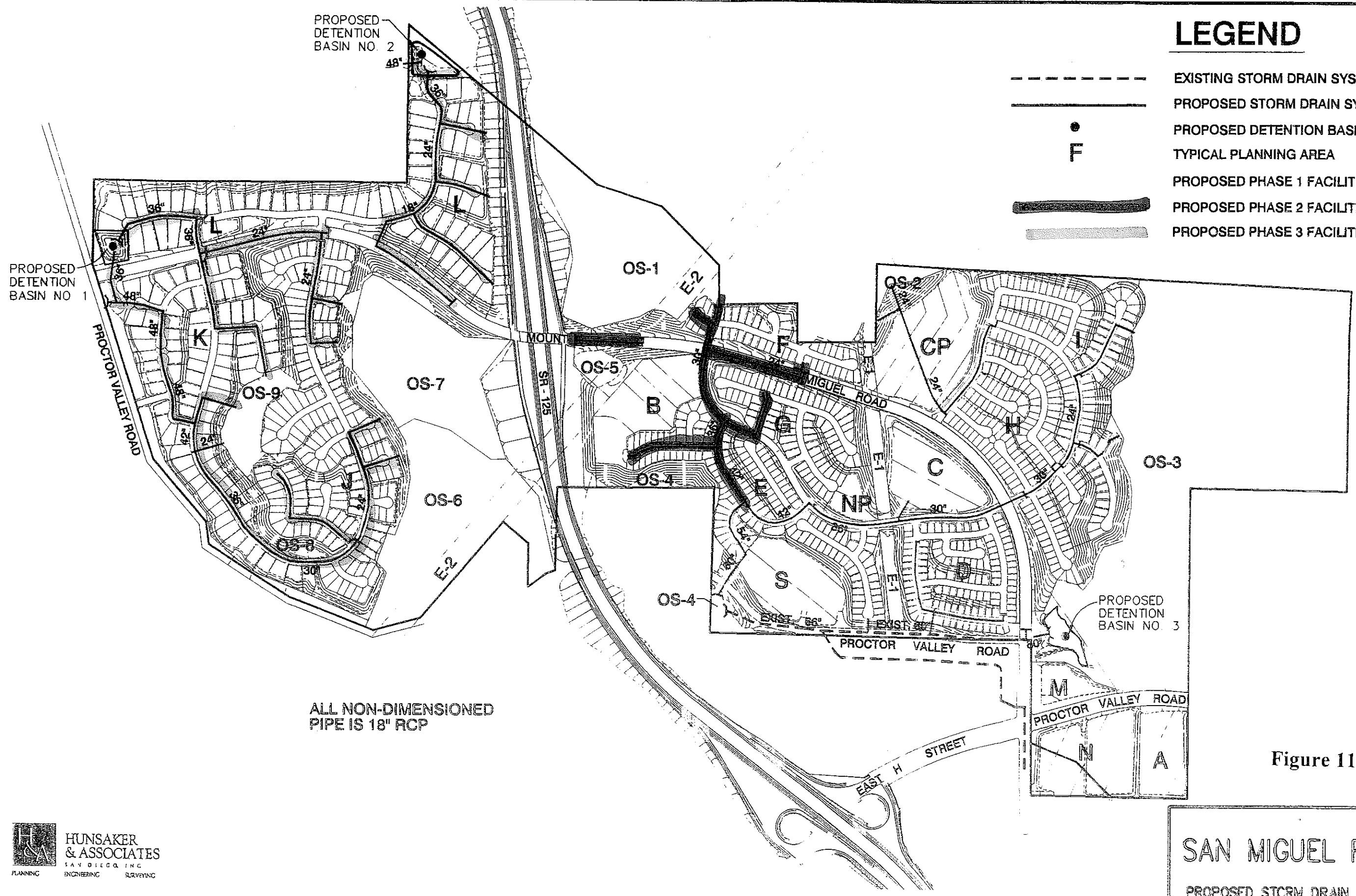
City policy requires that all master planned developments provide for the conveyance of storm waters throughout the project to City engineering standards. As such, San Miguel Ranch will be required to construct those facilities identified in Section 4.4.9.5 through the subdivision exaction process.

In newly developing areas east of I-805, it is the City's policy that development projects assume the burden of funding all maintenance activities associated with drainage channels and detention basins. As such, the City will enter into an agreement with the San Miguel Ranch applicant whereby maintenance of the channels and detention basins will be assured by one of the following funding methods:

1. A homeowner's association (HOA) that would raise funds through fees paid by each property owner; or
2. A Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes.

# LEGEND

- EXISTING STORM DRAIN SYSTEM
- PROPOSED STORM DRAIN SYSTEM
- PROPOSED DETENTION BASIN
- F TYPICAL PLANNING AREA
- PROPOSED PHASE 1 FACILITIES
- PROPOSED PHASE 2 FACILITIES
- PROPOSED PHASE 3 FACILITIES



ALL NON-DIMENSIONED  
PIPE IS 18" RCP

Figure 11

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### **Offsite Facilities**

There are no offsite drainage facilities required of San Miguel Ranch.

#### **4.4.9.7 Threshold Compliance and Recommendations**

San Miguel Ranch shall be responsible for the conveyance of storm water flows in accordance with City Engineering Standards. The City Engineering Division shall review all plans to ensure compliance with such standards.

Any areas currently within the County of San Diego and/or to remain within the County shall be designed using the County of San Diego Hydrology Analysis Design and Procedure Manual and include a 100-year hydrology analysis.

San Miguel Ranch shall incorporate urban runoff planning in the Tentative Tract Map.

The City will enter into an agreement with the San Miguel Ranch applicant whereby maintenance of the channels and detention basins will be assured by one of the following funding methods:

1. A homeowner's association (HOA) that would raise funds through fees paid by each property owner; or
2. A Community Facilities District (CFD) established over the entire project to raise funds through the creation of a special tax for drainage maintenance purposes

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**4.4.10 AIR QUALITY**

## **4.4.10 AIR QUALITY**

### **4.4.10.1 Threshold Standard**

The City shall annually provide the San Diego Air Pollution Control District (APCD) with a 12-18 month development forecast and request an evaluation of its impact on current and future air quality management programs, along with recent air quality data. The growth forecast and APCD response letters shall be provided to the GMOC for inclusion in its annual review.

### **4.4.10.2 Service Analysis**

#### **Air Quality Improvement Plan**

An Air Quality Improvement Plan is required for all major development projects (50 dwelling units or greater, or commercial and industrial projects with 50 EDU's of water demand or greater). This plan is required at the Sectional Planning Area (SPA) Plan level, or equivalent for projects which are not processed through a Planned Community Zone.

The Air Pollution Control District is responsible for the Air Quality Maintenance Program in compliance with the California Clean Air Act. There is no local Master Plan for Air Quality.

The *Air Quality Improvement Plan - San Miguel Ranch SPA* dated October 22, 1998, was prepared by Giroux & Associates. The following goals are identified in the plan:

1. To minimize air quality impacts during and after construction of projects within the plan area.
2. To comply with the air quality standards and policies of the City of Chula Vista and San Diego County APCD
3. To create a framework for the design and implementation of air quality mitigation measures in this development project.
4. To be economically efficient and cost effective.

### **4.4.10.3 Threshold Compliance and Recommendations**

The City continues to provide a development forecast to the APCD in conformance with the threshold standard. A separate Air Quality Improvement Plan is provided as part of the SPA document.

**4.4.11 CIVIC CENTER**

## **4.4.11 CIVIC CENTER**

### **4.4.11.1 Threshold Standard**

There is no adopted threshold standard for this facility. The facility information is being provided in this report to aid the City in establishing operational benchmarks which will determine construction phasing of the Civic Center.

### **4.4.11.2 Service Analysis**

Although the existing Civic Center successfully accommodated city administration offices prior to the mid-1980's population growth, increase in City staff to meet new demands of growth has caused increasing congestion problems. Most staff in the Public Services Building experience space shortages, lack of privacy and storage, and frequent noise distractions. This was reported in a survey which is included in the Civic Center Master Plan dated May 8, 1989. Site Alternative Three "The Suburban Scheme" was selected from the master plan at a City Council conference on June 22, 1989.

### **4.4.11.3 Existing Conditions**

#### **Civic Facilities Inventory**

##### **Existing Facilities**

Civic Center .....	111,940 square feet
Previous County Health Center .....	3,120 square feet
Future Public Works Inspection Division (off-site) .....	1,200 square feet
<b>TOTAL .....</b>	<b>116,260 square feet</b>
Parking Lots .....	333 spaces



<u>Future Facilities Cost</u>	<u>Size</u>	<u>Estimated</u>
1. City Hall	25,765 sf <sup>16</sup>	2,203,300
2. Public Services Facility	40,615 sf <sup>1</sup>	3,023,500
3. New City Hall Annex	28,925 sf <sup>1</sup>	3,023,600
4. Legislative Offices	6,000 sf <sup>1</sup>	1,330,000
5. Subterranean Parking	126 spaces	1,008,000
6. Parking Structure	359 spaces	2,872,000
7. Demolition	5,920 sf	83,600
8. Surface Parking	45,425 sf	227,100
9. Misc. Site Improvements	15,000 sf	180,000
10. Landscaping	55,000 sf	698,500
11. Land Acquisition (459 F Street)	---	---
12. Master Plan	---	65,250
<b>TOTAL (1989 Dollars)</b> .....		<b>\$15,459,300</b>

#### 4.4.11.4 Adequacy Analysis

The Master Plan for the Chula Vista Civic Center shows 126,990 square feet of Civic Center facilities are needed to serve the population in 1988. This identifies an existing space deficiency of 15,050 square feet. Since the writing of the Master Plan, the City has acquired the 3,120 square foot County Health building and a 1,200 square foot Public Works office. They are both listed under Existing Facilities. Because of this increase in square footage, the deficiency is reduced to 10,730 square feet.

The need for the Civic Center can not be easily related to population figures or acres of commercial and industrial land which will be developed in the future. The facilities, according to the master plan, are currently inadequate because of the lack of space. This inadequacy will worsen as employee numbers and their workloads increase in response to demands for services, which are generated by new development.

The City is moving ahead to implement Phase #1 of the Civic Center Master Plan by acquiring additional land to the west of the existing Civic Center for the proposed parking garage.

#### 4.4.11.5 Financing Civic Center Facilities

In January 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City. The

<sup>16</sup> Some of the size figures represent a combination of remodeled existing square footage and newly constructed square footage. The completed civic facilities will total 149,120 square feet with 625 parking spaces.

## Civic Center

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current fee adopted in accordance with Government Code Section 66000 is \$2,150 per equivalent dwelling unit.

The San Miguel Ranch project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current Civic Center fee rate of \$527 per dwelling unit. The San Miguel Ranch obligation at build-out is \$779,591 and the Vista Mother Miguel obligation is \$22,661.

<b>Development Phase</b>	<b>EDU's</b>	<b>Civic Ctr. Fee @ \$527/EDU</b>
1	489.0	\$257,703
2	472.0	248,744
3	320.0	168,640
4	198.3	104,504
<b>Total</b>	<b>1,479.3</b>	<b>\$779,591</b>

<b>Development Phase</b>	<b>EDU's</b>	<b>Civic Center @ \$527/EDU</b>
1	43.0	\$22,661
<b>Total</b>	<b>43.0</b>	<b>\$22,661</b>

### 4.4.11.6 Threshold Compliance and Recommendations

The San Miguel Ranch SPA shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued. The Vista Mother Miguel subdivision shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

At the current fee rate, the San Miguel Ranch obligation at build-out is \$771,159 and for Vista Mother Miguel it is \$22,661.

**4.4.12 CORPORATION YARD**

## **4.4.12 CORPORATION YARD**

### **4.4.12.1 Threshold Standard**

There is no adopted threshold standard for this facility. The facility information is being provided in this report to aid the City in establishing operational benchmarks which will determine construction phasing of the corporation yard.

### **4.4.12.2 Service Analysis**

The corporation yard is currently operating beyond capacity. New development, with its resultant increase in required maintenance services, creates a need for a larger corporation yard. The new yard may be located east of Interstate 805 because of the availability of centrally located large parcels. A City staff memo dated November 11, 1987 states that 15 acres are needed to accommodate 85,010 square feet of office and storage and 228,000 square feet of parking.

### **4.4.12.3 Existing Conditions**

<u>Existing Facilities</u>	<u>Location</u>
Corporation Yard	707 "F" Street

<u>Future Facilities</u>	<u>Cost Estimate</u>
1. Buildings	\$ 4,699,491
2. Outside Storage	1,031,362
3. Parking	543,598
4. Site preparation and grading	4,000,000
5. Site development, utilities, and landscaping	1,181,260
6. Site acquisition	<u>1,995,000</u>
<b>TOTAL (1988 Dollars)</b>	<b>\$ 13,450,711</b>

### **4.4.12.4 Adequacy Analysis**

The growth in population, increase in street miles and the expansion of developed areas in Chula Vista, requires more equipment for maintenance as well as more space for storage and the administration of increased numbers of employees. The need for a larger Corporation Yard can be specifically related to new development and its effect on all of these subjects.

The existing corporation yard located at "F" Street and Woodlawn Avenue no longer accommodates present demands.

#### 4.4.12.5 Financing Corporation Yard Facilities

In January, 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The current fee is \$2,150 per equivalent dwelling unit.

The San Miguel Ranch project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current Corporation Yard fee rate of \$515 per dwelling unit, the San Miguel Ranch obligation at build-out is \$761,840 and the Vista Mother Miguel obligation is \$22,145.

<b>Development Phase</b>	<b>EDU's</b>	<b>Corp. Yard Fee @ \$515/EDU</b>
1	489.0	\$251,835
2	472.0	243,080
3	320.0	164,800
4	198.3	102,125
<b>Total</b>	<b>1,479.3</b>	<b>\$761,840</b>

<b>Development Phase</b>	<b>EDU's</b>	<b>Corp. Yard @ \$515/EDU</b>
1	43.0	\$22,145
<b>Total</b>	<b>43.0</b>	<b>\$22,145</b>

#### 4.4.11.6 Threshold Compliance and Recommendations

The San Miguel Ranch SPA shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued. The Vista Mother Miguel subdivision shall be conditioned to pay Public Facilities Fees at the rate in effect at the time building permits are issued.

At the current fee rate, the San Miguel Ranch obligation at build-out is \$761,840 and for Vista Mother Miguel it is \$22,145.

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**4.4.13 OTHER PUBLIC FACILITIES**

### **4.4.13 OTHER PUBLIC FACILITIES**

#### **4.4.13.1 Threshold Standard**

There is no adopted threshold standard for these facilities which are part of the Public Facilities Development Impact Fee Program and include GIS, Mainframe Computer, Telephone System Upgrade, and Records Management. The information regarding these capital items is being provided in this section of the PFFP to aid the City and the developer in calculating the PFDIF fees to be paid by the San Miguel Ranch project.

#### **4.4.13.2 Service Analysis**

The public facilities identified in Section 3.15.1, above, are described in the report entitled *Development Impact Fee for Public Facilities* dated April 20, 1993, known as document number C093-075.

#### **4.4.13.3 Existing Conditions**

The City continues to collect funds from building permit issuances in the Eastern Territories for deposit to the accounts associated with these facilities.

#### **4.4.13.4 Financing Other Public Facilities**

This information is being provided to aid the City and the developer in calculating the level of funds to be received from the payment of fees associated with this "Other Public Facilities" category.

In January, 1991, the Chula Vista City Council adopted Ordinance No. 2320 establishing a Development Impact Fee to pay for various public facilities within the City of Chula Vista. The facilities are required to support future development within the City and the fee schedule has been adopted in accordance with Government Code Section 66000. The current fee is \$2,150 per equivalent dwelling unit. The component of the fee attributable to "Other Public Facilities" as described above is \$109.00 per EDU excluding \$4.16 per EDU for PFDIF administration at 2%.

The San Miguel Ranch project is within the boundaries of the public facilities DIF program and, therefore, the project will be subject to the payment of the fee at the rate in effect at the time building permits are issued. At the current fee rate, the San Miguel Ranch obligation at build-out is \$161,244 and for Vista Mother Miguel it is \$4,687 as shown on the following tables.



<b>Table 54</b>		
<b>Public Facilities Fees For Other Public Facilities</b>		
<b>Development Phase</b>	<b>EDU's</b>	<b>Other Public Facilities Fee @ \$109/EDU</b>
1	489.0	\$53,301
2	472.0	51,448
3	320.0	34,880
4	198.3	21,615
<b>Total</b>	<b>1,479.3</b>	<b>\$161,244</b>

<b>Table 55</b>		
<b>Vista Mother Miguel</b>		
<b>Public Facilities Fees For Other Public Facilities</b>		
<b>Development Phase</b>	<b>EDU's</b>	<b>Other Public Facilities @ \$109/EDU</b>
I	43.0	\$4,687
<b>Total</b>	<b>43.0</b>	<b>\$4,687</b>

#### 4.4.13.5 Threshold Compliance and Recommendations

Other Public Facilities will be funded through the collection of public facility fees at the rate in effect at the time building permits are issued.

**4.4.14 FISCAL ANALYSIS**

## **4.4.14 FISCAL ANALYSIS**

### **4.4.14.1 Threshold Standard**

1. The GMOC shall be provided with an annual fiscal impact report which provides an evaluation of the impacts of growth on the City, both in terms of operations and capital improvements. This report should evaluate actual growth over the previous 12-month period, as well as projected growth over the next 12-18 month period, and 3-5 year period.
2. The GMOC shall be provided with an annual "economic monitoring report" which provides an analysis of economic development activity and indicators over the next previous 12-month period, as well as projected growth over the next 12-18 month period, and 3-5 year period.

### **4.4.14.2 Facility Master Plan**

There is no existing Master Plan for fiscal issues. However, an economic base study and a long range fiscal impact study was prepared by P&D Technologies as part of the Chula Vista General Plan.

### **4.4.14.3 Project Processing Requirements**

#### **Sectional Planning Area Plan/Public Facilities Finance Plans**

1. Prepare a phased fiscal/economic report dealing with revenue vs expenditures including maintenance and operations.

### **4.4.14.4 Fiscal Analysis of Project**

#### **4.4.14.4.1 Introduction**

This analysis identifies the estimated fiscal impact that the San Miguel Ranch will have on the operation and maintenance budgets of the City of Chula Vista (general fund). Information pertaining to the scope of development was derived from Trimark Pacific – San Miguel Ranch LLC.

In addition, this fiscal also incorporates the 43-lot Vista Mother Miguel subdivision located immediately adjacent to the north boundary of the San Miguel Ranch. Jim Algert (project applicant) provided project details.

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Two basic methodologies were utilized in estimating public agency revenues and expenditures; the case study and per unit/acre multiplier methods. The case study method was used to estimate secured property tax. The case study method is based on specific characteristics of the project from which revenues can be estimated. Appropriate city officials were contacted to identify actual tax rates and fees, also Mr. Dan Beintema of the Chula Vista Fire Department was contacted for costs associated with fire protection. Mr. David Palmer of the Chula Vista library and Mr. Jerry Foncerrada of the Parks Department were also contacted. Mr. David Byers of the Public Works Operations and Mr. Cliff Swanson with the City Engineering Department were contacted regarding public works expenditures. The per unit/acre multiplier method, which represents a more general approach was utilized to estimate unsecured property tax, sales tax, IOI, property transfer tax, utility tax, license fees, fines, other revenues and fees and all expenditures. CIC also utilized input from the fiscal impact prepared for EastLake Trails. The City of Chula Vista's FISCAL YEAR 1998-1999 Budget was utilized to estimate per unit/acre multipliers.

Future revenues and expenditures are presented in current (1998) dollars. Also, revenues and expenditures are depicted annually, reflecting a conservatively projected development absorption schedule. This approach identifies annual project fiscal surpluses and deficits and represents a more realistic approach when compared to assuming instant build-out.

#### **4.4.14.4.2 Project Description**

The San Miguel Ranch is proposed to be annexed into the City of Chula Vista and includes 1,063 single family units, 331 multi family units, 13.9 gross (11.7 net) acres of retail uses, 17.3 gross acres of institutional (school and community facilities), 2,104 acres of open space, 15.6 net acres of publicly maintained park uses and an additional 3.2 acres for a privately maintained park at build-out. Presented in Table 56 is a description of the product types and projected absorption schedule, both provided by the developer. This schedule includes a 6 year (2001 to 2006) development schedule. For the purpose of this analysis, absorption represents new units being sold (or rented) and occupied.

Housing market values were estimated by the developer and ranged from \$140,000 (multi-family) to \$400,000 (single family - large lots). Commercial values were estimated using COMPs (Commercial Property Information Services). An estimated 156,000 square feet of retail uses and market values of \$140 per square foot for the commercial uses were utilized in identifying property taxes and are presented in Table 56.

Vista Mother Miguel is located adjacent to the north boundary of the San Miguel Ranch and proposed to include 43 single-family homes. These homes are expected to be constructed and sold during the second phase of San Miguel Ranch, which is estimated to occur in 2002.

These homes are expected to have average lot sizes of 8,400 square feet. Housing market values were estimated by the developer and expected to be similar to San Miguel Ranch's medium density homes, which are projected at an average of \$265,000 (see Table 56A).

#### **4.4.14.4.3 Project Demographics and Land Uses**

In developing per unit/acre multipliers, CIC utilized demographic and land use information related to the City of Chula Vista as a whole and, more specifically, the subject San Miguel Ranch. Included in Table 57 are population, housing, land-use and infrastructure characteristics. The developer provided the number of housing units and acres by land use for San Miguel Ranch. Hunsaker & Associates (project planner/engineer) provided the number of street miles, lane miles and street widths. The number of traffic signals represents an estimate derived by Hunsaker & Associates. The number of streetlights also represents an estimate and was derived by using the City standard of 350 feet between streetlights.

The number and type of housing units and street miles for Vista Mother Miguel were provided by Jim Algert and Algert Engineering, Inc. (see Table 56A) Similar to San Miguel Ranch, the number of streetlights represents an estimate using City standards

**Table 56**  
**San Miguel Ranch Absorption Schedule and Market Values by Land Use**

<u>Land Use</u>	<u>Per Unit/ Net Acre Value (000's)</u>	<u>Cumulative Developed and Occupied Units/Net Acres</u>						
		<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>TOTAL</u>
<b>SINGLE FAMILY RESIDENTIAL UNITS</b>								
Low (0 to 3 per Acre)	\$400	0	0	90	158	158	158	158
Low to Medium (3 to 6 per Acre)	\$265	150	325	425	550	664	664	664
Medium (6 to 11 per Acre)	\$225	100	225	241	241	241	241	241
<i>TOTAL SINGLE FAMILY UNITS</i>		250	550	756	949	1063	1063	1063
<b>MULTI FAMILY RESIDENTIAL UNITS</b>								
Medium (6 to 11 per acre)	\$160	50	100	160	218	218	218	218
Medium High (11 to 18 per acre)	\$140	0	0	0	50	113	113	113
<i>TOTAL MULTIFAMILY UNITS</i>		50	100	160	268	331	331	331
<b>RETAIL COMMERCIAL NET ACRES</b>	<b>\$1,867</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>

\*Commercial value estimated using COMPS for the area. A rough value of \$140 per square foot and 156,000 square feet were used.  
Source: Trimark Pacific-San Miguel LLC  
CIC Research, Inc.

**Fiscal Analysis**

**Table 56A**  
**Vista Mother Miguel Absorption Schedule and Market Values by Land Use**

<u>Land Use</u>	<u>Per Unit Value (000's)</u>	<u>Cumulative Developed and Occupied Units</u>						<u>TOTAL</u>
		<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	
Single	\$265	0	43	43	43	43	43	43
Family								

*Source Jim Algert  
CIC Research Inc*

**Table 57**  
**San Miguel Fiscal Impact General Assumptions**

<u>Chula Vista</u>		<u>Source</u>
Population	162,047	CA Dept. of Finance
Occupied Housing Units	53,968	CA Dept. of Finance
Persons Per Household	2.98	CA Dept. of Finance
Street Miles	321	CV Public Works
Lane Miles	778	CV Public Works
Traffic Signals	145	CV Engineering
Street Lights	5,940	CV Engineering
Estimates Average HH Income	\$53,464	Nat. Decision Systems
Median Housing Price	\$160,000	DataQuick Info. Serv
Land Uses (Developed Acres)		
Commercial	1,093.46	CV Planning
Industrial	724.62	CV Planning
Residential	6,876.98	CV Planning
Park	339.85	CV Planning
<b>San Miguel Ranch</b>		
Estimated Population	4,154	CIC Research, Inc.
Housing Units	1,394	Trimark Pacific
Commercial Acres (Cross/Net)	13.9/11.7	Trimark Pacific
Open Space Acres	2,104	Trimark Pacific
Public Park Acres (Net/Required)	15.6/12.45	Trimark Pacific
Private Park acres (Net)	3.2	Trimark Pacific
Street Miles	10.7	Hunsaker & Associates
Lane Miles	26.1	Hunsaker & Associates
Traffic Signals	4	Hunsaker & Associates
Street Lights	162	Hunsaker & Associates
Estimated Average HH Income	\$85,000	CIC Research, Inc
Median Housing Price	\$265,000	Trimark Pacific
<b>Vista Mother Miguel</b>		
Estimated Population	128	CIC Research, Inc
Housing Units	43	Algert Engineer
Street Miles	0.2	Algert Engineer
Lane Miles	0.4	Algert Engineer
Street Lights	4	Algert Engineer
Estimated Average HH Income	\$85,000	CIC Research, Inc
Median Housing Price	\$265,000	Algert Engineer

*Source: California Department of Finance 1998  
City of Chula Vista  
Trimark Pacific B San Miguel LLC  
DataQuick Information Services*

#### 4.4.14.4.4 Revenues

Operating revenues for the City of Chula Vista resulting from the development of the proposed San Miguel Ranch and Vista Mother Miguel are estimated in this section. The major revenue sources which are expected to be generated from the subject developments and detailed in this chapter include property tax (secured and unsecured), property transfer tax, sales tax, franchise fees, TOT, utility tax, license revenue, miscellaneous fines, homeowner's property tax relief, motor vehicle license fees, gas tax and charges for various current services. The City of Chula Vista's Budget (FISCAL YEAR 1998/1999) for these revenue items is detailed in Table 58 along with allocation rates. The following section details each of the revenue sources and the methodology employed to estimate revenues from the subject developments. For each identified revenue source, a detailed table reflecting the revenue flow over the project build-out (2001 to 2006) is presented in the Appendixes (Appendix-A is San Miguel Ranch and Appendix-B is Vista Mother Miguel) of this report. All dollar figures are presented in 1998 dollars (no inflation rates were used).

**Table 58  
Fiscal Impact Revenue Generation Assumptions**

<u>Revenues</u>	<u>City of Chula Vista Fiscal Year 98/99 Revenues</u>	<u>Allocation Assumption</u>
<u>Property Taxes</u>		
Secured	\$8,200,000	Based on 8.6% of 1% of TAV
Unsecured	475,000	\$282 commercial acre
<u>Other Taxes</u>		
Property Transfer Tax	\$450,000	Annual Avg. \$11-\$27 per housing unit/\$60 per commercial acre
Sales & Use Tax	\$14,750,000	\$290 per housing unit/\$4,000 commercial acre
Franchise Fees	2,285,890	\$16 per housing unit/ \$763 per commercial acre
TOT	1,510,000	\$2 per housing unit/ \$75 per commercial acre
Utility Tax	3,100,000	\$21 per housing unit/\$1,035 commercial acre
<u>Licenses</u>		
Business License	\$750,000	\$535 commercial acre
Animal License	55,000	\$1 per housing unit
Bicycle License	900	\$.02 per housing unit
<u>Fines</u>		
Library Fines	\$199,050	\$4 per housing unit
Parking Citations	190,000	\$3 per housing unit/\$33 commercial acre
<u>Revenues from other Agencies</u>		
State Homeowners Prop Tax Relief	\$185,000	\$3 per housing unit
Motor Vehicle	6,900,000	\$128 per housing unit
<u>Licenses</u>		
Gas Tax	2,444,500	\$40 per housing unit, \$213 commercial
<u>Charges for Current Service</u>		
Swimming Pools	\$146,850	\$3 per housing unit
Recreation Programs	16,500	\$.31 per housing unit
Park Reservation Fees	38,000	\$.70 per housing unit



### **Secured Property Tax**

Secured property tax revenues generated from the proposed developments were calculated on the basis of a one-percent tax rate on the current market value of the residential and commercial construction. San Miguel Ranch and Vista Mother Miguel are proposed to be annexed into the City of Chula Vista. The County of San Diego and various cities within the County have an agreement (Master Property Tax Transfer Agreement), which identifies the sharing of property taxes for all unresolved jurisdictional changes submitted to the Local Agency Formation Commission on or after November 2, 1984. According to the Master Property Tax Agreement, the City of Chula Vista will receive 41-percent of the County's general fund, library fund and flood control fund. These three funds currently account for 21-percent of the property taxes collected in the subject tax rate area (63055). Therefore, 41-percent of the 21-percent equates to 8.6-percent, which would be the City's share of property tax for San Miguel Ranch and Vista Mother Miguel. It should be noted that the citywide average share of property tax is roughly 14.7-percent.

Since fiscal year 1992/1993 and fiscal year 1993/1994, in response to serious budgetary shortfalls, the State Legislature and administration permanently redirected a portion of property taxes from cities, counties, and special districts to schools and community college districts. This shift in property taxes resulted in a decrease in the City's share of property tax.

As previously mentioned, market values (assessed values) for the residential units were estimated by the developers. Market values for commercial uses were estimated using COMPS, Commercial Property Information Services, Inc. These identified market values also represent the assessed values. Although assessed values increase two percent per year and readjust after the property resells, this analysis assumes no inflation and all values remain in 1998 dollars. Included in Tables A-2 and B-2 in the appendix is the cumulative assessed value over the build-out of the developments. Total assessed values for San Miguel Ranch range from \$70.3 million during the first year (2001) to \$365.9 million at build-out (2006). Total assessed values for Vista Mother Miguel are \$11.4 million in year 2002. It should be noted all 43 units of Vista Mother Miguel are forecasted to sell in year 2002.

The City of Chula Vista's share of the collected annual property tax is \$314,700 for San Miguel Ranch (Table A-3) and \$9,800 for Vista Mother Miguel (Table B-3), at build-out.

### **Unsecured Property Tax**

Unsecured property, which includes personal property such as equipment, inventory, furniture, etc. is taxed for primarily commercial and industrial businesses. CIC utilized the County Assessor's Office estimate of unsecured tax allocation. The County Assessor

estimate 65 percent of the unsecured property tax is associated with commercial development and 25 percent is allocated to industrial development. Using the city's budget figure of \$475,000 (unsecured tax collect-FISCAL YEAR 98/99) and an estimated 1,093 acres of commercial development results in a ratio of \$282 per commercial acre ( $475,000 \times .65 \div 1,093$ ) for the City's share of unsecured property tax.

The study portion of San Miguel Ranch includes roughly 11.7 net acres of commercial uses and would generate an estimated \$3,300 in unsecured annual property tax at build-out (refer to Table A-4). No commercial space is planned for Vista Mother Miguel and therefore no unsecured property tax is expected to be collected (refer to Table B-4)

**Property Transfer Tax**

Sales of real property in San Diego County are taxed at a rate of \$1.10 per \$1,000 of the sales price. Chula Vista would receive 50 percent of the tax. An analysis conducted by the San Diego Association of Governments (SANDAG) indicates that the average turnover rate for residential property is once every seven years and once every 14 years for nonresidential property. The following formulas, which take both the transfer tax formula and the average turnover rate into account, were utilized to yield average annual per unit property transfer tax.

Single Family Residential	<u>\$.55</u>	X	1/7 =	.00007857
	\$1,000			
Commercial/Industrial	<u>\$.55</u>	X	1/14 =	.00003929
	\$1,000			

Using these formulas, an estimated annual average property tax can be calculated. The San Miguel Ranch would generate \$27,900 (refer to Table A-5) and Vista Mother Miguel would generate \$900 (refer to Table B-5) in average, annual property transfer tax at build-out.

**Sales Tax**

This fiscal impact methodology equates the collection of sales tax to primarily residential units. The City's share of sales tax generated by the study property is based on \$290 per household per year, which is based on 75 percent of the total sales tax collection in the City of Chula Vista, divided by the number of housing units. The estimated sales tax multipliers were adjusted roughly 40 percent to reflect the assumed higher household income in San Miguel Ranch and Vista Mother Miguel versus the overall city average. Household incomes were estimated for the study project using the city's ratio of household income to housing value. It was assumed that households spend 35 percent of their income on taxable goods and 75 percent of those are assumed to be spent in the City

of Chula Vista. Based on an analysis conducted by the City of San Diego's Finance Department and given the study site location and land-use mix, CIC utilized the following tax allocations, 75% for residential, 10% for retail/office and 15% for manufacturing. Given San Miguel Ranch's commercial area's proximity to the future State Route 125, it is more likely that this site would capture some sales from residents outside of Chula Vista. Some additional sales tax (over the 10% allocation for retail uses) is attributed to San Miguel. This study estimates that 20 percent of the sales will be to residents outside of Chula Vista. Using 156,000 square feet of retail space and estimated sales of \$150 per square foot, results in a multiplier of \$4,000 per acre. Estimated total annual sales tax generated by San Miguel Ranch is estimated at \$451,100 at build-out (refer to Table A-6).

Vista Mother Miguel does not include any commercial uses; therefore sales tax is attributed to the expected new residents. Vista Mother Miguel is expected to generate annual sales tax of \$12,500 at build-out (refer to Table B-6).

### **Franchise Fees**

The City of Chula Vista receives a franchise tax fee from sales of natural gas, electricity, cable television and trash collection. Using the sale of gas and electricity as a guideline and based on a study prepared by San Diego Gas and Electric (SDG&E), 37 percent of the franchise fees are attributed to residential uses, 36.5 percent to retail/office uses and the remaining 26.5 percent is attributed to industrial uses. Using these guidelines, the city budget, area demographics and land use information results in an estimated \$16 in annual franchise fees per housing unit, and \$763 per developed commercial acre. Utilizing these ratios results in a total annual franchise fee of \$30,800 for San Miguel Ranch (see Table A-7) and \$700 for Vista Mother Miguel (refer to Table B-7) at build-out.

### **Transient Occupancy Tax**

Transient occupancy tax (TOT) is a tax added to the price charged for the use of a hotel or motel room. The majority of the tax is associated with new hotel developments. The San Diego Convention and Visitors Bureau estimates that of all visitors who stay in hotels and motels, eight percent are visiting friends and an additional nine-percent are in San Diego on non-convention business. Utilizing the City's 1998/99 budget for TOT of \$1,510,000 and assuming eight percent is generated by residential land uses and nine percent by nonresidential uses (assume 50% retail and 50% industrial uses), results in multiplier ratios of roughly \$2.00 per housing unit and \$75 per commercial acre. Using these ratios the City of Chula Vista will receive a total annual TOT tax of \$4,000 associated with the San Miguel Ranch (refer to Table A-8) and \$100 associated with Vista Mother Miguel (refer to Table B-8).

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### **Utility Users' Tax**

The City of Chula Vista's FY98/99 budget for utility taxes is \$3,100,000. These taxes are paid by the residents on gas, electric and telephone services. CIC utilized the same methodology for utility taxes and franchise fees. Using the land use allocation of 37 percent residential uses, 36.5 percent to retail/office uses and 26.5 percent to industrial uses, results in an estimated \$21 in annual utility tax per housing unit and \$1,035 per developed commercial acre. These ratios result in a total annual utility tax of \$41,700 for San Miguel Ranch (refer to Table A-9) and \$900 for Vista Mother Miguel (refer to Table B-9), at build-out.

### **Business License Fees**

Business license fees are allocated based on a survey reported by the City of San Diego's Financial Management Department, which indicated that 78 percent of the fees were generated by commercial uses and 22 percent were generated by industrial uses. Using the City of Chula Vista's budget (\$750,000), the above proportions and the number of citywide developed commercial acres, results in a multiplier of \$535 per commercial acre. Using this multiplier, total business license fees attributed to San Miguel Ranch are \$6,300 per year at build-out (refer to Table A-10). No business uses are planned for Vista Mother Miguel.

### **Miscellaneous Revenues**

CIC grouped numerous revenues into the category of miscellaneous. These revenues include: animal licenses, bicycle licenses, motor vehicle licenses, State homeowners property tax relief, gas tax, library fines, parking citations, swimming pool fees, recreation programs and park reservation fees. With the exception of gas tax and parking citations, all the revenues are assumed to be allocated entirely to residential uses. For these revenues, multipliers were developed by dividing the total revenues by the total number of citywide occupied housing units. Total miscellaneous revenues attributed to San Miguel Ranch are \$257,600 per year at build-out (refer to Table A-11) and \$7,900 attributed to Vista Mother Miguel (refer to Table B-11). The allocation of gas tax and parking citations was calculated as follows:

### **Gasoline Tax**

Gasoline tax revenue accrues on the basis of a complicated formula utilizing county to state and incorporated to unincorporated portion of population. According to the City of San Diego's "Fiscal Impact of New Development" and the Department of Motor Vehicle's auto registration records, an estimated 50 percent is attributed to residential uses and the remaining 50 percent is allocated based on vehicle registration (75% residential, 19% commercial and 6% industrial).

## **Fiscal Analysis**

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### **Parking Citations**

Parking violation revenues were allocated by vehicle registration classification as estimated by the Department of Motor Vehicles (75% residential, 19% commercial and 6% industrial)

#### **4.4.14.4.5 Operating Expenditures**

Operating expenditures for the City of Chula Vista resulting from development of the San Miguel Ranch and Vista Mother Miguel are outlined in this section. The expenditure categories to be impacted by the subject developments include administration overhead, planning, police, fire, library, public works and parks and recreation. The City of Chula Vista's operating expenditure budgets for fiscal year 1998/99 and allocation assumptions are presented in Table 59. These expenses are utilized in estimating per unit/acre expenditures for the project. The methodologies used to estimate project expenses are discussed in more detail in the following sections. Similar to the revenue analysis, all figures shown are in current (1998) dollars. The projection of costs in this analysis assumes no significant or predictable changes in the service standards of the City of Chula Vista. Detailed tables reflecting the annual expenditure cash flows are presented in the appendix to this report.

**Table 59**  
**Fiscal Impact Cost Allocation Assumptions**

<b><u>Expenditures</u></b>	<b><u>City of Chula Vista Fiscal Year Expenditures</u></b>	<b><u>Allocation Assumptions</u></b>
<b>OVERHEAD FUNCTIONS</b>	\$10,139,230	
City Council	\$413,156	
Boards and Commission	\$48,738	
Community Promotions	\$242,513	
City Attorney	\$825,556	
City Clerk	\$301,037	
Administration	\$904,452	
Management	\$1,147,023	
Human Resources	\$958,346	
Finance	\$1,618,428	
Insurance	\$855,020	
Non-Department	\$2,824,961	
Public Works	\$1,786,039	

<u>Expenditures</u>	<u>City of Chula Vista Fiscal Year Expenditures</u>	<u>Allocation Assumptions</u>
Building Maintenance	\$805,863	
Custodial Maintenance	\$791,668	
Communications	\$188,508	
<b>TOTAL OVERHEAD</b>	<b>\$11,925,269</b>	Based on 22% of Line Operations
<b>LINE OPERATIONS</b>		
Planning (non-current)	\$875,336	\$13 per housing unit, \$104 commercial acre
Community Development	\$1,307,547	N/A
Police	\$21,971,976	\$296 per housing unit, \$4,622 commercial acre
Fire	\$7,734,890	\$121 per housing unit, \$1,012 commercial acre
Building and Housing	\$1,291,185	N/A
Library	\$3,986,645	\$74 per housing unit
<b>OPERATIONS</b>		
Public Works	\$10,110,638	
Operations Administration	\$452,644	\$7 per housing unit/\$54 commercial acre
Traffic Operations	\$564,554	\$726 per lane mile
Street Maintenance (1)	\$1,032,375	\$1,327 per lane mile
Street Sweeping	\$203,284	\$261 per lane mile
Street Tree Maintenance	\$449,959	\$1,402 per street mile
Sanitary Sewer Maintenance	\$1,739,502	Self-supporting
Wastewater Maintenance	\$427,705	Self-supporting
Engineering		
Traffic Signal/Lights Maintenance	\$982,441	\$2,683 per signal, \$100 per street light
Parks	\$3,127,682	\$8,399 per park acre
Administration-Parks	\$374,260	
Administration-Open Space	\$334,552	Provided by lighting/landscape district
Maintenance	\$2,418,870	
General	\$2,147,445	

# Fiscal Analysis

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<u>Expenditures</u>	<u>City of Chula Vista Fiscal Year Expenditures</u>	<u>Allocation Assumptions</u>
Marina Park	\$271,425	
Recreation	\$2,502,606	\$46 per housing unit
Athletics	\$260,720	\$5 per housing unit
Aquatics	\$516,172	\$10 per housing unit
Senior Citizens	\$288,839	\$5 per housing unit
General	\$1,062,615	\$20 per housing unit
Administration	\$374,260	\$7 per housing unit
C.V. Woman Center	\$14,002	Self-supporting

(1) Estimated at 20% in year 5, 40% in year 6, to 100% in year 9

## Government Administration

The total costs for city administration services projected in FISCAL YEAR 1998/99 are \$11,925,269, as shown in Table 59. In order to allocate these overhead expenses to the projects, CIC assumed the city cost for the subject developments would incur an overhead rate (22.2%) similar to the City of Chula Vista (city administration overhead ÷ total line operations expenditures). Tables A-12 and B-12 in the appendixes show annual overhead expenditures for San Miguel Ranch (\$229,300) and Vista Mother Miguel (\$6,400) at build-out.

## Planning (Non-Current)

Non-current planning costs are allocated based on the City of Chula Vista's land use allocation (79% residential and 13% commercial/office) and the number of housing units in the city and developed commercial acreage. Utilizing these proportions results in multipliers of \$13 per housing unit, \$104 per commercial acre. These multipliers translate into annual planning (non-current) costs of \$19,100 for San Miguel Ranch (refer to Table A-13) and \$600 for Vista Mother Miguel (refer to Table B-13).

## Police

The Chula Vista Police Department will provide police protection for the projects. CIC contacted representatives of the local police department to obtain information on service calls and beat activity attributable to residential, business and industrial land uses. No information was available regarding the nature of local calls and regular beat activity. As a result, CIC utilized City of San Diego's cost allocation by land use from the City of San Diego's "Fiscal Impact Model of New Development".

The San Diego Police Department estimates that calls for service account for roughly 50 percent of their expenditures. They are distributed as follows: 66.6% in or around

residential structures, 32.3% in or around commercial structures and 1.1% associated with industrial structures. The other 50 percent of expenditures are attributed to normal "beat" activity, and are allocated in proportion to land use acreage (79% to residential land use and 13% to commercial land use). Averaging the percentages for both service-call activity and "beat" activity yields the following per unit allocations for police service in Chula Vista

<b>Land Use</b>	<b>Combined Percent of Budget Allocation</b>	<b>Estimated Per Unit Expenditures</b>
<b>Residential</b>	73%	\$296/housing unit
<b>Commercial/Office</b>	23%	\$4,622/acre

The above estimates are based upon a Fiscal Year 1998/99 proposed police budget of \$21,971,976 and results in annual police costs of \$467,200 for San Miguel Ranch (refer to Table A-14) and \$12,700 for Vista Mother Miguel (refer to Table B-14) at build-out

### **Fire Protection**

As previously mentioned, San Miguel Ranch includes a relatively large amount of open space (2,100 acres). Fire protection for the open space will be provided by the Chula Vista Fire Department. According to the Chula Vista Fire Department, the city experiences very few brush fires compared to other service calls. However, the potential for a large brush fire does exist and the City could incur extra costs, which are not covered in the State Master Mutual-Aid Agreement.

The proposed urban uses form the basis for allocating fire costs to San Miguel Ranch. The Chula Vista Fire Department also provided CIC with a breakdown of calls for fire protection service in 1997; residential uses 84.2%, commercial uses 14.3% and industrial uses 1.5%. Based on these allocations for fire protection service, the following per unit costs were developed for the project, which results in annual fire protection costs of \$180,100 for the San Miguel Ranch (refer to Table A-15) and \$5,200 for Vista Mother Miguel (refer to Table B-15) at build-out. It should be noted that these costs do not include any expenses for large brush fires (2,100 acres of open space in San Miguel Ranch). The PFFP mentions estimated costs associated with large brush fires and potential funding mechanisms

<b><u>Land Use</u></b>	<b><u>For Fire Service</u></b>	<b>Per Unit Cost</b>
<b>Residential</b>	\$121 per housing unit	
<b>Commercial</b>	\$1,012/acre	

### **Paramedic Services**

The City of Chula Vista contracts privately with American Medical Response Group to provide paramedic services. Services are charged on a fee for service basis, at no



resulting cost to the city. Therefore, the project will not incur any current paramedic expenses and no expense category is shown in the expenditure cash flow analysis for this service. It should be noted that at some future time, the City could be asked to help fund costs associated with a new paramedic unit to handle future eastern growth.

### **Library Services**

CIC Research contacted the Chula Vista Library's Director, Mr. David Palmer regarding allocations by land use for new development's impact on library services. He was able to provide CIC with a breakdown of resident versus nonresident patronage. In fiscal year 1996/1997, 37 percent of local library use (three branches) was by nonresidents of the community. Alternatively, 63 percent of library use was by residents. Since the library is primarily a local resource used by residents as opposed to businesses, the entire budget is allocated to residential uses.

In the Fiscal Year 1998/99 proposed budget, total library costs are estimated at \$3,986,645, which calculates to a multiplier of \$74 per housing unit. Total annual library costs associated with San Miguel Ranch are \$103,000 (refer to Table A-16) and \$3,200 for Vista Mother Miguel (refer to Table B-16) at build-out.

### **Public Works**

The Public Works Department has a proposed Fiscal Year 1998/99 budget of \$10,110,638 (this figure excludes some overhead costs, which were included in overhead functions). The Public Works Department is divided into operations and engineering. Mr. David Byers (Deputy Director of Public Works/Operations) assisted CIC in allocating operation costs to the project. Building maintenance, custodial maintenance and communications were included in city overhead functions. Operations' administration costs were allocated based on developed acreage proportions and housing units. The other operation costs were allocated on a per street or lane mile basis. As presented in Table 57, the City of Chula Vista includes 321 street miles and 778 lane miles. San Miguel Ranch is expected to include 10.7 street miles and 26.1 lane miles (17.3 residential and 8.8 major streets) and Vista Mother Miguel is expected to include 0.2 public street miles and 0.4 lane miles at build-out. All of the operation costs begin in year one with the exception of street maintenance (begins in year 5 at 20% and adds 20% each year to year 9). The following Table 60 details the results of the above allocations.

**Table 60**  
**City of Chula Vista Public Works Cost per Unit/Acre/Mile**

		<u>Allocation</u>
<b>Operations</b>		
Administration	\$452,644	\$7 per housing unit/\$54 commercial acre
Traffic Operations	564,554	\$726 per lane mile
Street Maintenance	1,032,375	\$1,327 per lane mile (1)
Street Sweeping	203,284	\$261 per lane mile
Street Tree Maintenance	449,959	\$1,402 per street mile
Wastewater Maintenance	1,739,502	Self supporting
Wastewater Life Station	427,705	Self supporting
<b>Maint</b>		
<b>Engineering</b>		
Traffic Signal Maint.		
Signal costs	\$389,035	\$2,683 per signal
Street light costs	594,000	\$100 per street light
Transit Service Operations	180,655	Self supporting
Environmental Mgmt.	164,207	Self supporting

(1) Begins in year 5 at 20%, 40% in year 6 to 100% in year 9

Mr. Cliff Swanson (Deputy Director of Public Works/City Engineer) assisted CIC in allocating public works engineering costs. Numerous engineering costs are entirely self-funded with fees. Traffic signal and street light operations and maintenance costs were allocated based on the number of citywide signals and street lights (145 signals and 5,940 street lights) and estimated project signals and lights (4 signals and 162 street lights). The estimated numbers of streetlights in the projects were calculated based on the city standard of one light per 350 feet. Table 60 details engineering cost allocations.

Using the identified ratios and multipliers result in a total annual public works cost of \$94,500 for San Miguel Ranch and \$1,700 for Vista Mother Miguel at build-out (refer to Table A-17 and B-17). Because of the length of the presented building schedule, these figures include average annual (15 year) estimates for street maintenance. Because these street maintenance costs will occur infrequently or possibly delayed depending on conditions, the public works cost will be less in some years and more in other years.

#### **Parks and Recreation Services**

The City of Chula Vista's FISCAL YEAR 1998/99 proposed park and recreation budget is \$5,644,290. CIC Research contacted Mr. Jerry Foncerrada with the Chula Vista Parks and Recreation Department. He indicated that close to 100 percent of the department's expenditures go towards the local residential community. The public works department

## Fiscal Analysis

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handles the maintenance of city parks and provided park maintenance costs of \$8,399 per public park acre. CIC allocated the park cost on a per acre (340 acres citywide and 12.45 required acres for San Miguel Ranch) and recreation costs on a per housing unit basis.

Annual park maintenance costs allocated to San Miguel Ranch are estimated at \$104,568 at build-out ( $\$8,399 \times 12.45$ ). Vista Mother Miguel does not include any park uses. However, park costs of  $\$8,399 \times .4$  acres were applied because of the city's requirement for 3 acres of park per 1,000 population. Therefore, annual park maintenance engineering costs for Vista Mother Miguel are \$3,400. Excluding the Women's Club, which is assumed to be self-supporting, costs for recreation services total \$46 per housing unit. Using this multiplier, results in costs of \$64,600 for the San Miguel Ranch (refer to Table A-18) and \$2,000 for Vista Mother Miguel (refer to Table B-18). The following table details the cost allocation for Parks and Recreation.

	<u>98/99 Budget</u>	<u>Cost Allocation Unit/Acre</u>
Parks	\$3,127,684	\$8,399 per park acre
Administration-Parks	374,260	
Administration-Open Space	334,552	Provided by lighting & landscape district
Maintenance	2,418,870	
General	2,147,445	
Marina Park	271,425	Not applicable
Recreation	\$2,502,606	\$46 per housing unit
Athletics	260,720	\$5 per housing unit
Aquatics	516,172	\$10 per housing unit
Senior Citizens	288,839	\$5 per housing unit
General	1,062,615	\$20 per housing unit
Administration-Recreation	374,260	\$7 per housing unit

### Net Fiscal Impact

Utilizing the previously mentioned methodologies, estimated net fiscal impacts are presented in Tables 61 and 62. As previously mentioned, all values are in 1998 dollars. No annual adjustments to revenues or costs were utilized. The estimated annual flows of costs and revenues are primarily related to the estimated project absorption.

Table 61 presents the results of the fiscal impact associated with the San Miguel Ranch. Fiscal revenues range from \$219,500 in the first year of development (2001) to \$1,137,300 at build-out (2006). Fiscal expenditures range from \$219,100 in year one to \$1,262,400 at build-out. The net fiscal impact from developing the San Miguel Ranch is a positive \$400 in year one and becomes a negative \$125,100 at project build-out. It should be noted that during some years the net fiscal impact will be more or less due to infrequently needed street repairs.

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San Miguel Ranch consists of a typical mixed land-use plan including single family homes, multi-family homes, neighborhood shopping center, parks and school. The homes range from \$140,000 for a multi-family unit to \$400,000 for a single family home on a large lot. The median housing price and associated estimated household income for San Miguel Ranch are significantly higher than the overall city. The San Miguel Ranch is expected to generate higher than average per unit property and sales taxes. Other revenues are expected to be at or above city averages. In terms of expenditures, this project is not expected to incur any unusual or higher than average costs for city services.

The primary factor responsible for this project's negative fiscal impact is primarily due to the relatively small city share of property taxes under the existing annexation agreement with the County. Because the project is currently located in the County of San Diego and proposed to be annexed into the City of Chula Vista, the city's share of property tax is determined by the City/County Master Tax Agreement, which limits the city's share to 8.6 percent. For properties located within the City of Chula Vista, the average city share of property tax is roughly 14.7 percent. If San Miguel Ranch utilized a 14.7 percent share, the fiscal impact would be positive for all years presented in Table 61. The last year presented based on a 14.7 percent share would be positive \$98,200.

Table 62 presents the results of the fiscal impact associated with Vista Mother Miguel. Fiscal revenues are \$32,700 in year 2002 and remain the same throughout the presented development schedule, due to forecasted one-year absorption schedule. Fiscal expenditures are \$34,700 in 2002 and increase to \$35,000 at build-out. The increase in expenses is related to the infrequent street repair costs. The net fiscal impact from developing Vista Mother Miguel is a negative \$2,000 for all presented years except the year 2006 (\$2,300), which includes street maintenance costs. Similar to San Miguel Ranch, the median housing price and associated estimated household income for Vista Mother Miguel are significantly higher than the overall city. Vista Mother Miguel is expected to generate higher than average per unit property and sales taxes. Other revenues are expected to be at or above city averages. In terms of expenditures, this project is not expected to incur any unusual or higher than average costs for city services. This project is also proposed to be annexed into the city, which limits the city's share of property tax to 8.6 percent.

For both the San Miguel Ranch project and the Vista Mother Miguel subdivision, the City and the developer will negotiate and establish a fee program to offset the projected fiscal deficits through a condition of approval of the SPA and/or tentative subdivision map.

**Fiscal Analysis**

**Table 61**  
**NET FISCAL IMPACT OF THE SAN MIGUEL RANCH**  
**ON THE CITY OF CHULA VISTA**

Revenue Sources	Revenues (In Thousands)					
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Secured Property Tax	\$60.4	\$131.4	\$196.5	\$262.3	\$314.7	\$314.7
Unsecured Property Tax	\$0.0	\$0.0	\$0.0	\$0.0	\$3.3	\$3.3
Property Transfer Tax	\$5.5	\$12.0	\$17.9	\$24.0	\$27.9	\$27.9
Sales & Use Tax	\$87.0	\$188.5	\$265.6	\$352.9	\$451.1	\$451.1
Franchise Tax	\$4.7	\$10.2	\$14.4	\$19.1	\$30.8	\$30.8
TOI Tax	\$0.7	\$1.5	\$2.1	\$2.7	\$4.0	\$4.0
Utility Tax	\$6.4	\$13.8	\$19.5	\$25.9	\$41.7	\$41.7
Business License	\$0.0	\$0.0	\$0.0	\$0.0	\$6.3	\$6.3
Miscellaneous Revenues	<u>\$54.8</u>	<u>\$118.8</u>	<u>\$167.4</u>	<u>\$222.4</u>	<u>\$257.6</u>	<u>\$257.6</u>
<b>TOTAL REVENUES</b>	<b>\$219.5</b>	<b>\$476.1</b>	<b>\$683.3</b>	<b>\$909.3</b>	<b>\$1,137.3</b>	<b>\$1,137.3</b>
Expenditure Sources	Expenditures (In Thousands)					
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Government Admin.	\$39.8	\$94.1	\$137.2	\$185.0	\$225.6	\$229.3
Planning	\$3.8	\$8.3	\$11.7	\$15.6	\$19.1	\$19.1
Police	\$88.9	\$192.6	\$271.5	\$360.7	\$467.4	\$467.2
Fire	\$36.2	\$78.4	\$110.5	\$146.9	\$180.1	\$180.1
Library	\$22.2	\$48.0	\$67.7	\$89.9	\$103.0	\$103.0
Public Works	\$14.2	\$33.5	\$48.7	\$65.7	\$77.6	\$94.5
Park and Recreation	<u>\$13.9</u>	<u>\$62.9</u>	<u>\$108.0</u>	<u>\$154.7</u>	<u>\$169.2</u>	<u>\$169.2</u>
<b>TOTAL EXPENDITURES</b>	<b>\$219.1</b>	<b>\$518.0</b>	<b>\$755.4</b>	<b>\$1,018.4</b>	<b>\$1,241.7</b>	<b>\$1,262.4</b>
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
TOTAL REVENUES	\$219.5	\$476.1	\$683.3	\$909.3	\$1,137.3	\$1,137.3
TOTAL EXPENDITURES	<u>\$219.1</u>	<u>\$518.0</u>	<u>\$755.4</u>	<u>\$1,018.4</u>	<u>\$1,241.7</u>	<u>\$1,262.4</u>
<b>NET FISCAL IMPACT</b>	<b>\$0.4</b>	<b>(\$41.9)</b>	<b>(\$72.0)</b>	<b>(\$109.1)</b>	<b>(\$104.3)</b>	<b>(\$125.1)</b>

**Table 62**  
**NET FISCAL IMPACT OF VISTA MOTHER MIGUEL**  
**ON THE CITY OF CHULA VISTA**

Revenue Sources	Revenues (In Thousands)					
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Secured Property Tax	\$0.0	\$9.8	\$9.8	\$9.8	\$9.8	\$9.8
Unsecured Property Tax	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Property Transfer Tax	\$0.0	\$0.9	\$0.9	\$0.9	\$0.9	\$0.9
Sales & Use Tax	\$0.0	\$12.5	\$12.5	\$12.5	\$12.5	\$12.5
Franchise Tax	\$0.0	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7
TOT Tax	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
Utility Tax	\$0.0	\$0.9	\$0.9	\$0.9	\$0.9	\$0.9
Business License	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Miscellaneous Revenues	<u>\$0.0</u>	<u>\$7.9</u>	<u>\$7.9</u>	<u>\$7.9</u>	<u>\$7.9</u>	<u>\$7.9</u>
<b>TOTAL REVENUES</b>	<b>\$0.0</b>	<b>\$32.7</b>	<b>\$32.7</b>	<b>\$32.7</b>	<b>\$32.7</b>	<b>\$32.7</b>
Expenditure Sources	Expenditures (In Thousands)					
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Government Admin.	\$0.0	\$6.3	\$6.3	\$6.3	\$6.3	\$6.4
Planning	\$0.0	\$0.6	\$0.6	\$0.6	\$0.6	\$0.6
Police	\$0.0	\$12.7	\$12.7	\$12.7	\$12.7	\$12.7
Fire	\$0.0	\$5.2	\$5.2	\$5.2	\$5.2	\$5.2
Library	\$0.0	\$3.2	\$3.2	\$3.2	\$3.2	\$3.2
Public Works	\$0.0	\$1.4	\$1.4	\$1.4	\$1.4	\$1.7
Park and Recreation	<u>\$0.0</u>	<u>\$5.4</u>	<u>\$5.4</u>	<u>\$5.4</u>	<u>\$5.4</u>	<u>\$5.4</u>
<b>TOTAL EXPENDITURES</b>	<b>\$0.0</b>	<b>\$34.7</b>	<b>\$34.7</b>	<b>\$34.7</b>	<b>\$34.7</b>	<b>\$35.0</b>
<b>TOTAL REVENUES</b>	<u>\$0.0</u>	<u>\$32.7</u>	<u>\$32.7</u>	<u>\$32.7</u>	<u>\$32.7</u>	<u>\$32.7</u>
<b>TOTAL EXPENDITURES</b>	<u>\$0.0</u>	<u>\$34.7</u>	<u>\$34.7</u>	<u>\$34.7</u>	<u>\$34.7</u>	<u>\$35.0</u>
<b>NET FISCAL IMPACT</b>	<b>\$0.0</b>	<b>(\$2.0)</b>	<b>(\$2.0)</b>	<b>(\$2.0)</b>	<b>(\$2.0)</b>	<b>(\$2.3)</b>

## **4.0 PUBLIC FACILITY FINANCE**

## **4.1 PUBLIC FACILITY FINANCE**

### **4.1.1 Overview**

The City will ensure the appropriate public facilities financing mechanisms are utilized to fund the acquisition, construction and maintenance of public facilities required to support the planned development of the San Miguel Ranch project in compliance with the City's Growth Management Program.

Public facilities are generally provided or financed in one of the following three ways:

- |    |                        |   |
|----|------------------------|---|
| 1. | Subdivision Exaction   | Developer constructed and financed as a condition of project approval.  |
| 2. | Development Impact Fee | Funded through the collection of an impact fee. Constructed by the public agency or developer constructed with a reimbursement or credit against specific fees. |
| 3. | Debt Financing         | Funded using one of several debt finance mechanisms. Constructed by the public agency or developer.   |

It is anticipated that all three methods will be utilized for the San Miguel Ranch project to construct and finance public facilities.

### **4.1.2 Subdivision Exactions**

Neighborhood level public improvements will be developed simultaneously with related residential and nonresidential subdivisions. Through the use of the Subdivision Map Act, it is the responsibility of the developer to provide for all local street, utility and recreation improvements. The use of subdivision conditions and exactions, where appropriate, will insure that the construction of neighborhood facilities is timed with actual development.

The imposition of subdivision conditions and exactions does not preclude the use of other public facilities financing mechanisms to finance the public improvement, when appropriate.



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### 4.1.3 Development Impact Fee Programs

Development Impact Fees are imposed by various governmental agencies, consist with State law, to contribute to the financing of capital facilities improvements within the City of Chula Vista. The distinguishing factor between a fee and a subdivision exaction is that exactions are requested of a specific developer for a specific project whereas fees are levied on all development projects throughout the City or benefit area pursuant to an established formula and in compliance with State law.

San Miguel Ranch, through policy decisions of the City of Chula Vista and other governing agencies, is subject to fees established to help defray the cost of facilities which will benefit San Miguel Ranch and areas beyond this specific project. These fees may include but not be limited to:

1. *Eastern Chula Vista Transportation Impact Fee C Street DIF* established to provide financing for circulation element road projects of regional significance in the area east of Interstate 805.
2. *Interim Pre-SR 125 Transportation Fee* - Effective January 1, 1995, to fund interim improvements within the SR 125 right-of way consistent with the pre SR 125 strategy as identified in the *Interim State Route 125 Facility Feasibility Study* dated May 1993.
3. *Public Facilities Development Impact Fee C Public Facilities DIF* established to collect funds for Civic Center Facilities, Police Facility Remodeling, Corporation Yard Relocation, Libraries, Fire Suppression System, Geographical Information System, Mainframe Computer, Telephone System Upgrade and a Records Management System.
4. *Park Acquisition and Development Fee C PAD Fee* established to pay for the acquisition and development of park facilities.
5. *Traffic Signal Fee C* to pay for traffic signals associated with circulation element streets.
6. *Telegraph Canyon Drainage Basin Fee C* to pay for constructing drainage channel improvements within the Telegraph Canyon Drainage Basin.
7. *Telegraph Canyon Sewer Basin Fee C* to pay for sewer basin improvements necessitated by future development in the basin as identified in the *Telegraph Canyon Sewer Basin Improvement and Financing Plan* dated July 31, 1992.

## Public Facility Finance

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8. *Telegraph Canyon Sewer Basin Pumping Fee C* to pay for out-of-basin flows needing to be pumped into the Telegraph Canyon basin as described in the *Telegraph Canyon Sewer Basin Improvement and Financing Plan Amendment Incorporating Pumped Flows* dated June 9, 1993.
9. *Salt Creek Sewer Basin Development Impact Fee C* to pay for constructing sewer improvements within the Salt Creek basin.
10. *Poggi Canyon Sewer Basin Development Impact Fee C* to pay for constructing sewer improvements within the Poggi Canyon basin.
11. *Pedestrian Bridge Development Impact Fee C* to pay for constructing a pedestrian bridge to serve the Otay Ranch Villages I and V only.
12. *State Mandated School Impact Fees C* payable to the Chula Vista City School District and Sweetwater Union High School District. It should be noted that both school districts generally require development projects to annex into existing Mello Roos Community Facilities Districts in lieu of paying State mandated school fees.
13. *Otay Water District Fees C* It should be noted that the Water District may require the formation of or annexation to an existing improvement district or creation of some other finance mechanism which may result in specific fees being waived.

### 4.1.4 Debt Finance Programs

The City of Chula Vista has used assessment districts to finance a number of street improvements, as well as sewer and drainage facilities. Both school districts have implemented Mello-Roos Community Facilities Districts to finance school facilities

#### Assessment Districts

Special assessment districts may be proposed for the purpose of acquiring, constructing, maintaining certain public improvements under the Municipal Improvement Act of 1913, the Improvement Bond Act of 1915, the Benefit Assessment Act of 1982, and the Lighting and Landscape Act of 1972. The general administration of the special assessment district is the responsibility of the public agency.

Special assessment financing may be appropriate when the value or benefit of the public facility can be assigned to a specific property. Assessments are levied in specific amounts against each individual property on the basis of relative benefit.

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Special assessments may be used for both publicly dedicated on-site and off-site improvements and maintenance.

As a matter of policy, the City limits the type of improvements which can be financed by assessment district bonding in residential projects. Such improvements are generally limited to collector streets and larger serving entire neighborhood areas or larger. This policy applies to backbone infrastructure including streets, water, sewer, storm drain, and dry utility systems.

### **Mello-Roos Community Facilities Act of 1982**

The Mello-Roos Community Facilities Act of 1982 authorizes formation of community facilities districts which impose special taxes to provide the financing of certain public facilities or services. Facilities which can be provided under the Mello-Roos Act include the purchase, construction, expansion, or rehabilitation of the following:

1. Local park, recreation, or parkway facilities;
2. Elementary and secondary school sites and structures;
3. Libraries;
4. Any other governmental facilities that legislative bodies are authorized to construct, own or operate including certain improvements to private property

## **4.1.5 Other Methods Used to Finance Facilities**

### **General Fund**

The City of Chula Vista's general fund serves to pay for many public services throughout the City. Those facilities and services identified as being funded by general fund sources represent those that will benefit not only the residents of the proposed project, but also Chula Vista residents throughout the City. In most cases, other financing mechanisms are available to initially construct or provide the facility or service, then general fund monies would only be expected to fund the maintenance costs once the facility is accepted by the City.

### **State and Federal Funding**

Although rarely available to fund an entire project, Federal and State financial and technical assistance programs have been available to public agencies, in particular the public school districts.

The City was awarded a \$6 million State Grant to construct the Montgomery/Otay Library.

## **Public Facility Finance**

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### **Dedications**

Dedication of sites by developers for public capital facilities is a common financing tool used by many cities. In the case of San Miguel Ranch, the following public sites are proposed to be dedicated:

1. Roads (if public)
2. Park sites
3. Open space and public trail systems

### **Homeowners Associations**

One or more Community Homeowner Associations may be established by the developer to manage, operate and maintain private facilities and common areas within San Miguel Ranch.

### **Developer Reimbursement Agreements**

Certain facilities that are off-site of San Miguel Ranch and/or provide regional benefits may be constructed in conjunction with the development of San Miguel Ranch. In such instances, developer reimbursement agreements will be executed to provide for a future payback to the developer for the additional cost of these facilities. Future developments are required to pay back their fair share of the costs for the shared facility when development occurs.

### **Special Agreements/Development Agreement**

This category includes special development programs for financing construction of Telegraph Canyon Road and State Route 125. It also includes any other special arrangements between the City and the developer such as credits against fees, waiver of fees, or charges for the construction of specific facilities.

A development agreement can play an essential role in the implementation of the Public Facilities Financing Plan. The Public Facilities Financing Plan clearly details all public facility responsibilities and assures that the construction of all necessary public improvements will be appropriately phased with actual development, while the development agreement identifies the obligations and requirements of both parties.

## **4.1.6 Public Facility Finance Policies**

The following finance policies were included and approved with the Growth Management Program to maintain a financial management system that will be implemented consistently when considering future development applications. These policies will

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enable the City to effectively manage its fiscal resources in response to the demands placed on the City by future growth.

1. Prior to receiving final approval, developers shall demonstrate and guarantee that compliance is maintained with the City's adopted threshold standards.
2. The Capital Improvement Program Budget will be consistent with the goals and objectives of the Growth Management Program. The Capital Improvement Program Budget establishes the timing for funding of all fee related public improvements.
3. The priority and timing of public facility improvements identified in the various City fee programs shall be made at the sole discretion of the City Council.
4. Priority for funding from the City's various fee programs shall be given to those projects which facilitate the logical extension or provision of public facilities as defined in the Growth Management Program.
5. Fee credits, reimbursement agreements, developer agreements or public financing mechanisms shall be considered only when it is in the public interest to use them or these financing methods are needed to rectify an existing facility threshold deficiency. Such action shall not induce growth by prematurely extending or upgrading public facilities.
6. All fee credit arrangements or reimbursement agreements will be made based upon the City's plans for the timing and funding of public facilities contained in the Capital Improvement Program Budget.
7. Public facility improvements made ahead of the City's plans to construct the facilities will result in the need for additional operating and maintenance funds. Therefore all such costs associated with the facility construction shall become the responsibility of the developer until such time as the City had previously planned the facility improvement to be made

### 4.1.7 Cumulative Debt

The City of Chula Vista has an established policy limiting the maximum debt to be placed on a residential dwelling unit to an additional one percent above the property tax. This policy was restated in the adopted Growth Management Program.

Like many other cities, Chula Vista has long understood that it is not the only agency which can utilize public finance mechanisms and, therefore, can not always guarantee that the total debt will remain at or below a maximum of 2 percent. As a result, the City makes an effort to coordinate its debt finance programs with the other special districts (schools and water) which provide service to the residents of Chula Vista to ensure that the cumulative debt does not become excessive. Coordination is also necessary to guarantee all public facilities needed to support a development can be financed and constructed as needed.

Debt capacity is found by totaling the assessed value of residential and commercial/industrial property and applying to this total two percent rate cap established by City policy as can be seen in Table 63. Subtracting from this total assessed value the value of taxes resulting from application of the effective property tax rate as determined by the County Tax Collector (1.12%), produces the revenue available from indebtedness that could be placed on the property.

Table 64 identifies \$13,577,400 as the estimated cost of facilities that may qualify for debt financing. This amount is less than any of the alternative interest cost and bond term examples identified on the following page. Using the alternative of 6.5% net interest cost (NIC) and 25 year bond term applied to a conservative \$3 million in available annual debt service allows for the financing of approximately \$39 million in eligible improvements. This results in an excess bonding capacity of approximately \$25 million, some of which will be utilized by school financing. Therefore, there appears to be sufficient revenue capacity available to finance the improvements listed, although additional analysis will be required at the time of the first utilization of debt financing in the SPA.

The Public Works Department generally requires the preparation of an assessment district feasibility plan for the build-out of a master planned community prior to initiation of the first assessment district in order to determine the debt capacity limits and benefit zones related to using public financing to fund infrastructure improvements.

<b>TABLE 63</b>			
<b>Estimated Revenue Available for Debt Service on Land Secured Financings</b>			
<b>DU's or Acres</b>	<b>Assessed Value/Unit or Acre</b>	<b>FAR<sup>17</sup></b>	<b>Total AV</b>
<b>San Miguel Ranch</b>			
1,394 Dwelling Units	\$265,000	N/A	\$369,410,000.00
11.7 Commercial Acres	\$1,675,000	N/A	\$19,597,500.00
		Subtotal Assessed Value	\$389,007,500.00
<b>Vista Mother Miguel</b>			
43 Dwelling Units	\$265,000	N/A	\$1,060,000.00
		Subtotal Assessed Value	\$1,060,000.00
		<b>TOTAL ASSESSED VALUE</b>	<b>\$390,067,500.00</b>
		2.0% Tax Rate Cap By City Policy	\$7,801,350.00
		1.12% Tax Rate Utilized	\$4,368,756.00
		<b>ANNUAL REVENUE AVAILABLE TO PAY DEBT SERVICE @ 2.00% - 1.12%</b>	<b>\$3,432,594.00</b>

Using \$3 million as a conservative amount available for annual debt service and varying the net interest cost (NIC) and term of bond, the following public facility costs could be funded through a financing vehicle such as Mello-Roos and special assessment districts bonds

- A 5.5% (NIC) and 30 year term will fund approximately \$46.0 million.
- A 6.5% (NIC) and 25 year term will fund approximately \$39.0 million.
- A 6.5% (NIC) and 20 year term will fund approximately \$35.2 million.
- A 7.5% (NIC) and 25 year term will fund approximately \$35.9 million.
- A 7.5% (NIC) and 20 year term will fund approximately \$32.9 million.

<sup>17</sup> Floor Area Ratio Used as a percentage to calculate building square footage from parcel acreage

**Public Facility Finance**

**TABLE 64**  
**Estimate of Facilities Cost Potentially Funded from Debt Service**

Facility	Segment	Cost
<b>San Miguel Ranch</b>		
Mt. Miguel Road (Phase I)	Easterly Limit to Street "I"	\$2,486,000
Mt. Miguel Road (Phase II)	Street "I" to Street "A"	\$2,486,000
Mt. Miguel Road (Phase III)	Street "A" to Westerly Limit	\$4,876,000
Proctor Valley Road	Reach 4	\$641,600
Proctor Valley Road	Reach 1, 2, and 3	\$3,087,800
<b>Subtotal San Miguel Ranch</b>		<b>\$13,577,400</b>
<b>Vista Mother Miguel</b>		
To be determined		
<b>Subtotal Vista Mother Miguel</b>		<b>TBD</b>
<b>TOTAL COST OF ALL ELIGIBLE FACILITIES</b>		<b>\$13,577,400</b>



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## 4.1.8 Lifecycle Cost

Section 19.09.060 Analysis subsection F(2) of the Growth Management Ordinance requires the following:

"The inventory shall include Life Cycle Cost ("LCC") projections for each element in 19.09.060(E) as they pertain to City fiscal responsibility. The LCC projections shall be for estimated life cycle for each element analyzed. The model used shall be able to identify and estimate initial and recurring life cycle costs for the elements"

### **Background**

The following material presents information on the general aspects of life cycle cost analysis as well as its specific application to the City of Chula Vista operations. The discussion regarding the general benefits and process of LCC is meant to provide a common base of understanding upon which further analysis can take place.

Life cycle costing (LCC) is a method of calculating the total cost of asset ownership over the life span of the asset. Initial costs and all subsequent expected costs of significance are included in the life cycle cost analysis as well as disposal value and any other quantifiable benefits to be derived as a result of owning the asset. Operating and maintenance costs over the life of an asset often times far exceed initial costs and must be factored into the (decision) process.

Life cycle cost analysis should not be used in each and every purchase of an asset. The process itself carries a cost and therefore can add to the cost of the asset. Life Cycle Cost analysis can be justified only in those cases in which the cost of the analysis can be more than offset by the savings derived through the purchase of the asset.

Four major factors which may influence the economic feasibility of applying LCC analysis are:

1. Energy Intensiveness C LCC should be considered when the anticipated energy costs of the purchase are expected to be large throughout its life
2. Life Expectancy C For assets with long lives (i.e., greater than five years), costs other than purchase price take on added importance. For assets with short lives, the initial costs become a more important factor.
3. Efficiency C The efficiency of operation and maintenance can have significant impact on overall costs. LCC is beneficial when savings can be achieved through reduction of maintenance costs.

4. Investment Cost C As a general rule, the larger the investment the more important LCC analysis becomes.

The four major factors listed above are not, however, necessary ingredients for life cycle cost analysis. A quick test to determine whether life cycle costing would apply to a purchase is to ask whether there are any post-purchase costs associated with it. Life cycle costs are a combination of initial and post-purchase costs.

### Applications for LCC Analysis

The City of Chula Vista utilizes the concepts of life cycle cost analysis in determining the most cost effective purchase of capital equipment as well as in the determination of replacement costs for a variety of rolling stock. City staff uses LCC techniques in the preparation of the City's Five Year Capital Improvement Budget (CIP) as well as in the Capital Outlay sections of the annual Operating Budget.

In addition to these existing processes, the City should require the use of LCC analysis prior to or concurrent with the design of public facilities required by new development. Such a requirement will assist in the determination of the most cost effective selection of public facilities.

# **Appendix A**

**SAN MIGUEL RANCH FISCAL IMPACT**

Table A-1  
ABSORPTION SCHEDULE BY LAND USE

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Developed and Occupied Units/Net Acres						TOTAL
		2001	2002	2003	2004	2005	2006	
<b>SINGLE FAMILY RESIDENTIAL UNITS</b>								
Low (0 to 3 per Acre)	\$400	0	0	90	158	158	158	158
Low to Medium (3 to 6 per Acre)	\$265	150	325	425	550	664	664	664
Medium (6 to 11 per Acre)	\$225	100	225	241	241	241	241	241
<b>TOTAL SINGLE FAMILY UNITS</b>		250	550	756	949	1063	1063	1063
<b>MULTI FAMILY RESIDENTIAL UNITS</b>								
Medium (6 to 11 per acre)	\$160	50	100	160	218	218	218	218
Medium High (11 to 18 per acre)	\$140	0	0	0	50	113	113	113
<b>TOTAL MULTIFAMILY UNITS</b>		50	100	160	268	331	331	331
<b>RETAIL COMMERCIAL ACRES</b>	\$1 867	0 0	0 0	0 0	0 0	11 7	11 7	11 7

Table A-2  
ASSESSED VALUE

Land Use	Per Unit/ Net Acre Value (000 s)	Cumulative Assessed Value(000's)					
		2001	2002	2003	2004	2005	2006
<b>SINGLE FAMILY RESIDENTIAL UNITS</b>							
Low (0 to 3 per Acre)	\$400	\$ -	\$ -	\$ 36 000	\$ 63 200	\$ 63 200	\$ 63 200
Low to Medium (3 to 6 per Acre)	\$265	\$ 39 750	\$ 86 125	\$ 112 625	\$ 145 750	\$ 175 960	\$ 175 960
Medium (6 to 11 per Acre)	\$225	\$ 22,500	\$ 50,625	\$ 54,225	\$ 54,225	\$ 54,225	\$ 54,225
<b>TOTAL SINGLE FAMILY UNITS</b>		\$ 62,250	\$ 136 750	\$ 202,850	\$ 263 175	\$ 293 385	\$ 293 385
<b>MULTI FAMILY RESIDENTIAL UNITS</b>							
Medium (6 to 11 per acre)	\$160	\$ 8 000	\$ 16 000	\$ 25 600	\$ 34 880	\$ 34 880	\$ 34 880
Medium High (11 to 18 per acre)	\$140	\$ -	\$ -	\$ -	\$ 7,000	\$ 15,820	\$ 15,820
<b>TOTAL MULTIFAMILY UNITS</b>		\$ 8 000	\$ 16 000	\$ 25 600	\$ 41 880	\$ 50 700	\$ 50 700
<b>RETAIL COMMERCIAL ACRES</b>	\$1 867	\$ -	\$ -	\$ -	\$ -	\$ 21 844	\$ 21 844

Table A-3  
Secured Property Tax Revenue (000s)

SECURED PROPERTY TAX REVENUES	2001	2002	2003	2004	2005	2006
<b>TOTAL SAN MIGUEL RANCH</b>						
Total Assessed Values	\$ 70,250	\$ 152 750	\$ 228 450	\$ 305 055	\$ 365 929	\$ 365 929
Tax Rate 1.0%	\$703	\$1,528	\$2,285	\$3,051	\$3,659	\$3,659
<b>TOTAL CHULA VISTA SHARE*</b>	8 6%	\$60.4	\$131.4	\$196.5	\$262.3	\$314.7

Table A-4  
Unsecured Property Tax Revenue (000 s)

UNSECURED PROPERTY TAX	Tax Per Acre	2001	2002	2003	2004	2005	2006
Commercial Uses	\$282.0	\$0	\$0	\$0	\$0	\$3	\$3
<b>TOTAL SAN MIGUEL RANCH</b>		\$0.0	\$0.0	\$0.0	\$0.0	\$3.3	\$3.3

\* Derived from discussions with the County Assessors Office and the City of Chula Vista (According to the Master Tax Agreement between the City of Chula Vista and the County 41% of the County's general library and flood control funds would go to the city )

Table A-5  
ESTIMATED PROPERTY TRANSFER TAX REVENUES

Single Family Resale Ratio 0.00007857  
Commercial Resale Ratio 0.00003929

Product	Resale Rate (Years)	Property Transfer Tax (000s)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	7	\$4.9	\$10.7	\$15.9	\$20.7	\$23.1	\$23.1
Total Multi Family Units	7	\$0.6	\$1.3	\$2.0	\$3.3	\$4.0	\$4.0
Total Retail Commercial Acres	14	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$0.9
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$5.5</b>	<b>\$12.0</b>	<b>\$17.9</b>	<b>\$24.0</b>	<b>\$27.9</b>	<b>\$27.9</b>

Table A-6  
ESTIMATED SALES TAX REVENUES

1998/1999 Budget For Sales Tax \$14,750,000

Land Use	Sales Tax Per Unit/Acre (000s)	City of Chula Vista's Share of Sales Tax (000s)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	\$0.290	\$72.5	\$159.5	\$219.2	\$275.2	\$308.3	\$308.3
Total Multi Family Units	\$0.290	\$14.5	\$29.0	\$46.4	\$77.7	\$96.0	\$96.0
Total Retail Commercial Acres	\$4.000	\$0.0	\$0.0	\$0.0	\$0.0	\$46.8	\$46.8
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$87.0</b>	<b>\$188.5</b>	<b>\$265.6</b>	<b>\$352.9</b>	<b>\$451.1</b>	<b>\$451.1</b>

Table A-7  
ESTIMATED FRANCHISE FEES

1998/1999 Budget For Franchise Fees \$2,285,890

Land Use	Per Unit	Franchise Fee Revenue (000's)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	\$15.67	\$3.9	\$8.6	\$11.8	\$14.9	\$16.7	\$16.7
Total Multi Family Units	\$15.67	\$0.8	\$1.6	\$2.5	\$4.2	\$5.2	\$5.2
Total Retail Commercial Acres	\$763.00	\$0.0	\$0.0	\$0.0	\$0.0	\$8.9	\$8.9
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$4.7</b>	<b>\$10.2</b>	<b>\$14.4</b>	<b>\$19.1</b>	<b>\$30.8</b>	<b>\$30.8</b>

Table A-8  
ESTIMATED TRANSIENT OCCUPANCY TAX

1998/1999 Budget For Transient Occupancy Tax \$1,510,000

Land Use	TOT per Unit/Net Acre	Transient Occupancy Tax (000's)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	\$2.24	\$0.6	\$1.2	\$1.7	\$2.1	\$2.4	\$2.4
Total Multi Family Units	\$2.24	\$0.1	\$0.2	\$0.4	\$0.6	\$0.7	\$0.7
Total Retail Commercial Acres	\$74.75	\$0.0	\$0.0	\$0.0	\$0.0	\$0.9	\$0.9
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$0.7</b>	<b>\$1.5</b>	<b>\$2.1</b>	<b>\$2.7</b>	<b>\$4.0</b>	<b>\$4.0</b>

Table A-9  
ESTIMATED UTILITY TAX

1998/1999 Budget  
For Utility Tax \$3,100,000

Land Use	Tax per Unit/Net Acre	Utility Tax Revenue (000's)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	\$21.25	\$5.3	\$11.7	\$16.1	\$20.2	\$22.6	\$22.6
Total Multi Family Units	\$21.25	\$1.1	\$2.1	\$3.4	\$5.7	\$7.0	\$7.0
Total Retail Commercial Acres	\$1,035.00	\$0.0	\$0.0	\$0.0	\$0.0	\$12.1	\$12.1
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$6.4</b>	<b>\$13.8</b>	<b>\$19.5</b>	<b>\$25.9</b>	<b>\$41.7</b>	<b>\$41.7</b>

Table A-10  
ESTIMATED BUSINESS LICENSE REVENUE

1998/1999 Budget  
For Business License Tax \$750,000

Land Use	Average Business License Fee Per Acre	Business License Fees (000's)					
		2001	2002	2003	2004	2005	2006
Total Retail Commercial Acres	\$535.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.3	\$6.3
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$6.3</b>	<b>\$6.3</b>

Table A-11  
ESTIMATED MISCELLANEOUS REVENUES

1998/1999 Budget	Allocation of Budget			Per House Unit	Per Comm Acre					
	Total Budget	Residential	Commercial			2001	2002	2003	2004	2005
Animal License	\$55,000	\$55,000		\$1.02						
Bicycle License	\$900	\$900		\$0.02						
Motor Vehicle Licenses	\$6,900,000	\$6,900,000		\$127.85						
State HOPTR	\$185,000	\$185,000		\$3.43						
Gas Tax	\$2,444,500	\$2,138,938	\$232,228	\$39.63	\$212.5					
Library Fines	\$199,050	\$199,050		\$3.69						
Parking Citations	\$190,000	\$142,500	\$36,100	\$2.64	\$33.0					
Charges for Current Services										
Swimming Pools	\$146,850	\$146,850		\$2.72						
Recreation Program	\$16,500	\$16,500		\$0.31						
Park Reservation Fees	\$38,000	\$38,000		\$0.70						
Other Park & Recr Fees	\$40,260	\$40,260		\$0.75						
Total Misc Revenue	\$10,216,060	\$9,862,998	\$268,328							
	Per Unit/Acre			\$182.76	\$245.50					
Land Use	Per Unit/Acre	Miscellaneous Revenue (000's)								
Total Single Family Units	\$182.76	\$45.7	\$100.5	\$138.2	\$173.4	\$194.3	\$194.3			
Total Multi Family Units	\$182.76	\$9.1	\$18.3	\$29.2	\$49.0	\$60.5	\$60.5			
Total Retail Commercial Acres	\$245.50	\$0.0	\$0.0	\$0.0	\$0.0	\$2.9	\$2.9			
<b>TOTAL SAN MIGUEL RANCH</b>		<b>\$54.8</b>	<b>\$118.8</b>	<b>\$167.4</b>	<b>\$222.4</b>	<b>\$257.6</b>	<b>\$257.6</b>			

Table A-12  
ESTIMATED EXPENDITURES FOR GOVERNMENT ADMINISTRATION

1998/1999 Budget For  
Government Administration \$11,925,269

Allocated  
Cost

Land Use  
All Land Uses 22.2% of total line operations

Land Use	Government Administration (000's)					
	2001	2002	2003	2004	2005	2006
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$39.8</b>	<b>\$94.1</b>	<b>\$137.2</b>	<b>\$185.0</b>	<b>\$225.6</b>	<b>\$229.3</b>

Table A-13  
ESTIMATED PLANNING COST  
(Non-Current)

1998/1999 Budget For  
Planning Expenditures \$875,336

Cost per Unit  
/Net Acre

Residential \$12.81  
Commercial \$104.07

Land Use	Planning Costs (000 s)					
	2001	2002	2003	2004	2005	2006
Total Single Family Units	\$3.2	\$7.0	\$9.7	\$12.2	\$13.6	\$13.6
Total Multi Family Units	\$0.6	\$1.3	\$2.0	\$3.4	\$4.2	\$4.2
Total Retail Commercial Acres	\$0.0	\$0.0	\$0.0	\$0.0	\$1.2	\$1.2
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$3.8</b>	<b>\$8.3</b>	<b>\$11.7</b>	<b>\$15.6</b>	<b>\$19.1</b>	<b>\$19.1</b>

Table A-14  
ESTIMATED POLICE PROTECTION COST

1998/1999 Budget For  
Police Expenditures \$21,971,976

Cost per  
Unit/Net Acre

Residential \$296.38  
Commercial \$4,622

Land Use	Police Protection Costs (000 s)					
	2001	2002	2003	2004	2005	2006
Total Single Family Units	\$74.1	\$163.0	\$224.1	\$281.3	\$315.1	\$315.1
Total Multi Family Units	\$14.8	\$29.6	\$47.4	\$79.4	\$98.1	\$98.1
Total Retail Commercial Acres	\$0.0	\$0.0	\$0.0	\$0.0	\$54.1	\$54.1
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$88.9</b>	<b>\$192.6</b>	<b>\$271.5</b>	<b>\$360.7</b>	<b>\$467.2</b>	<b>\$467.2</b>

Table A-15  
ESTIMATED FIRE PROTECTION COST

1998/1999 Budget For  
Fire Expenditures \$7,734,890

Cost per Unit  
/Net Acre

Residential \$120.68  
Commercial \$1.012

Fire Protection Costs (000's)

Land Use	2001	2002	2003	2004	2005	2006
Total Single Family Units	\$30.2	\$66.4	\$91.2	\$114.5	\$128.3	\$128.3
Total Multi Family Units	\$6.0	\$12.1	\$19.3	\$32.3	\$39.9	\$39.9
Total Retail Commercial Acres	\$0.0	\$0.0	\$0.0	\$0.0	\$11.8	\$11.8
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$36.2</b>	<b>\$78.4</b>	<b>\$110.5</b>	<b>\$146.9</b>	<b>\$180.1</b>	<b>\$180.1</b>

Table A-16  
ESTIMATED LIBRARY COST

1998/1999 Budget For  
Library Expenditures \$3,986,645

Cost per  
Unit/Net Acre

Residential \$73.87  
Commercial \$0

Library Costs (000's)

Land Use	2001	2002	2003	2004	2005	2006
Total Single Family Units	\$18.5	\$40.6	\$55.8	\$70.1	\$78.5	\$78.5
Total Multi Family Units	\$3.7	\$7.4	\$11.8	\$19.8	\$24.5	\$24.5
Total Retail Commercial Acres	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$22.2</b>	<b>\$48.0</b>	<b>\$67.7</b>	<b>\$89.9</b>	<b>\$103.0</b>	<b>\$103.0</b>



Table A-17  
ESTIMATED EXPENDITURES FOR PUBLIC WORKS

1998/1999 Budget For Public Works	\$10,110,638	Cost Allocation Unit/Acre	
		Residential	Commercial
<b>Operations</b>			
Administration	\$452,644	\$6.63	\$53.84
Traffic Operations	\$564,554	\$725.65	per lane mile
Street Maintenance	\$1,032,375	\$1,326.96	per lane mile (1)
Street Sweeping	\$203,284	\$261.29	per lane mile
Street Tree Maintenance	\$449,959	\$1,401.74	per street mile
Wastewater Maintenance	\$1,739,502		self supporting
Wastewater Lift Station Maint.	\$427,705		self supporting
<b>Engineering</b>			
Traffic Signal Maint.			
Signal costs	\$389,035	\$2,683	per signal
Street light costs	\$594,000	\$100	per street light
Transit Service Operations	\$180,655		self supporting
Environmental Mgmt	\$164,207		self supporting

1) Estimated at 20% in year 5 40% in year 6 to 100% in year 9

	Public Works Expenditures (000's)						
	2001	2002	2003	2004	2005	2006	TOTAL
Public Street Lane Miles *	5.6	12.2	17.1	22.8	26.1	26.1	26.1
Public Street Miles *	2.3	5.0	7.0	9.3	10.7	10.7	10.7
Street Lights**	35	75	106	140	162	162	162
Signals**	0	1	2	3	4	4	4
Operations Admin	\$ 2.0	\$ 4.3	\$ 6.1	\$ 8.1	\$ 9.9	\$ 9.9	
Street Mile Costs	\$ 3.2	\$ 7.0	\$ 9.8	\$ 13.0	\$ 15.0	\$ 15.0	
Lane Mile Costs	\$ 5.5	\$ 12.0	\$ 16.9	\$ 22.5	\$ 25.8	\$ 25.8	
Street Maint ***	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16.9	
Signal/street light costs	\$ 3.5	\$ 10.2	\$ 16.0	\$ 22.0	\$ 26.9	\$ 26.9	
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$ 14.2</b>	<b>\$ 33.5</b>	<b>\$ 48.7</b>	<b>\$ 65.7</b>	<b>\$ 77.6</b>	<b>\$ 94.5</b>	

\* The phasing of streets were estimated based on the estimated absorption of residential units

\*\* The phasing of signals and street lights were based on the phasing of streets

\*\*\*Represent a 15 year annual average during the period from 2001 to 2015

Table A-18  
ESTIMATED EXPENDITURES FOR PARK AND RECREATIONS

Estimated Park Development Schedule	Park Acres					
	2001	2002	2003	2004	2005	2006
	0	3 9	7 8	11 7	12 45	12 45

1998/1999 Budget For		Cost Allocation Unit/Acre
<b>Park &amp; Recreation</b>	<b>\$5,644,290</b>	
Parks Recreation and Open Space	\$5,644,290	
Parks	\$3,127,682	\$8.399 per park acre
Administration - Parks	\$374,260	
Administration - Open Space	\$334,552	provided by lighting and landscape district
Maintenance	\$2,418,870	
General	\$2,147,445	
Marina Park	\$271,425	Not Applicable
Recreation	\$2,502,606	\$46.37 per housing unit
Athletics	\$260,720	\$4.83 per housing unit
Aquatics	\$516,172	\$9.56 per housing unit
Senior Citizens	\$288,839	\$5.35 per housing unit
General	\$1,062,615	\$19.69 per housing unit
Administration- Recreation	\$374,260	\$6.93 per housing unit

	Park and Receptions(000's)					
	2001	2002	2003	2004	2005	2006
Park	\$0.0	\$32.8	\$65.5	\$98.3	\$104.6	\$104.6
Recreation	\$13.9	\$30.1	\$42.5	\$56.4	\$64.6	\$64.6
<b>TOTAL SAN MIGUEL RANCH</b>	<b>\$13.9</b>	<b>\$62.9</b>	<b>\$108.0</b>	<b>\$154.7</b>	<b>\$169.2</b>	<b>\$169.2</b>

# **Appendix B**

VISTA MOTHER MIGUEL FISCAL IMPACT

Table B-1  
ABSORPTION SCHEDULE BY LAND USE

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Developed and Occupied Units/Net Acres						TOTAL
		2001	2002	2003	2004	2005	2006	
Total Single Family Units	\$265	0	43	43	43	43	43	43

Table B-2  
ASSESSED VALUE

Land Use	Per Unit/ Net Acre Value (000's)	Cumulative Assessed Value(000's)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	\$265	\$ -	\$ 11,395	\$ 11,395	\$ 11,395	\$ 11,395	\$ 11,395

Table B-3  
Secured Property Tax Revenue (000s)

SECURED PROPERTY TAX REVENUES		2001	2002	2003	2004	2005	2006
Total Assessed Values	\$	-	\$ 11,395	\$ 11,395	\$ 11,395	\$ 11,395	\$ 11,395
Tax Rate	1.0%	\$0	\$114	\$114	\$114	\$114	\$114
<b>TOTAL CHULA VISTA SHARE*</b>	<b>8.6%</b>	<b>\$0.0</b>	<b>\$9.8</b>	<b>\$9.8</b>	<b>\$9.8</b>	<b>\$9.8</b>	<b>\$9.8</b>

Table B-4  
Unsecured Property Tax Revenue (000's)

UNSECURED PROPERTY TAX	Tax Per Acre	2001	2002	2003	2004	2005	2006
Total Single Family Units		\$0	\$0	\$0	\$0	\$0	\$0

\* Derived from discussions with the County Assessors Office and the City of Chula Vista (According to the Master Tax Agreement between the City of Chula Vista and the County 41% of the County's general, library and flood control funds would go to the city )

Table B-5  
ESTIMATED PROPERTY TRANSFER TAX REVENUES

Single Family Resale Ratio 0.00007857

Product	Resale Rate (Years)	Property Transfer Tax (000s)					
		2001	2002	2003	2004	2005	2006
Total Single Family Units	7	\$0.0	\$0.9	\$0.9	\$0.9	\$0.9	\$0.9



Table B-11  
ESTIMATED MISCELLANEOUS REVENUES

1998/1999 Budget	Allocation of Budget			Per House Unit	Per Comm Acre
	Total Budget	Residential	Commercial		
Animal License	\$55,000	\$55,000		\$1.02	
Bicycle License	\$900	\$900		\$0.02	
Motor Vehicle Licenses	\$6,900,000	\$6,900,000		\$127.85	
State HOPTR	\$185,000	\$185,000		\$3.43	
Gas Tax	\$2,444,500	\$2,138,938	NA	\$39.63	NA
Library Fines	\$199,050	\$199,050		\$3.69	
Parking Citations	\$190,000	\$142,500	NA	\$2.64	NA
Charges for Current Services					
Swimming Pools	\$146,850	\$146,850		\$2.72	
Recreation Program	\$16,500	\$16,500		\$0.31	
Park Reservation Fees	\$38,000	\$38,000		\$0.70	
Other Park & Recr. Fees	\$40,260	\$40,260		\$0.75	
<b>Total Misc Revenue</b>	<b>\$10,216,060</b>	<b>\$9,862,998</b>	<b>\$0</b>	<b>\$182.76</b>	<b>\$0.00</b>
	Per Unit/Acre				

Land Use	Per Unit/Acre	Miscellaneous Revenue (000's)					
		2001	2002	2003	2004	2005	2006
<b>Total Single Family Units</b>	<b>\$182.76</b>	<b>\$0.0</b>	<b>\$7.9</b>	<b>\$7.9</b>	<b>\$7.9</b>	<b>\$7.9</b>	<b>\$7.9</b>

Table B-12  
ESTIMATED EXPENDITURES FOR GOVERNMENT ADMINISTRATION

1998/1999 Budget For  
Government Administration \$11,925,269

Land Use Allocated Cost  
All Land Uses 22.2% of total line operations

Land Use	Government Administration (000's)					
	2001	2002	2003	2004	2005	2006
<b>TOTAL VISTA MOTHER MIGUEL</b>	<b>\$0.0</b>	<b>\$6.3</b>	<b>\$6.3</b>	<b>\$6.3</b>	<b>\$6.3</b>	<b>\$6.4</b>

Table B-13  
ESTIMATED PLANNING COST  
(Non-Current)

1998/1999 Budget For  
Planning Expenditures \$875,336

Residential Cost per Unit /Net Acre  
\$12.81

Land Use	Planning Costs (000's)					
	2001	2002	2003	2004	2005	2006
<b>Total Single Family Units</b>	<b>\$0.0</b>	<b>\$0.6</b>	<b>\$0.6</b>	<b>\$0.6</b>	<b>\$0.6</b>	<b>\$0.6</b>

Table B-14  
ESTIMATED POLICE PROTECTION COST

1998/1999 Budget For  
Police Expenditures \$21,971,976

Residential Cost per  
Unit/Net Acre  
\$296.38

Land Use	Police Protection Costs (000's)					
	2001	2002	2003	2004	2005	2006
<b>Total Single Family Units</b>	<b>\$0.0</b>	<b>\$12.7</b>	<b>\$12.7</b>	<b>\$12.7</b>	<b>\$12.7</b>	<b>\$12.7</b>

Table B-15  
ESTIMATED FIRE PROTECTION COST

1998/1999 Budget For  
Fire Expenditures \$7,734,890

Residential Cost per Unit  
/Net Acre  
\$120.68

Land Use	Fire Protection Costs (000's)					
	2001	2002	2003	2004	2005	2006
<b>Total Single Family Units</b>	<b>\$0.0</b>	<b>\$5.2</b>	<b>\$5.2</b>	<b>\$5.2</b>	<b>\$5.2</b>	<b>\$5.2</b>

Table B-16  
ESTIMATED LIBRARY COST

1998/1999 Budget For  
Library Expenditures \$3,986,645

Residential Cost per  
Unit/Net Acre  
\$73.87

Land Use	Library Costs (000's)					
	2001	2002	2003	2004	2005	2006
<b>Total Single Family Units</b>	<b>\$0.0</b>	<b>\$3.2</b>	<b>\$3.2</b>	<b>\$3.2</b>	<b>\$3.2</b>	<b>\$3.2</b>

Table B-17  
ESTIMATED EXPENDITURES FOR PUBLIC WORKS

1998/1999 Budget For Public Works	\$10,110,638	Cost Allocation Unit/Acre	
		Residential	Commercial
<b>Operations</b>			
Administration	\$452,644	\$6.63	\$53.84
Traffic Operations	\$564,554	\$725.65	per lane mile
Street Maintenance	\$1,032,375	\$1,326.96	per lane mile (1)
Street Sweeping	\$203,284	\$261.29	per lane mile
Street Tree Maintenance	\$449,959	\$1,401.74	per street mile
Wastewater Maintenance	\$1,739,502	self supporting	
Wastewater Lift Station Maint	\$427,705	self supporting	
<b>Engineering</b>			
Traffic Signal Maint			
Signal costs	\$389,035	\$2,683	per signal
Street light costs	\$594,000	\$100	per street light
Transit Service Operations	\$180,655	self supporting	
Environmental Mgmt	\$164,207	self supporting	

1) Estimated at 20% in year 5, 40% in year 6, to 100% in year 9

	Public Works Expenditures (000's)						
	2001	2002	2003	2004	2005	2006	TOTAL
Public Street Lane Miles *	0.0	0.4	0.4	0.4	0.4	0.4	0.4
Public Street Miles *	0.0	0.2	0.2	0.2	0.2	0.2	0.2
Street Lights**	0	4	4	4	4	4	4
Signals**	0	0	0	0	0	0	0
Operations Admin	\$ -	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3
Street Mile Costs	\$ -	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3	\$ 0.3
Lane Mile Costs	\$ -	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4
Street Maint ***	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.3
Signal/street light costs	\$ -	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4	\$ 0.4
<b>TOTAL VISTA MOTHER MIGUEL</b>	<b>\$ -</b>	<b>\$ 1.4</b>	<b>\$ 1.4</b>	<b>\$ 1.4</b>	<b>\$ 1.4</b>	<b>\$ 1.4</b>	<b>\$ 1.7</b>

\* The phasing of streets were estimated based on the estimated absorption of residential units

\*\* The phasing of signals and street lights were based on the phasing of streets

\*\*\*Represent a 15 year annual average during the period from 2001 to 2015



Table B-18  
ESTIMATED EXPENDITURES FOR PARK AND RECREATIONS

Estimated Park Development Schedule	Park Acres					
	2001	2002	2003	2004	2005	2006
	0	0.4	0.4	0.4	0.4	0.4
1998/1999 Budget For						
Park & Recreation	\$5,644,290	Cost Allocation Unit/Acre				
Parks Recreation and Open Space	\$5,644,290					
Parks	\$3,127,682	\$8,399 per park acre				
Administration - Parks	\$374,260					
Administration - Open Space	\$334,552	provided by lighting and landscape district				
Maintenance	\$2,418,870					
General	\$2,147,445					
Marina Park	\$271,425	Not Applicable				
Recreation	\$2,502,606	\$46.37 per housing unit				
Athletics	\$260,720	\$4.83 per housing unit				
Aquatics	\$516,172	\$9.56 per housing unit				
Senior Citizens	\$288,839	\$5.35 per housing unit				
General	\$1,062,615	\$19.69 per housing unit				
Administration- Recreation	\$374,260	\$6.93 per housing unit				
Park and Recreations(000's)						
	2001	2002	2003	2004	2005	2006
Park	\$0.0	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4
Recreation	\$0.0	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0
<b>TOTAL VISTA MOTHER MIGUEL</b>	<b>\$0.0</b>	<b>\$5.4</b>	<b>\$5.4</b>	<b>\$5.4</b>	<b>\$5.4</b>	<b>\$5.4</b>

# **SAN MIGUEL RANCH**

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## *Sectional Planning Area Plan*

### **Volume 5 Affordable Housing Program**

***Project Applicant:***

Trimark Pacific San Miguel, LLC  
85 Argonaut, Suite 205  
Aliso Viejo, CA 92656

***Prepared By:***

The Lightfoot Planning Group  
702 Civic Center Drive  
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**Approved**

**October 19, 1999**  
Resolution No. 19631

***San Miguel Ranch SPA Plan  
Volume 5  
Affordable Housing Program***

***TABLE of CONTENTS***

<b><i>SECTIONS</i></b>	<b><i>PAGE</i></b>
1.0 Introduction .....	1
2.0 Definitions .....	2
3.0 City of Chula Vista Inclusionary Housing Needs .....	3
4.0 San Miguel Ranch Affordable Housing Program .....	4
4.1 Requirements .....	4
4.2 Site Selection Criteria .....	4
4.3 Building Permit Triggers .....	4
4.4 Low Income Housing .....	5
4.5 Moderate Income Housing .....	5
4.6 Subsidies, Incentives and Financing Mechanisms .....	6
4.7 Compliance Reporting .....	6
4.8 Affirmative Marketing Plan .....	8

<b><i>EXHIBITS</i></b>	<b><i>PAGE</i></b>
Exhibit 1 Affordable Housing Locations within San Miguel Ranch .....	10
Exhibit 2 Supplemental Rental Application .....	11
Exhibit 3A Owner's Certification .....	13
Exhibit 3B Semi-Annual Report .....	14
Exhibit 3C Semi Annual Report .....	15
Exhibit 4 San Miguel Ranch Homebuyer's Qualifying Form .....	17
Exhibit 5 City of Chula Vista Equal Opportunity Requirements for the Low/Moderate Income Housing Affirmative Marketing Plans .....	18

# AFFORDABLE HOUSING PROGRAM FOR SAN MIGUEL RANCH

## ***1.0 Introduction***

The City of Chula Vista ("City") along with all other cities in California, is required by state law to have a Housing Element as a component of its General Plan. The Housing Element describes the housing needs of the community and the responses necessary to fulfill them.

The City of Chula Vista Housing Element of 1991 contains numerous objectives, policies and related action programs to accomplish these objectives. Key among these is the affordable housing policy which requires that residential development with fifty (50) or more dwelling units provide a minimum of 10% of the total dwelling units for low and moderate income households, one half of these units (5% of the total project) being designated for low income and the remaining five percent for moderate income households.

In order to guarantee the provision of Affordable Housing opportunities, the City requires that a specific Affordable Housing Program ("AHP") and agreement which are consistent with the Housing Element of the Chula Vista General Plan, be prepared and signed by the Developer as part of the SPA Plan and Tentative Map, respectively. This Affordable Housing Program is intended to delineate how, when and where the units would be provided, intended subsidies, income rent restrictions and methods to verify compliance.

The San Miguel Ranch Affordable Housing Program is consistent with the City's affordable housing policies. A total of 1,394 housing units will be developed at San Miguel Ranch and those units are expected to be developed in four phases. Ten percent of those units will be affordable for low or moderate income families. The total numbers of units and the proposed schedule for construction of the affordable housing units are summarized in Table 1-1. The provision of affordable housing will begin during Phase I of the San Miguel Ranch project with the production of twenty-five (25) units that will be affordable to families of moderate income. Construction of low income units will begin during Phase II. All low and moderate income units will be completed by the end of Phase IV. However, the Developer will consider the construction of all low income units during Phase II in either Planning Areas A or B. Detailed schedules and building permit triggers for construction of affordable units in relation to other market rate units, will be established through the initial affordable housing agreement required to be entered into prior to approval of the first Final Subdivision Map.

All low income housing units (70) will be located in Planning Areas A and/or B. Moderate income housing (70 units) may be located within Planning Areas A, B, C, D and/or E. See Exhibit 1 for a site plan detailing these locations. All low and moderate income sites are in close proximity to major transportation corridors and public transportation facilities.

Table 1-1 Unit Numbers and Schedule			
Project Phase	Total Units in Phase	Low Income Housing Units to be provided during Phase*	Moderate Income Housing Units to be provided during Phase*
Phase I	471	0	25
Phase II	475	48	25
Phase III	319	0	0
Phase IV	129	22	20
Buildout	1394	70	70

\* The schedule for providing affordable units is determined based on the phasing of the overall project, although the units provided will not necessarily be located within the boundaries of that phase.

## 2.0 Definitions

To aid in understanding this AHP, this section contains definitions of important terms and concepts.

**Affirmative Marketing Plan** - An outline that details actions the Developer will take to provide information and otherwise attract eligible persons in this housing market area to the available housing without regard to race, sex, sexual orientation, marital status, familial status, color, religion, national origin, ancestry, handicap, age, or any other category which may be defined by law.

**Affordable Rental Rate** - The rent to be charged to a low income household shall not exceed the Fair Market Rents (FMR's) set by HUD on an annual basis, based on the number of bedrooms within the unit. It includes shelter rent and the cost of utilities, except telephones. HUD sets the FMR's at the 40th percentile distribution of standard quality rental housing units. The 40th percentile rent is drawn from the distribution of rents of units which are occupied by recent movers (renter households who moved into their units within the past 15 months). Usage of FMR's assures each household pays equal proportionate share of rent. There are no minimum rent

requirements. In some cases, the rental rate could be more restrictive depending on the financing mechanism used to produce affordable housing. The Fiscal Year 1998 FMR's are as follows:

<u>Metropolitan Statistical Area</u>	<u>Eff</u>	<u>1-bd</u>	<u>2-bd</u>	<u>3-bd</u>	<u>4-bd</u>
San Diego, CA	\$510	\$583	\$729	\$,1014	\$1,196
<i>(note: rents include utility allowance)</i>					

**Developer** - This includes the original developer of affordable housing units, their successors and assigns in interest.

**Low Income Household** - A household of persons who claim primary residency at the same unit with combined incomes that do not exceed 80% of the area median income (adjusted annually) based on household size. Household size is calculated by the number of persons residing at the same unit as their primary residency. For the purpose of calculating income, HUD regulation 24CFR 813.106 provides the guidelines to be used as presently set forth and amended from time to time.

**Moderate Income Household** - A household of persons who claim primary residency at the same unit with combined incomes between 80% to 120% of the area median income (adjusted annually) based on household size. Household size is calculated by the number of persons residing at the same unit as their primary residency. For the purpose of calculating income, HUD regulation 24CFR 813.106 provide the guidelines to be used as presently set forth and amended from time to time.

**Qualified Term** - That length of time the rental unit must remain affordable to low income households.

**San Diego Median Income** - The San Diego County area median income level as determined from time to time by the Department of Housing and Urban Development, United States Government, based on household size.

**Subsidized Financing** - Any financing provided by any public agency specifically for the development and construction of low and moderate income housing units.

### ***3.0 City of Chula Vista Inclusionary Housing Needs***

As the State Regional Needs Assessment indicates, housing for large families is the single greatest need in the Chula Vista community. A recent survey of Chula Vista showed that within a three mile radius of Cordova in Rancho del Rey, (an affordable housing development on the east side of Chula Vista) there are 1,334 market rate rentals of which 110 are three bedrooms and zero are four bedrooms. Only 8.2% of

the market rate rentals are three bedrooms. Given that 14% of the households in Chula Vista (according to the 1990 Census) are large families (of five or more persons), and assuming the desire for equal distribution of these families throughout the city, the private market is not producing adequate rental housing for large families (three or more bedroom units) on the east side. Thus, should the City of Chula Vista choose to participate in financing affordable rental housing to families of low income, the City has indicated a priority preference to invest in rental affordable developments with large units.

#### **4.0 *San Miguel Ranch Affordable Housing Program***

##### **4.1 *Requirements***

A total of 1,394 residential housing units are currently planned for San Miguel Ranch. The project is required to provide a minimum of 10% of the approved housing units (140) as affordable housing. One-half of those units (70) shall be provided as low income housing, and one-half (70) will be provided as housing for moderate income households. The number of affordable units and low income housing units may be adjusted based upon the actual number of residential housing units which are constructed in the San Miguel Ranch project.

##### **4.2 *Site Selection Criteria***

The affordable housing sites were selected using the following selection criteria which is prescribed in the City of Chula Vista General Plan:

- Units are located near proposed public transit facilities, including bus routes along East "H" Street, Proctor Valley Road and Mount Miguel Road.
- Units are located within walking distance of future retail, commercial and support services along East "H" Street and Mount Miguel Road, as well as public park facilities and schools.
- Every effort has been made to make targeted sites for the low and moderate income housing units compatible with adjacent residential units (i.e., densities, design, etc.).

##### **4.3 *Building Permit Triggers***

There are a number of development steps associated with the construction of affordable units, and the Affordable Housing Agreement required prior to the first Final Subdivision Map will establish milestones to assure that the provision of affordable housing is being planned and implemented concurrent with development of the San Miguel Ranch community. These milestones are tied to the cumulative number of building permits issued for the overall project.

#### ***4.4 Low Income Housing***

##### ***Low Income Housing Sites***

The location of low income housing units within the San Miguel Ranch project will be within Planning Areas A and/or B (see Exhibit 1). The low income housing units are currently anticipated to consist of rental units. For rental units, the location of the designated low income units may change over time (to be referred to as “floating units”) as long as the total number of affordable units remains constant, and as long as the substituted units are comparable in terms of size, features and number of bedrooms, as determined by the Director of Community Development Department.

##### ***Implementation Schedule***

A total of 70 low income housing units will be completed in San Miguel Ranch. Of these, forty-eight (48) units will be completed prior to or concurrent with the completion of Phase II, and twenty-two (22) units will be completed prior to or concurrent with the completion of Phase IV. There are several conditions which may affect the location and timing for delivering low income units. The timing for development of Planning Area A is constrained by the need to grade this site in conjunction with the adjacent commercial lot, and is thus affected by the market for such commercial uses. However, funding sources and options may be increased if all the low income units are provided within Planning Area A and this may make it desirable to develop Area A earlier than Phase IV. These market conditions and funding options will need to be considered in the final determination of implementation.

#### ***4.5 Moderate Income Housing***

##### ***Moderate Income Housing Sites***

Planning Areas A, B, C, D and E have been selected as the sites for moderate income housing units within the San Miguel Ranch project. The location of these planning areas are shown on Exhibit 1. The moderate income housing units are currently planned to consist of for-sale or rental housing. Should any of the moderate income units be designated as rental units, then the location of the units may change over time (to be referred to as “floating units”) as long as the total number of affordable units remains constant and as long as the substituted units are comparable in terms of size, features and number of bedrooms, as determined by the Director of Community Development Department.

##### ***Implementation Schedule***

A total of 70 moderate income housing units will be completed in San Miguel Ranch. Twenty-five (25) units will be completed prior to or concurrent with the completion of Phase I, twenty-five (25) units will be completed prior to or concurrent with the completion of Phase II and twenty (20) units will be completed prior to or concurrent with the completion of Phase IV.



#### **4.6 Subsidies, Incentives and Financing Mechanisms**

In the event Developer obtains subsidized financing, the Qualified Term shall be dictated by the selected funding source. If the selected funding has no qualified term, it shall be fifty-five (55) years. In the event that no subsidized financing is obtained, the Qualified Term shall be thirty (30) years from the date of the completion of the final inspection for each structure.

Below is a list of some of the potential funding mechanisms that the Developer may use for affordable housing.

- Low Income Housing Tax Credits (LIHTC) - Statewide Competition
- Housing Bonds - State
- Density Bonus - City
- Mortgage Credit Certificates - City
- Local Initiative Support Corporation (LISC) - Nonprofit Only
- Redevelopment Low and Moderate Income Fund - City
- HOME - City, County, and State
- Other Public Financing - State and Federal

Some of these mechanisms require approvals from, or allocations by, state agencies, including, but not limited to, local, state and federal subsidies and City bonuses, planning, and design and development techniques and standards which reduce the cost of providing affordable housing (collectively, the "Cost Reducing Mechanisms") Developer will, at its discretion, pursue one or more of these cost reducing mechanisms, recognizing that City is unable to guarantee the availability of these mechanisms.

#### **4.7 Compliance Reporting**

All Compliance Reports shall be submitted to the City of Chula Vista Community Development Department and an independent trustee hired by the Developer to monitor the Developer's compliance. The funding sources used will dictate and supersede the terms described in the following two subsections. The terms below only apply if funding sources do not otherwise specify such affordability requirements.

##### ***Rental Units' Compliance Packet and Audit***

- A. Should a Developer seek approval by the City to credit a tenant toward its low income housing obligation, the Developer must give the City, at a minimum, a compliance packet including the following:
  - 1. Supplemental Rental Application - Exhibit 2
  - 2. Semi-Annual Report - Exhibit 3-A, 3-B, 3-C
  - 3. Authorization to Release Information by Purchaser
  - 4. Acknowledgment that the Information is for City's Reporting and Administration Use Only

Developer shall not be required to perform any extraordinary investigation or verification regarding such information other than Developer's usual and customary means of income verification. Developer shall retain the Supplemental Rental Application and any supporting documents for a period of at least two (2) years after the applicant ceases to occupy a low income housing unit.

- B. A household occupying a designated low income unit whose annual income increases subsequent to occupying said unit (referred to as "over income household") and thus exceeds the 80% of area median income, need not vacate the apartment. However, at the Developer's discretion (or as may be dictated by the associated financing), this over income household's monthly rent (including utilities) may be increased to the market rate. Regardless of a rent increase, the Developer can no longer credit this over income household toward its 5% low income requirement and is obligated to replace this unit by renting the next comparable unit to a low income household pursuant to the paragraph below. Thus, the Developer shall ensure appropriate language is included in the lease requiring tenant to provide income information biannually and acknowledge that should their income increase, the household may be subject to a higher rent. Adjusted monthly incomes can be calculated using rules according to the HUD Handbook 4350.3 Occupancy Requirements for HUD Subsidized Multifamily Housing.

The location of the designated units may change over time (to be referred to as "floating units") as long as the total number of affordable units remains constant and as long as the substituted units are comparable in terms of size, features, and number of bedrooms, as determined by the Director of Community Development. If the over income household does not vacate the unit, the Developer must assure that when the next comparable apartment becomes vacant, the newly available unit must be rented to a low income household, as a floating unit, to replace the previously designated unit no longer housing a low income household. If the over income household chooses to leave, the vacated unit retains its low income unit designation.

If a residential apartment complex is designated as 100% low income, the over income household will not be required to vacate, if it pays the increased rent, and the unit will not be replaced with a "floating unit." When the over income household vacates the unit, the unit retains its low income unit designation.

- C. If the City determines that an outside audit is necessary to verify the accuracy of the submitted rent roll, then on a basis no more frequently than once a year, it may require such an audit at the expense of

Developer. In such an event, within ten (10) days after delivery of the City's written request for such outside audit, Developer shall deliver to the City, the names of three (3) certified public accountants doing business in the Metropolitan San Diego area. City will promptly deliver to Developer notice of approval by the City of one or more of said names.

The audit shall be completed by an approved certified public accountant, at Developer's sole cost and expense, within sixty (60) days after the delivery to Developer of City's approval. The certified public accountant shall promptly deliver a copy of the written audit to the City. Such audit shall be an audit of Developer's records, including the information supplied to Developer by the low income tenants. The auditor shall not be required to verify the accuracy of the information provided by the low income tenants.

#### ***Home Ownership Units' Compliance Packet***

Should Developer seek approval by the City to credit a home purchase toward its low and/or moderate income housing obligation, the Developer must give the City, at a minimum, a compliance packet including the following:

1. Copy of Settlement Sheet
2. Homebuyer's Qualifying Form - Exhibit 4
3. Authorization to Release Information by Purchaser
4. Acknowledgment that the Information is for City's Reporting and Administration Use Only

Developer shall not be required to perform any extraordinary investigation or verification regarding such information other than Developer's usual and customary means of income verification.

Developer may contact the City's Community Development Housing Division's Housing Coordinator to confirm the City's acceptance of the applicant as credit toward Developer's low and/or moderate income housing unit obligation. Developer may contact the City prior to the sale of the unit for consultation purposes if desired; however, approval will be given in writing within 10 days only after required documents are reviewed and accepted by the City.

#### ***4.8 Affirmative Marketing Plan***

Developer shall provide a marketing plan acceptable to the City, at the City's reasonable discretion, for proactively marketing the low and moderate income housing units to low and moderate income tenants and purchasers, respectively, at the time specified in the Implementation Schedules in Sections 1.4.4 and 1.4.5 above. Developer shall use good faith and reasonable best efforts to market the low and moderate income housing units to low and moderate income tenants and purchasers

according to the affirmative marketing plan. See Exhibit 5, attached hereto, for plan requirements.

The City will, in its discretion, use good faith and reasonable best efforts to assist Developer in marketing low and moderate income housing units to low and moderate income tenants and purchasers, obtaining the services of a third-party organization for such marketing efforts, processing the applications of prospective tenants and purchasers of low and moderate income housing units, and complying with the reporting requirements as required herein.

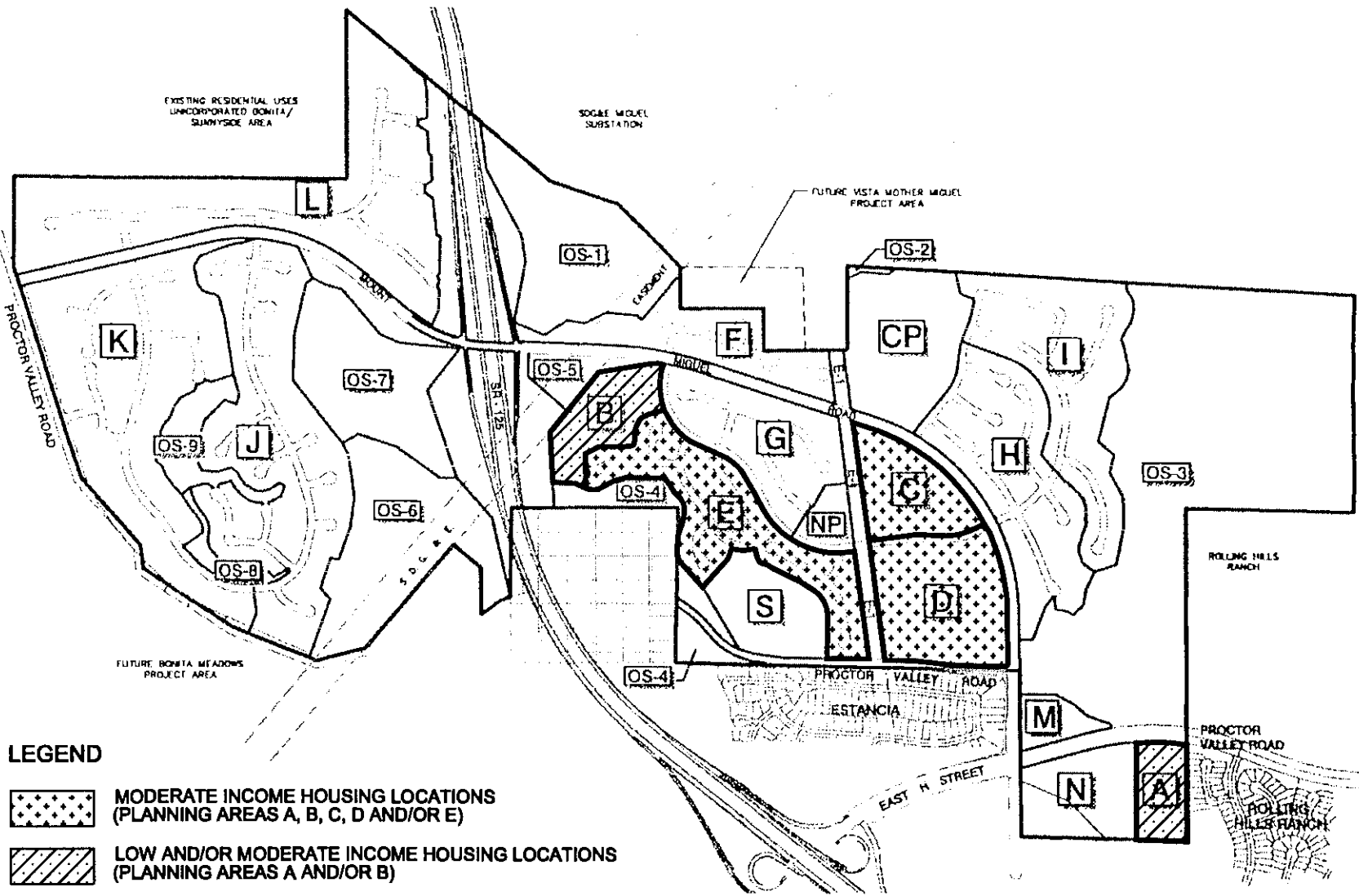


Exhibit 1

# San Miguel Ranch



## AFFORDABLE HOUSING LOCATIONS WITHIN SAN MIGUEL RANCH

Exhibit 2

Supplemental Rental Application

The rental unit for which you are applying has received governmental assistance under programs to encourage additional affordable housing. As a result, the unit carries a rent level restriction and is restricted to occupancy by low and moderate income households.

The information required on this form is necessary to determine your income eligibility to occupy the unit. You must report all household income. Information provided will be confidential and not subject to public disclosure pursuant to State Government Code Section 6254 (n).

6.15.1 Rental Unit Address \_\_\_\_\_

6.15.2 Applicant Name \_\_\_\_\_

6.15.3 Other Household Members \_\_\_\_\_

6.15.4 Total Current Annual Household Income from all Sources Including Assets:

TOTAL \$ \_\_\_\_\_

<u>Household Member</u>	<u>Income</u>	<u>Source</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6.15.5 Total Gross Annual Household Income shown on most recent Federal Tax Return from previous calendar year. (Attach copies of most recent Federal Tax returns from previous calendar year for all household members receiving income. Include other verification of income not appearing on tax forms.)

6.15.6 Monthly Rental Rate \$ \_\_\_\_\_

6.15.7 Number of Bedrooms \_\_\_\_\_

**Exhibit 2**

**Supplemental Rental Application  
(Cont.)**

**APPLICANT'S STATEMENT**

I certify under penalty of perjury that the foregoing information is true and correct to the best of my knowledge. I understand that any misrepresentation of the information contained herein may be cause for eviction.

Signature

Date

\_\_\_\_\_

\_\_\_\_\_

**OWNER'S STATEMENT**

Based on the foregoing information, I certify under penalty of perjury that the applicant is eligible to occupy this restricted low and moderate income housing unit. Eligibility is based on finding that the applicant's household's current annual income is \$\_\_\_\_\_ and does not exceed the current maximum household income of \$\_\_\_\_\_ allowed under the terms of an Affordable Housing Agreement with the City of Chula Vista regarding this residential rental development.

Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

**Exhibit 3-A**

**Owner's Certification**

I am the owner or owner's representative for an affordable housing development in the City of Chula Vista, which is bound by an Affordable Housing Agreement with the City.

I certify under penalty or perjury that the attached rent roll for affordable units at my project is true and correct to the best of my knowledge and complies with the terms and conditions stipulated in the Affordable Housing Agreement, or any agreement that implements the same, with the City of Chula Vista.

Name \_\_\_\_\_

Title \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_





Exhibit 3-C

Semi-Annual Report

CITY OF CHULA VISTA  
 INCOME AND MAXIMUM HOUSING EXPENSES FOR LOWER AND MODERATE-INCOME HOUSEHOLDS  
 (Based upon 1998 HUD Median Income Data Effective January 7, 1998)

NO. OF BDRMS	HOUSEHOLD SIZE	30%			40%			50%			60%			70%						
		ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%				
1 Bdrm	ONE	\$11,050	\$921	\$276	\$14,700	\$1,225	\$306	\$368	\$18,400	\$1,533	\$383	\$460	\$22,050	\$1,838	\$459	\$551	\$25,700	\$2,142	\$535	\$643
2 Bdrms	TWO	\$12,800	\$1,050	\$263	\$18,800	\$1,400	\$350	\$420	\$21,000	\$1,750	\$438	\$525	\$25,200	\$2,100	\$525	\$630	\$29,400	\$2,450	\$613	\$735
3 Bdrms	THREE	\$14,200	\$1,183	\$296	\$19,900	\$1,575	\$394	\$473	\$23,850	\$1,971	\$493	\$591	\$28,350	\$2,363	\$591	\$709	\$33,050	\$2,754	\$689	\$828
4 Bdrms	FOUR	\$15,750	\$1,313	\$328	\$21,000	\$1,750	\$436	\$525	\$26,250	\$2,168	\$547	\$656	\$31,500	\$2,625	\$656	\$788	\$36,750	\$3,063	\$766	\$919
	FIVE	\$17,000	\$1,417	\$354	\$22,700	\$1,882	\$473	\$568	\$28,350	\$2,363	\$591	\$709	\$34,000	\$2,833	\$708	\$850	\$39,700	\$3,308	\$827	\$993
	SIX	\$16,250	\$1,521	\$380	\$24,350	\$2,029	\$507	\$609	\$30,450	\$2,538	\$634	\$761	\$36,550	\$3,046	\$761	\$914	\$42,650	\$3,554	\$889	\$1,066
	SEVEN	\$19,550	\$1,629	\$407	\$26,050	\$2,171	\$543	\$651	\$32,550	\$2,713	\$678	\$814	\$39,050	\$3,254	\$814	\$976	\$45,550	\$3,796	\$949	\$1,139
	EIGHT	\$20,800	\$1,733	\$433	\$27,700	\$2,308	\$577	\$693	\$34,650	\$2,888	\$722	\$866	\$41,600	\$3,467	\$867	\$1,040	\$48,500	\$4,042	\$1,010	\$1,213

NO. OF BDRMS	HOUSEHOLD SIZE	80%			90%			100%			110%			120%						
		ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%	ANNUAL INCOME	MONTHLY INCOME	25%				
1 Bdrm	ONE	\$29,400	\$2,450	\$613	\$33,050	\$2,754	\$689	\$828	\$36,750	\$3,063	\$766	\$919	\$40,400	\$3,367	\$842	\$1,010	\$44,100	\$3,675	\$919	\$1,103
2 Bdrms	TWO	\$33,600	\$2,800	\$700	\$37,800	\$3,150	\$788	\$945	\$42,000	\$3,500	\$875	\$1,050	\$46,200	\$3,850	\$963	\$1,155	\$50,400	\$4,200	\$1,050	\$1,260
3 Bdrms	THREE	\$37,800	\$3,150	\$788	\$42,500	\$3,542	\$885	\$1,063	\$47,250	\$3,936	\$984	\$1,181	\$51,950	\$4,329	\$1,082	\$1,299	\$56,700	\$4,725	\$1,181	\$1,418
4 Bdrms	FOUR	\$42,000	\$3,500	\$875	\$47,250	\$3,938	\$984	\$1,181	\$52,500	\$4,375	\$1,094	\$1,313	\$57,750	\$4,813	\$1,203	\$1,444	\$63,000	\$5,250	\$1,313	\$1,575
	FIVE	\$45,350	\$3,779	\$945	\$51,050	\$4,254	\$1,064	\$1,276	\$56,700	\$4,725	\$1,181	\$1,418	\$62,350	\$5,196	\$1,299	\$1,559	\$68,050	\$5,671	\$1,416	\$1,701
	SIX	\$48,700	\$4,058	\$1,015	\$54,800	\$4,567	\$1,142	\$1,370	\$60,900	\$5,075	\$1,269	\$1,523	\$67,000	\$5,583	\$1,396	\$1,675	\$73,100	\$6,092	\$1,523	\$1,828
	SEVEN	\$52,100	\$4,342	\$1,085	\$58,600	\$4,883	\$1,221	\$1,465	\$65,100	\$5,425	\$1,356	\$1,628	\$71,600	\$5,967	\$1,492	\$1,790	\$78,100	\$6,508	\$1,827	\$1,953
	EIGHT	\$55,450	\$4,621	\$1,155	\$62,350	\$5,196	\$1,299	\$1,559	\$69,300	\$5,775	\$1,444	\$1,733	\$76,250	\$6,354	\$1,589	\$1,906	\$83,150	\$6,929	\$1,732	\$2,079

1. Annual Income = Gross annual income adjusted by household size.
2. Monthly Income = The annual income adjusted by household size divided by 12 months.
3. 25% = The monthly amount of household income used for total housing expenses (i.e., Monthly income times .25).
4. 30% = The monthly amount of household income used for total housing expenses (i.e., Monthly income times .30).

Specific program requirements may vary. Please contact the City of Chula Vista Community Development Department Housing Division for specific program information.

Revised: January 28, 1999

**Exhibit 3-C**

**Semi-Annual Report  
(Cont.)**

**CITY OF CHULA VISTA  
Fair Market Rent and Utility Allowance Schedule  
Based upon 1999 HUD FMR Data Effective October 1, 1998**

No. of Bdrm.	FMR	Allowance for Gas & Electric Combined	Rent	Water (Other than Apts)
Studio/Efficiency	\$510	\$19	\$491	\$16
1 Bdrm	\$583	\$26	\$557	\$22
2 Bdrms	\$729	\$34	\$695	\$32
3 Bdrms	\$1,014	\$41	\$973	\$35
4 Bdrms	\$1,196	\$52	\$1,144	\$45
Manufactured Home Space (Single and Double Wide)	\$405	\$41	\$364	n/a

Other Utility Allowances	Monthly Allowance
Stove	\$9
Refrigerator	\$10
Sewer	\$19
Trash Collection	\$21

1. FMR = Shelter rent and the cost of utilities, except telephones. HUD establishes the FMR on an annual basis based on the 40th percentile distribution of standard quality rental housing units. The 40th percentile rent is drawn from the distribution of rents of units which are occupied by recent movers (renter households who moved into their units within the past 15 months).

2. Allowance for Gas & Electric = Utility allowance for all units as established by the County of San Diego Section 8 Rental Assistance Program. Effective 6/15/98.

3. Rent = FMR minus Allowance for Gas & Electric and other allowances, if applicable.

Specific program requirements may vary. Please contact the City of Chula Vista Community Development Housing Division for specific program information.

Exhibit 4

San Miguel Ranch  
Homebuyer's  
Qualifying Form

Buyer's Name \_\_\_\_\_

Current Address \_\_\_\_\_

Tract \_\_\_\_\_ Lot # \_\_\_\_\_

Lot Address \_\_\_\_\_

Purchase Price<sup>1</sup> \_\_\_\_\_ Monthly PITI Payment \_\_\_\_\_

Percent of Income \_\_\_\_\_ Year of Purchase \_\_\_\_\_

# of Bedrooms \_\_\_\_\_ Household Size \_\_\_\_\_

Median San Diego Household Income \_\_\_\_\_

Percent of Median \_\_\_\_\_ Current Income \_\_\_\_\_

Signature Authorizing  
Release to City \_\_\_\_\_

Sales Representative \_\_\_\_\_

Submitted to City on \_\_\_\_\_

NOTE: This information is for the City's Reporting and Administrative Use only.

<sup>1</sup>The sale price of any unit being sold in partial satisfaction of Developer's Obligation to provide low income housing shall not exceed three times the household's annual income as required by and as may be revised from time to time by the San Diego Association of Governments (SANDAG).

**Exhibit 5**

**City of Chula Vista  
Equal Opportunity Requirements  
For the Low/Moderate Income Housing  
Affirmative Marketing Plan**

Every Developer complying with the City of Chula Vista's Housing Element's "Affordable Housing Plan" shall submit to the City an Affirmative Marketing Plan, for City review and approval. The Affirmative Marketing Plan details actions the Developer will take to provide information and otherwise attract eligible persons in the housing market area to the available housing without regard to race, sex, sexual orientation, marital status, familiar status, color, religion, national origin, ancestry, or handicap, age or any other category which may be defined by law now or in the future.

- I. The City of Chula Vista Affirmative Marketing Requirements are as follows. Please note, however, the Plan is not limited to these Requirements.
  - a. detail methods for informing the public, buyers and potential tenants about Federal fair housing laws and the City of Chula Vista's affirmative marketing policy;
  - b. publicize to minority persons the availability of housing opportunities through the type of media customarily utilized by the applicant, including minority outlets which are available in the housing market area;
  - c. identify by language, and by number, any significant number of persons in a community within the housing market area who have limited fluency in the English language;
  - d. where there is a significant number of persons in a community within the housing market area who have limited fluency in the English language, the Plan shall:
    1. identify the media most likely to reach such persons,
    2. advertise for the housing development in the native language of such persons, in addition to the English language, and
    3. describe the provisions which the housing sponsor will make for handling inquiries by, and negotiations with, such persons for the rental or sale of units in the development.

- e. Detail procedures to be used by the Developer and/or property manager to inform and solicit applications from persons in the housing market area who are not likely to apply for the housing without special outreach (e.g., use of community, organizations, places of worship, employment centers, fair housing groups, or housing counseling agencies).
- II. Records must be kept describing actions taken by the Developer and/or property managers to affirmatively market units and records to assess the results of these actions.
- a. the records shall include a copy or transcript of the advertisement copy, the identity of the media in which it was disseminated, and the date(s) of each appearance. The housing sponsor shall also keep a record of the dates and places of any meetings or communications between the housing sponsor and any individual or group referred to the housing sponsor by the agency or organizations representing any of the groups within the community acting on behalf of any classification of minority persons described above. Such records shall be retained for a period of five years;
  - b. a description of how the Developer and/or property managers will annually assess the success of affirmative marketing actions and what corrective actions will be taken where affirmative marketing requirements are not met; and
  - c. the Developer property shall furnish all information and reports required hereunder and will permit access to its books, records and accounts by the City of Chula Vista, HUD or its agent, or other authorized Federal and State officials for purposes of investigation to ascertain compliance the rules, regulations and provisions stated herein.
- III. The City of Chula Vista may, from time to time, review the Plan and the Developer's and property manager's activities pursuant to the Plan and may require amendments to the Plan if it does not fully comply with the requirements of this section.
- IV. An affirmative marketing program shall be in effect for the duration of the Qualified Term defined in the Affordable Housing Agreement.
- V. If a source of funding used in a low/moderate income housing development, such as federal or state funds, has affirmative marketing requirements more restrictive than the City of Chula Vista's affirmative marketing requirements then the more restrictive applies.

# **SAN MIGUEL RANCH**

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## *Sectional Planning Area Plan*

### **Volume 6 Air Quality Improvement Plan**

***Prepared For:***

City of Chula Vista

***Project Applicant:***

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***Prepared By:***

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**Approved**

**October 19, 1999**

Resolution No. 19631



**Giroux & Associates**  
Environmental Consultants

**AIR QUALITY IMPROVEMENT PLAN**  
**SAN MIGUEL RANCH SECTIONAL PLANNING AREA**  
**CITY OF CHULA VISTA, CALIFORNIA**

**Date:**

**August 4, 1999**



## TABLE OF CONTENTS

		<u>Page No.</u>
1.0	EXECUTIVE SUMMARY	1
2.0	INTRODUCTION	3
	2.1 Purpose and Goals	3
	2.2 Approach	3
3.0	REGULATORY FRAMEWORK	6
	3.1 Federal Regulations	6
	3.2 State Regulations	7
	3.3 Regional Plans and Policies	8
	3.4 Local Plans and Policies	10
4.0	AIR QUALITY SETTING	12
	4.1 Meteorology/Climate	12
	4.2 Air Quality	13
	4.2.1 Ambient Air Quality Standards	13
	4.2.2 Baseline Air Quality	14
	4.2.3 Sources of Pollution	18
5.0	AIR QUALITY IMPACTS	19
	5.1 Sources of Impact	19
	5.2 Standards of Significance	19
	5.3 Construction Impacts	20
	5.4 Long-Term Vehicular Emissions Impacts	24
	5.5 Stationary Source Emissions	27
6.0	IMPACT MITIGATION	30
	6.1 Roles and Responsibilities	30
	6.1.1 Developer/Builders	30
	6.1.2 Property Owners/Residents/Tenants	30
	6.1.3 Government Service Agencies	31
	6.2 AQIP Implementation Strategies	31
	6.2.1 Required AQIP Strategies	32
	6.2.1.1 Construction Emissions	32
	6.2.1.2 Site Operations	32
	6.2.2 Additional Candidate Strategies	33
	6.2.2.1 Project Construction	34
	6.2.2.2 Site Operations	34
	6.2.3 City of Chula Vista AQIP Guidelines	35
	6.3 Implementation Documentation	35
	REFERENCES	40

.....Cont'd.

**TABLE OF CONTENTS (CONT'D.)**

**List of Tables**

- Table 4.1 - Ambient Air Quality Standards**
- Table 4.2 - Chula Vista Area Air Quality Monitoring Summary**
- Table 5.1 - Daily Mass Grading Equipment Exhaust Emissions**
- Table 5.2 - San Miguel Ranch Project-Related Vehicular Emissions**
- Table 5.3 - Mitigated Vehicular Emissions**
- Table 6.1 - Design Phase Air Pollution Mitigation Checklist**

## 1.0 EXECUTIVE SUMMARY

The purpose of this Air Quality Improvement Plan (AQIP) for the San Miguel Ranch SPA Plan is to respond to the Growth Management Policies of the City of Chula Vista. Typically, the most significant potential for air quality improvement derives from policies and programs established at the broadest geographic level, i.e., state and federal. However, there are measures that can be applied on a city or project level which can have a positive benefit. This report presents an overview of these issues, and identifies mitigation/improvement measures in the following general categories which can be implemented at the local level.

1. Pedestrian and Bicycle Paths: The San Miguel Ranch SPA Plan emphasizes the use of an extensive trail system and connecting activity centers to enable non-vehicular travel. The project is designed with multiple routes, including pedestrian/bicycle "short cuts," connecting SMR residential areas and neighborhood/community destinations. The clustering of "activity uses" (school, park and retail) at a central location within the community encourages the use of non-vehicular modes of travel to these destinations.
2. Land Use Mix: The SMR SPA Plan, submitted to the City, includes job opportunities, recreation, education, retail and public facilities within the community. Full implementation of the community plan would minimize the length and number of automobile trips because of the range of opportunities and services available within the community.
3. Access to Regional Systems: The LOS requirements applied to development within the SMR SPA will encourage free-flow travel, which reduces air emissions. Connections to regional vehicular circulation, public transit and pedestrian/bicycle trail systems are integrated into the project.
4. Transit Access: The project circulation plan includes provisions for public transit facilities. Transit stops are anticipated along arterials at key intersections, where desired by the transit provider. The clustering of transit destinations encourages the use of public transit and simplifies routing and scheduling.

5. Site Design/Planning Guidance: This plan identifies the desirability and importance of consideration of transit and pedestrian/bicycle building orientation in subsequent implementing steps such as tentative map approval, site planning and design review. Inclusion of these design factors will support and enhance the alternative circulation systems provided at the neighborhood and community levels.
6. Park and Ride Facilities: The provision of a Park-and-Ride facility in proximity to the project is anticipated at East "H" Street and Mount Miguel Road. Such a Park-and-Ride facility could also provide a staging area for carpools, vanpools and transit vehicles. This facility should be incorporated into a city-wide system of similar facilities coordinated with public transit routes, including future light rail corridors.
7. Telecommuting: New homes in the project are expected to include provisions for home office areas as this is a growing desire of new home buyers. The Master Developer should work with the cable TV provider to include high speed electronic communications connections through the cable TV system. The Master Developer should commit to ensuring that new homes are not "technologically obsolete" but include pre-wiring and necessary in-home connections to take advantage of anticipated electronic communication improvements.
8. Construction Mitigation: The dust emissions generated during project grading will be mitigated by a series of specific mitigation measures identified in this plan. The mitigation measures are expected to reduce project construction emissions to a less than significant level.
9. Implementation/Monitoring: In addition, this development will be subject to the ongoing monitoring programs inherent in the City's Transportation Phasing Plan and Growth Management Program. These programs will continue to be addressed during subsequent implementing actions associated with the project.

These local mitigation measures may have a small impact on air quality in quantifiable terms, but their enhancement of future transit options, alternative transportation modes within the neighborhood and community, and public awareness should have a greater long term public benefit.

## 2.0 INTRODUCTION

### 2.1 Purpose and Goals

The purpose of this Air Quality Improvement Plan (AQIP) for the San Miguel Ranch Sectional Planning Area is to fulfill requirements in the Growth Management Program (GMP) of the City of Chula Vista. As described below, the GMP results from a long term, comprehensive planning process.

The City of Chula Vista has looked comprehensively at future development and its related impacts on public facilities and services. The approvals of the Threshold Ordinance and the General Plan update were the first steps in growth management planning. The policy process then led to the preparation and adoption of the Growth Management Element and finally the Growth Management Program.

The City's Growth Management Program is the last component in the Plan to form a comprehensive growth management system. This program implements the Growth Management Element of the General Plan and establishes an orderly process to carry out the development policies of the City. It directs and coordinates future growth patterns and rates to guarantee the timely provision of public facilities and services. The primary area of focus of the Growth Management Program is east of I-805 where most of the remaining vacant land within the City and its sphere of influence is located, including the proposed project site.

The following are goals of the San Miguel Ranch SPA Air Quality Improvement Plan:

- a. To minimize air quality impacts during and after construction of projects within the plan area.
- b. To comply with the air quality standards and policies of the City of Chula Vista and San Diego County APCD.
- c. To create a framework for the design and implementation of air quality mitigation measures in this development project.
- d. To be economically efficient and cost effective.

### 2.2 Approach

In order to insure that the role of transportation-related air pollution emissions are minimized as much as possible, measures in the regional air quality plan deal explicitly with trip/VMT

reduction. Mandatory trip reduction programs have been found to be of limited effectiveness, to be economically burdensome and to be politically unpopular. Such measures have therefore been made voluntary to be implemented at a sub-regional level where they are most effective. The City of Chula Vista AQIP requirements are designed to insure that all available emissions reduction measures are incorporated into project planning regardless of whether air quality agencies have promulgated such measures on a basinwide scale.

Air quality mitigation in this AQIP focuses on the strategies and measures available to general development projects. Trip reduction strategies generally differentiate between commercial, industrial and institutional uses which are major attractors versus residential development which is the primary source of trip generation. Successful strategies are those that most efficiently couple the attractors and generators. If attractors and generators are located in close proximity, then walking, bicycling or para-transit systems may reduce single occupant vehicle (SOV) dependence. If they are linked by efficient transit opportunities, non-SOV commuting becomes a viable option. If attractors are sufficiently large, either individually or through a specialized transportation management agency consolidating closely grouped attractors, the available pool of participants for ride-share or para-transit programs is made large enough for these programs to be effective. If commercial, employment and institutional development occurs in phase with residential growth, then trip lengths for goods, services, jobs, school, recreation, etc. can be minimized by providing needed amenities locally instead of far from the development.

Most established transportation/air quality improvement measures in the state and regional plans address issues of impact mitigation for residential projects on a limited basis. Some enhanced mitigation measures are available, however, on a local project/developer basis. These measures include best available control measures for dust (PM-10) abatement, increased energy efficiency for reduction of fuel combustion, and incorporation of features into home design to accommodate new technologies that reduce trip-making or shift travel to less polluting modes.

New development at the edge of existing communities typically begins with a residential component. As the development grows, then stores, schools, and other support facilities follow. Business park or shopping center construction may lag behind several years until the development reached "critical mass" that makes a more fully integrated community viable. The AQIP assumes that the total project will be built as planned, but the absorption rate of new development is obviously market driven. Because of the

synergy between closely linked residential and non-residential development in terms of pollution reduction efficiency, concurrent phased growth of all master-planned community components constitutes the optimum air quality improvement strategy.

The anticipated effectiveness of the AQIP is estimated using an analysis methodology developed by the California Air Resources Board (ARB) in its URBEMIS 7G (URB7G) computer model. The URB7G rates the probable project's effectiveness in achieving emissions reductions through the project's pedestrian, transit and bicycle orientation. The rating is designed to provide objective information regarding the extent to which the project is "air quality friendly." Because of the inherently subjective nature of a rating system, and because of the limited vehicular emissions reduction attainable with even a high degree of effectiveness, the regulatory emphasis at the federal and State levels continues to be focused on technological progress in tailpipe emissions control, and less on voluntary or discretionary trip/VMT reduction programs.

### 3.0 REGULATORY FRAMEWORK

Federal, state and local agencies share responsibilities for developing and implementing air quality regulations and improvement plans. The federal and state agencies have established air quality standards and requirements for compliance. The local agencies focus on adopting strategies and regulations to achieve compliance with the state and federal mandates.

Ozone and particulate matter are the principal pollutants of concern in San Diego County. The principal focus of the regional air quality effort has been directed toward reducing reactive organic gases (ROG) and oxides of nitrogen ( $\text{NO}_x$ ), which are ozone precursors. Comprehensive planning for attainment of particulate standards has only been initiated within the last few years. Transportation, especially the single occupant motor vehicle, has been the emissions reduction target for several decades of air quality planning. Emission controls on vehicles have been promulgated at the state and federal levels. The local (basinwide or sub-basin) contribution toward mobile source emissions reduction has concentrated on optimizing the transportation system efficiency. Stationary source controls of ROG or  $\text{NO}_x$  are embodied in the rules and regulations of the San Diego Air Pollution Control District (SDAPCD). Because the largest and most obvious sources have been brought under control years ago, new rules focus mainly on bringing progressively smaller sources under control, or on further "fine-tuning" controls from already regulated major stationary sources.

Attainment planning for 10-micron or less diameter particulate matter (PM-10) has lagged that for ozone. Current planning efforts are including specific PM-10 attainment targets. With the recent (1997) adoption of national clean air standards for ultra-small diameter particulate matter of 2.5 microns or less in diameter (PM-2.5), it will require a number of additional years of data collection and analysis to determine the attainment status of the San Diego Air Basin (SDAB) for PM-2.5. Current control efforts, including those identified in this AQIP, address only PM-10.

#### 3.1 Federal Regulations

The Federal Clean Air Act was enacted in 1970 and amended in 1977 and 1990 to protect and enhance the quality of the nation's air resources to benefit public health, welfare, and productivity. IN 1971, the Environmental Protection Agency (EPA) developed primary and secondary national ambient air quality standards (NAAQS). Six pollutants of primary concern were designated: ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, lead, and suspended particulates (PM-10).



According to the Clean Air Act, the NAAQS must "... allowing an adequate margin of safety ... protect the public health" and the secondary standards must "protect the public welfare from any known or anticipated adverse effects" (1990 Clean Air Act, Section 109). "Public welfare" includes tangible and intangible things such as aesthetics, agriculture and architecture. The primary standards were established with a margin of safety, considering long-term exposures for the most sensitive groups in the general population (i.e., children, senior citizens and people with breathing difficulties).

The EPA also allows states the option to develop different (stricter) standards. Because of unique air quality constraints in the state, California has adopted a number of state standards that are either more stringent or cover other pollutants for which there are no national standards.

### 3.2 State Regulations

AB-2595 (Sher), effective on January 1, 1989, required that regional air quality districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures. As a designated "serious" ozone non-attainment area, San Diego is subject to various requirements including:

- Five percent annual reduction in hydrocarbons and oxides of nitrogen emissions from 1987 until standards are attained. If this five-percent reduction cannot be obtained, every feasible measure must be implemented.
- Transportation control measures (TCMs) to achieve an average of 1.4 persons per passenger vehicle during weekday commute hours of 1999 or programs providing equivalent emissions reductions not otherwise required.

The Regional Air Quality Strategies is the document that sets forth the strategies for achieving air quality standards. The SDAPCD is responsible for preparing and implementing the RAQS. The SDAPCD adopts rules, regulations, and programs to attain state air quality standards.

In addition, Section 15125(b) of the CEQA Guidelines contains specific reference to the need to evaluate any inconsistencies between the proposed project and applicable general plans and regional plans. Consistency requires that the growth engendered by the proposed general development plan has been incorporated as to scope and schedule into the RAQS. Specifically, project

development must have been adequately forecast in regional growth forecasts. Similarly, necessary portions of the regional transportation plan must be built concurrently with the project to insure that the project is served by a pollution-efficient transportation system. The Public Facilities Financing Plan requires that roadway capacity be expanded in concert with new development to prevent congestion due to new growth. Increased freeway capacity is planned and anticipated, but project completion dates are beyond the control of the City of Chula Vista or of local developers.

### 3.3 Regional Plans and Policies

As noted above, the San Diego APCD is the agency that regulates air quality in the SDAB. The APCD prepared the 1991/1992 RAQS in response to the requirements of state law. The draft was adopted, with amendments, on June 20, 1992. Attached as part of the RAQS are the transportation control measures (TCMs) for the air quality plan prepared by the San Diego Association of Governments (SANDAG). The required triennial update of the RAQS and corresponding TCMs were adopted on December 12, 1995. The RAQS and TCM plan set forth the steps needed to accomplish attainment of state and federal ambient air quality standards.

The APCD has also established a set of Rules and Regulations initially adopted on January 1, 1969, and periodically reviewed and updated. The Rules and Regulations define requirements regarding stationary sources of air pollutants and fugitive dust.

The California Air Resources Board (ARB) has classified the San Diego region as having a "severe" air pollution problem. Because the air basin could demonstrate timely attainment of clean air standards due to pollutants generated within the basin, the federal "severe" designation was modified to "serious." A serious designation reduces the planning and regulatory requirements versus a severe non-attainment designation.

According to the SDAPCD, the major sources of air pollutants in the region are motor vehicles and pollution blown in from Los Angeles. Given this situation, local air quality improvement efforts are focused on transportation issues. To address air quality problems related to transportation, level of service standards for arterials, highways and transit are being developed, as are goals for reducing solo auto trips.

The San Diego County Congestion Management Plan (CMP) was approved in June of 1990 and is intended to directly link land use, transportation and air quality through level of service performance. Local agencies are required to conform to the CMP by statute.

One of the elements of the CMP is an enhanced CEQA review process which applies to all discretionary projects which contribute more than a specific number of vehicles to the system. An impact is considered significant if it adds more than 50 vehicles in the peak hour in each direction of a Regionally Significant Arterial (RSA), or more than 150 vehicles in the peak hour in each direction of a freeway. These peak hour directional values equate to 800 two-way average daily trips (ADT) on RSAs, or 2,400 two-way ADT on a freeway. The limits of San Miguel Ranch project review for CMP freeway facilities is I-805 from I-8 to SR-905, SR-54 from I-805 to SR-125, and SR-125 from SR-54 to SR-94.

Of these facilities, I-805 and SR-125 are forecast to experience volume levels in excess of the CMP thresholds by 2010. Project-related traffic would range from 1.5 to 2.3 percent on SR-54 from I-805 to Ildica Street and from 1.7 to 6.7 percent on SR-125 from SR-54 to Lonestar Road as a percentage of total freeway ADT. These increments would exceed the 2,400 ADT CMP impact threshold. These freeway congestion impacts are considered as significant and unmitigable impacts. Project developers and the City of Chula Vista are committed to working with multi-agency task forces to continue to develop additional roadway capacity or to promote alternatives to the single-occupant fossil-fueled vehicle to offset these significant impacts to the fullest extent possible.

Another regional effort is focused on Transportation Demand Management. The purpose of Transportation Demand Management (TDM) is to alleviate traffic problems by managing vehicle trip demand rather than through the construction of additional transportation facilities. SANDAG developed a Model Regional TDM Program in January 1991 with the goal of increasing the Average Vehicle Occupancy Rate (AVR) to 1.41 in 1998.

The key measures used in TDM are travel management and work hours management. Travel management measures include reducing the number of single occupancy vehicle trips by implementing carpool and vanpool programs, restricting or pricing parking supply, subsidizing transit fares and encouraging alternate modes of travel by providing additional amenities and facilities. Work hours management measures attempt to shift vehicle trip demand on freeway and road facilities from peak periods to less congested periods by implementing flexible or staggered work hours and telecommuting.

Local Transportation Management Associations (TMA) are involved in encouraging and assisting major employers and their Employee Transportation Coordinators (ETC) in implementing and planning TDM programs aimed at reducing the number of single occupant vehicle trips to the work place.

Freeway ramp meters are another regional program designed to maximize freeway capacity, reduce traffic congestion and reduce delays during the commute period. This is accomplished by limiting the number of vehicles entering the freeway, and thus maintaining mainline traffic flow at reasonable speeds. If excess demand exists at freeway off-ramps, delays and considerable queue lengths could result on ramps and adjacent arterials. The 1994 Regional Transportation Plan indicates that ramp meters are planned for all on-ramps along I-805 and future SR-54 in the Southbay by 1999.

### 3.4 Local Plans and Policies

At the local level, within Chula Vista, there is no local air quality plan. However, the City has included a Growth Management Element (GME) in its General Plan. One of stated objectives of the GME is to have active planning to meet federal and state air quality standards. This objective is incorporated into the GME's action program. Although adopted in 1989, the GME has remained current by not only requiring air pollution reduction measures identified in 1989 but also "measures developed in the future."

To implement the GME, the City Council has adopted the Growth Management Program (GMP) which requires Air Quality Improvement Plans (AQIPs) for major development projects (50 residential units or commercial/industrial projects with equivalent air quality impacts). The purpose of the GMP is to assist the City in assessing the environmental, fiscal and operational impacts of proposed land development.

The Traffic Element of the GMP initially specified threshold standards for acceptable levels of service at signalized intersections only. It was revised in 1991 to conform to the 1985 Highway Capacity Manual (HCM) to include arterial LOS based on average travel speed. This revised Traffic Element forms the basis for the annual City Traffic Monitoring Program (TMP).

The city-wide threshold standard is to maintain LOS "C" or better based on observed average travel speed on all signalized arterial segments with the exception that during peak hours, LOS "D" can occur for no more than any two hours of the day.

Public transit is also a locally controlled factor affecting air quality. Chula Vista Transit (CVT) provides bus service to the eastern territories. Transit officials use the MTDB South Bay Public Transportation Plan as a guide in phasing and expanding service to the area. The current expansion policy, while not written, attempts to provide bus service where sufficient ridership is available. Funding for the Chula Vista Transit service is provided by fare box revenues (45%) and the 1/4% State sales tax proceeds.

Looking to the future, in March 1991 SANDAG completed the "South Bay Rail Transit Extension Study". The report evaluated the feasibility of extending light rail (trolley) and commuter rail service in the South Bay. Specifically, the light rail service required to serve the eastern territories of Chula Vista and Imperial Beach was evaluated using cost and ridership estimates as a measure of performance and feasibility. Potential land use patterns to support rail transit service were also evaluated.

Three light rail corridors were determined worthy of further study. Optimum corridor locations are those that serve the greatest concentration of future residents and employment centers. A route through Otay Ranch has been identified as having the best likely performance of all alternatives studies. While San Miguel Ranch would not be served directly, access to this alignment via SR-125 would be reasonably available.

The South Bay Rail Transit Extension Study was accepted by the SANDAG Board and a follow-up study being administered by the Metropolitan Transit Development Board (MTDB) has been completed. This study, the "South Bay Public Transportation Plan," has the following components:

- Assemble existing short range public transportation for the South Bay.
- Prepare a South Bay seven-year public transportation plan.
- Identify major transit facilities.
- Develop a staging plan.
- Study proposed guide-way transit corridors and station locations.
- Study adequacy of existing land use plans as they relate to supporting mass transit.

No funding source has been identified for the proposed light rail extensions, and the currently programmed MTDB extensions are currently under-funded. The State Propositions 108 and 111 which passed in 1990 have provided significant funds for MTDB near-term projects, however, the rail extension project is very long term in nature.

#### 4.0 AIR QUALITY SETTING

##### 4.1 Meteorology/Climate

The climate of Chula Vista, as with all of Southern California, is largely controlled by the strength and position of the semi-permanent high pressure center over the Pacific Ocean. The high pressure ridge over the West Coast creates a repetitive pattern of frequent early morning cloudiness, hazy afternoon sunshine, clean daytime onshore breezes and little temperature change throughout the year. Limited rainfall occurs in winter when the oceanic high pressure center is weakest and farthest south as the fringes of mid-latitude storms occasionally move through the area. Summers are often completely dry with an average of 10.3 inches of rain falling each year from November to early April at Lower Otay Reservoir, the nearest climate station to the project site.

Unfortunately, the same atmospheric conditions that create a desirable living climate, combine to limit the ability of the atmosphere to disperse the air pollution generated by the large population attracted to the San Diego County climate. The onshore winds across the coastline diminish quickly when they reach the foothill communities east of San Diego, and the sinking air within the offshore high pressure system forms a massive temperature inversion that traps all air pollutants near the ground. The resulting horizontal and vertical stagnation, in conjunction with ample sunshine, causes a number of reactive pollutants to undergo photochemical reactions and form smog that degrades visibility and irritates tear ducts and nasal membranes.

Because coastal areas are well ventilated by fresh breezes during the daytime, they generally do not experience the same frequency of air pollution problems found in some areas east of Chula Vista. Unhealthful air quality within the San Diego Air Basin's southern coastal communities does occur at times in summer during limited localized stagnation, but occurs mainly in conjunction with the occasional intrusion of polluted air from the Los Angeles Basin into the County. Localized elevated pollution levels may also occur in winter during calm stable conditions near freeways, shopping centers or other major traffic sources, but such clean air violations are highly localized in space and time and would not normally be found near the project site. Except for the occasional interbasin transport, air quality in the project vicinity is probably quite good.

Local meteorological conditions in the project vicinity have not been routinely monitored, but they likely conform to the regional pattern of strong onshore winds by day, especially in summer, and

weak offshore winds at night, especially in winter. These local wind patterns are driven by the temperature difference between the normally cool ocean and the warm interior and steered by any local topography. In summer, moderate breezes of 8-12 mph blow onshore and upvalley from the SW by day, and may continue all night as a light onshore breeze when the land remains warmer than the ocean. In winter, the onshore flow is weaker and reverses to blow from the NE in the evening as the land becomes cooler than the ocean.

Both the onshore flow of marine air and the nocturnal drainage winds are accompanied by two characteristic temperature inversion conditions that further control the rate of air pollution dispersal throughout the air basin. The daytime cool onshore flow is capped by a deep layer of warm, sinking air. Along the coastline, the marine air layer beneath the inversion cap is deep enough to accommodate any locally generated emissions. However, as the layer moves inland, pollution sources (especially automobiles) add pollutants from below without any dilution from above through the inversion interface. When this progressively polluted layer approaches foothill communities east of coastal developments, it becomes shallower and exposes residents in those areas to the concentrated reacted byproducts of coastal area sources.

A second inversion type occurs when slow drainage or stagnation of cool air at night creates localized cold "pools" while the air above the surface remains warm. Such radiation inversions occur throughout the San Diego area but are strongest within low, channelized river valleys. They may trap vehicular exhaust pollutants such as carbon monoxide (CO) near their source until these inversions are destroyed by surface warming the next morning. Any such CO "hot spots" are highly localized in space and time (if they occur at all), but occasionally stagnant dispersion conditions are certainly an important air quality concern in combination with continued intensive development of the Chula Vista area. The intensity of development near the project site is extremely low such that non-local background pollution levels during nocturnal stagnation periods are also low. The local airshed, therefore, has considerable excess dispersive capacity that limits the potential for any localized air pollution "hot spots" from project implementation.

## **4.2 Air Quality**

### **4.2.1 Ambient Air Quality Standards (AAQS)**

In order to gauge the significance of the air quality impacts of implementation of the San Miguel Ranch SPA Plan, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These

standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people whose current health condition makes them most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness and persons engaged in strenuous work or exercise, called "sensitive receptors."

Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone at levels that just meet federal AAQS may nevertheless have an adverse respiratory health impact. Just meeting standards may not provide a sufficient health protection cushion for sensitive receptor populations.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended to 1987 for certain National AAQS, and that deadline passed with the San Diego Air Basin (SDAB) still far from attainment. A California Clean Air Act (AB-2595) and a new Federal Clean Air Act have both since been promulgated that establish more realistic implementation timeframes for airsheds with moderately degraded air quality such as SDAB. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and federal clean air standards. Those standards currently in effect in California are shown in Table 4.1.

#### 4.2.2 Baseline Air Quality

The nearest air quality measurements to the project site are made in downtown Chula Vista by the San Diego County Air Pollution Control District (APCD), the agency responsible for air quality planning, monitoring and enforcement in the SDAB. Table 4.2 summarizes the last seven years of published monitoring data from the Chula Vista (80 East J. St.) station. Progress toward cleaner air is seen in almost every pollution category in Table 4.2. The only federal clean air standard that was exceeded throughout the 7-year monitoring period was the hourly ozone standard which was exceeded an average of 1-2 times per year (once per year is allowable). The more stringent State standards for ozone and for 10-micron diameter respirable particulate matter (PM-10) were exceeded on a somewhat higher frequency; but, overall air quality in Chula Vista, as representative of the San Miguel Ranch area, is nevertheless very good in comparison to other areas of the SDAB.



**TABLE 4.1**

<b>Ambient Air Quality Standards</b>							
Pollutant	Averaging Time	California Standards		Federal Standards			
		Concentration	Method	Primary	Secondary	Method	
Ozone (O <sub>3</sub> )	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	0.12 ppm (235 µg/m <sup>3</sup> )	Same as Primary Standard	Ethylene Chemiluminescence	
	8 Hour	—		0.08 ppm (157 µg/m <sup>3</sup> )			
Respirable Particulate Matter (PM <sub>10</sub> )	Annual Geometric Mean	30 µg/m <sup>3</sup>	Size Selective Inlet Sampler ARB Method P (8/22/85)	—	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	24 Hour	50 µg/m <sup>3</sup>		150 µg/m <sup>3</sup>			
	Annual Arithmetic Mean	—		50 µg/m <sup>3</sup>			
Fine Particulate Matter (PM <sub>2.5</sub> )	24 Hour	No Separate State Standard		65 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean			15 µg/m <sup>3</sup>			
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	Non-dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m <sup>3</sup> )	None	Non-dispersive Infrared Photometry (NDIR)	
	1 Hour	20 ppm (23 mg/m <sup>3</sup> )		35 ppm (40 mg/m <sup>3</sup> )			
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—			
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	—	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	Gas Phase Chemiluminescence	
	1 Hour	0.25 ppm (470 µg/m <sup>3</sup> )		—			
Lead	30 days average	1.5 µg/m <sup>3</sup>	AIHL Method 54 (12/74) Atomic Absorption	—	Same as Primary Standard	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m <sup>3</sup>			
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	—	Fluorescence	0.030 ppm (80 µg/m <sup>3</sup> )	—	Pararosaniline	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (365 µg/m <sup>3</sup> )			
	3 Hour	—		—			0.5 ppm (1300 µg/m <sup>3</sup> )
	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )		—			—
Visibility Reducing Particles	8 Hour (10 am to 6 pm PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer—visibility of ten miles or more (0.07—30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent. Method: ARB Method V (8/18/89).		No Federal Standards			
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Turbidimetric Barium Sulfate-AIHL Method 61 (2/76)				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Cadmium Hydroxide STRactan				

TABLE 4.2

**CHULA VISTA AREA AIR QUALITY MONITORING SUMMARY**  
(Days Standards Were Exceeded and Maxima For Periods Indicated)

Pollutant/Standard	1992	1993	1994	1995	1996	1997	1998
<u>Ozone:</u>							
1-Hour > 0.09 ppm	14	12	4	7	1	10	2
1-Hour > 0.12 ppm	4	1	0	1	0	0	0
Max. 1-Hour Conc. (ppm)	0.15	0.13	0.10	0.14	0.10	0.12	0.10
<u>Carbon Monoxide:</u>							
1-Hour > 20. ppm	0	0	0	0	0	0	X
8-Hour > 9. ppm	0	0	0	0	0	0	X
Max. 1-Hour Conc. (ppm)	7	5	7	5	6	5	X
Max. 8-Hour Conc. (ppm)	3.8	3.5	3.8	4.0	3.2	4.0	X.X
<u>Nitrogen Dioxide:</u>							
1-Hour > 0.25 ppm	0	0	0	0	0	0	X
Max. 1-Hour Conc. (ppm)	0.15	0.09	0.10	0.10	0.08	0.11	X.XX
<u>Particulate Sulfate:</u>							
24-Hour $\geq 25. \mu\text{g}/\text{m}^3$	0/29	0/31	0/34	0/30	0/43	1/53	X/XX
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	9.9	19.0	15.4	22.0	24.0	27.0	XX.X
<u>Inhalable Particulates (PM-10):</u>							
24-Hour > $50 \mu\text{g}/\text{m}^3$	2/60	2/60	2/60	5/59	2/60	2/60	X/XX
24-Hour > $150 \mu\text{g}/\text{m}^3$	0/60	0/60	0/60	0/59	0/60	0/60	X/XX
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	54	56	61	103	62	58	XX

Note: Standards for sulfur dioxide and particulate lead have been met with a wide margin of safety in 1992-98, and are, therefore, not shown.

Source: California Air Resources Board, Summary of Air Quality Data, 1992-98. Chula Vista APCD Monitoring Station (except for some particulate data which are from San Diego APCD Downtown Station).

XX = Other final 1998 monitoring data besides ozone has not yet been released by the SDAPCD.

There are no clear-cut trends in the Chula Vista baseline air quality data in Table 4.2. Improvement of the few standards sometimes exceeded is relatively slow. Some very encouraging trends are seen in Table 4.2, particularly for the most recent data. In the last five years, Chula Vista recorded the following air pollution records in its monitoring history:

- fewest violations of the California hourly ozone standard (1996)
- no violations of federal ozone standard 1994-1996 & 1997-1998)
- lowest annual 1-hour ozone maximum (1994, 1996)
- lowest annual 1-hour CO maximum (1995, 1997)
- lowest annual 8-hour CO maximum (1996)
- lowest annual 1-hour NO<sub>2</sub> maximum (1996)
- fewest violations of PM-10 standard (1994, 1996)

Extrapolation of the pollution trendline suggests that limited violations of standards could occur into the future but with decreasing frequency. Since observed San Diego County ozone air quality sometimes derives from the southward drift of pollution from the South Coast Air Basin (which is forecast to continue to exceed ozone standards to the year 2010), some ozone standard violations will likely occur in the County beyond the 1999 attainment target date despite Countywide pollution control efforts. A further improvement in ambient air quality from County-generated emissions reductions will thus occur within the next decade, but complete attainment of all standards may not happen until after the turn of the century.

As noted above, federal attainment criteria allow for one violation of standards per year averaged over three years. Inspection of Table 4.2 shows that the federal ozone standard of 0.12 ppm for one hour was only exceeded only twice from 1993 through 1998. The Chula Vista area thus meets the federal ozone standard. Except in foothill communities most affected by air stagnation at the base of the summer inversion, attainment of the federal ozone standard is close at hand throughout the air basin.

Some air quality concern has been raised about pollutant transport from Mexico with its considerably less stringent pollution control laws. An air quality station was established on Otay Mesa in part to monitor this phenomenon. Slight differences in ozone distribution on Otay Mesa are seen compared to Chula Vista. These differences are not so dramatic, however, as to indicate any substantial cross-border pollution transport that might affect San Miguel Ranch.

#### 4.2.3 Sources of Pollution

Nitrogen oxides ( $\text{NO}_x$ ) and reactive organic gases (ROG) are the two precursors to photochemical smog formation. In San Diego County, 68% of the 310 tons per day of ROG emitted come from mobile (cars, ships, planes, heavy equipment, etc.) sources. For  $\text{NO}_x$ , 88% of the 240 tons emitted daily are from mobile sources. Computer modeling of smog formation has shown that a reduction of around 25% each of  $\text{NO}_x$  and ROG would allow the San Diego Air Basin to meet the federal ozone standard on days when there is no substantial transport of pollution from the South Coast Air Basin or other airshed.

## 5.0 AIR QUALITY IMPACTS

### 5.1 Sources of Impact

The proposed project will impact air quality primarily through the vehicular traffic generated by project residents. Mobile source impacts occur basically on two scales of motion. Regionally, site-related travel will add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed. Locally, project traffic, will be added to the Chula Vista roadway system near the project site. If such traffic occurs during periods of poor atmospheric ventilation, is comprised of a large number of vehicles "cold-started" and operating at pollution inefficient speeds, and is driving on roadways already crowded with non-project traffic, there is a potential for the formation of microscale air pollution "hot spots" in the area immediately around points of congested traffic. With continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, air pollution "hot spot" potential is steadily decreasing. Standards for carbon monoxide (CO), the most typical indicator of any "hot spot" potential, have not been exceeded at any air basin monitoring station since 1990.

Secondary project-related atmospheric impacts derive from a number of other small, growth-connected emissions sources such as temporary emissions of dusts and fumes during project construction, increased fossil-fuel combustion in power plants from project electricity requirements, evaporative emissions at gas stations or from paints, thinners or solvents used in construction and maintenance, increased air travel from area visitors, dust from tire wear and re-suspended roadway dust, etc. All these emission points are either temporary, or they are so small in comparison to project-related automotive sources such that their impact is less important. They do point out, however, that growth engenders increased air pollution emissions from a wide variety of sources, and thus further inhibits the near-term attainment of all clean air standards in the San Diego Air Basin (SDAB).

### 5.2 Standards of Significance

CEQA guidelines define a potentially significant air quality impact as one that:

- a. creates violations of clean air standards,
- b. contributes measurably to an existing violation, or,
- c. exposes people to contaminants for which there are no presumed safe exposures.

For projects that create mainly automobile traffic whose emissions require complex photochemical reactions to reach their most harmful stage, there is no way to measure the impact to establish a "measurable contribution". Various air pollution control/management agencies have developed guidelines using total project emissions as a surrogate for determining regional impact potential. The City of Chula Vista has no such threshold levels, but relies on guidance from other agencies. Candidate significance threshold levels include the following:

**Significant Emissions (lb/day)**

<u>Agency</u>	<u>CO</u>	<u>ROC</u>	<u>NOx</u>	<u>SOx</u>	<u>PM-10</u>
SDAPCD Rule 20.2 (a)	550	100	100	100	100
City of San Diego (b)	550*	100**	---	---	---
South Coast AQMD (c)	550	55	55	150	150

- a = requires best available control
- b = requires ambient air quality analysis
- c = Significance Determination Guidelines (1991)
- d = SCAQMD CEQA Air Quality Handbook (1993)

- \* = in areas of congested traffic
- \*\* = in areas of free-flow traffic

For purposes of analysis, the SDAPCD Rule 20.2 (BACT-trigger) is a reasonable compromise between the most stringent and most lenient of the three possible significance thresholds noted above.

**5.3 Construction Impacts**

The most significant source of air pollution from project construction will be the dust generated during excavation, grading and site preparation. Typical total dust lofting rates from construction activities are usually assumed to average 1.2 tons of dust per month per acre disturbed in the absence of any dust control procedures. These emissions are for total suspended particulates (TSP) which comprise smaller, respirable particulate matter of 10-micron diameter or less (called PM-10), as well as larger particles that are trapped within the upper respiratory tract of people and other mammals. The PM-10 fraction of TSP is assumed to be around 50 percent. The PM-10 emission factor for

project-related soil disturbance is around 55 pounds per day per acre disturbed in the absence of any dust control.

The California Air Resources Board (ARB) area source emissions inventory guidelines estimate that the net disturbance area for single-family housing is 0.25 acre per dwelling unit. Multi-family units have a presumed smaller disturbance footprint of 0.05 acre per unit. The residential development disturbance footprint for calculating dust generation for San Miguel Ranch is approximately 285 acres. An additional 65 acres will be heavily graded for commercial, school and other community facilities. The net San Miguel Ranch disturbance area will be approximately 350 acres, not all of which will be under simultaneous construction.

For purposes of analysis, approximately one-tenth, or perhaps 35 acres, was assumed to be disturbed on any given day. In the absence of any dust control, simultaneous disturbance of the 35 acres would generate daily total PM-10 emissions of 1900 pounds if no mitigation measures are implemented. Implementation of vigorous dust control measures would reduce PM-10 associated with grading by 50-75 percent or in the range of 500-1000 pounds per day. This range of emissions would still exceed the daily PM-10 significance threshold of 100 pounds per day. This generation of construction dust PM-10 emissions can be reduced to sub-threshold levels by reducing the area of disturbance and by using a very aggressive dust control program. Highly effective dust control can achieve a 90 percent control efficiency. If such a control program were implemented, and the simultaneous disturbance were restricted to less than 20 acres per day, then daily PM-10 emissions could be maintained at less than the identified significance thresholds.

Continuous enforcement of multiple dust control measures or limiting the disturbance area on a large-scale grading project can be difficult. There will likely be instances where daily PM-10 emissions will exceed significance thresholds even when all feasible dust control measures are made a part of project planning. Components of a dust control program that use best available control methods (BACMs) is detailed in the mitigation discussion.

In addition to small dust particles that remain suspended in the air semi-indefinitely, construction also generates many large particles that are easily filtered by human breathing passages, but settle out rapidly on parked cars and other nearby horizontal surfaces. Large particle emissions thus comprises more of a soiling nuisance rather than any potentially unhealthful air quality impact. With prevailing daytime west to east winds, dust soiling potential is likely greatest directly east of the project site. Good control of fine particulates also results in substantial reduction in nuisance potential from larger particulate

matter. The travel distance for large diameter dust particles that create a possible soiling nuisance is very small. Most large particles created by surface disturbance during construction are redeposited within several hundred feet of the source. Grading activity soiling nuisance, except possibly during strong Santa Ana winds, normally does not extend outside the project area itself. While temporary soiling nuisance is considered adverse, it does not constitute a significant air quality impact.

It should be noted that current regulatory philosophy relative to airborne particulates is that PM-10 is not an adequate predictor of potential health impacts. It has been clearly demonstrated that the health risk lies in much smaller particulate matter with diameters of 2.5 microns or less, called "PM-2.5". New federal standards for PM-2.5 were promulgated in 1997. Research has shown that mechanical abrasion processes such as clearing or grading of soil contribute little to the area PM-2.5 burden. Since grading is not a major PM-2.5 contributor, and since inert silicates comprising most soil dust are further not particularly unhealthful, impact significance from grading activity dust generation will be minimal in terms of human health impact potential.

Equipment exhaust as well will be released during project construction activities from mobile sources during site preparation. On-site, diesel-powered construction equipment will create gaseous and particulate tailpipe emissions that are not regulated by smog control rules such as for on-road sources. Recent new rules for off-road equipment have been adopted, but they apply to future new equipment purchases and not to the historical off-road equipment fleet likely to be used during site grading. Typical site grading was assumed to entail ten (10) scrapers operating at an average power load of 60 percent of full throttle, assisted by two dozers and two graders operating at a 40 percent power level each. Daily equipment exhaust emissions are shown in Table 5.1.

NO<sub>x</sub> emissions from on-site equipment operations may exceed the daily emissions activity significance threshold. NO<sub>x</sub> is an ozone precursor that requires several hours of atmospheric chemical conversion before ozone is created. With daily west to east winds, this conversion process will occur in sparsely inhabited, and highly turbulent, mountain areas of east San Diego County. Impacts from on-site equipment NO<sub>x</sub> emissions released during San Miguel Ranch construction will therefore be much less severe than if the equivalent amount of emissions is released along the County's coastal corridor. As with PM-10 impacts, the health consequences from construction activity exhaust, even if NO<sub>x</sub> thresholds are exceeded, are very minimal.



**TABLE 5.1****DAILY MASS GRADING EQUIPMENT EXHAUST EMISSIONS****Emissions Factors (pounds/hour @ 100% load)**

<u>Equipment:</u>	<u>CO</u>	<u>ROC</u>	<u>Nox</u>	<u>SO2</u>	<u>PM-10</u>
Tracked Dozer	0.20	0.12	1.26	0.14	0.11
Motor Grader	0.15	0.04	0.71	0.09	0.06
Scraper	1.25	0.27	3.84	0.46	0.41
Water Truck	0.22	0.04	0.26	0.03	0.02

**Daily Emissions (pounds/day)**

Tracked Dozers (2)	1.3	0.8	8.1	0.9	0.7
Motor Graders (2)	1.0	0.3	4.5	0.6	0.4
Scrapers (10)	60.0	13.0	184.3	22.1	19.7
Water Trucks (2)	3.5	0.6	4.2	0.5	0.3
<b>TOTAL</b>	<b>65.8</b>	<b>14.7</b>	<b>201.1</b>	<b>24.1</b>	<b>21.1</b>
 SDAPCD Rule 20.2 Threshold	 550.	 100.	 100.	 100.	 100.
 Exceeds Threshold (?)	 No	 No	 Yes	 No	 No

Source: USEPA Compilation of Air Pollutant Emission Factors, AP-42 (1995 rev.).

Although the daily NO<sub>x</sub> emissions are substantial, the mobile nature of the construction equipment will prevent any localized violation of the NO<sub>x</sub> standard. Emissions will also be spread out over a wide area and over an extended buildout schedule. There may be localized instances when the characteristic diesel exhaust odor might be noticeable from passing trucks or nearby heavy equipment, but such transitory exposure is a brief nuisance and will not threaten air quality standards.

Construction activities are most noticeable in the immediate vicinity of the construction site. There is, however, some potential for "spill-over" into the surrounding community. Spillage may be physical such as dirt tracked onto public streets or dropped from trucks. Spill-over may also be through congestion effects where detours, lane closures, or construction vehicle competition with non-project peak hour traffic slows traffic beyond the immediate construction site to less pollution-efficient travel speeds. Such off-site effects are controllable through good housekeeping and proper construction management/scheduling. Management techniques are suggested in the mitigation discussion to reduce potential spill-over impacts.

#### 5.4 Long-Term Vehicular Emissions Impacts

The greatest air quality concern from land use intensification usually derives from the mobile source emissions that result from project-related transportation. The San Miguel Ranch project traffic study estimates that site-related traffic will total 28,684 "new" daily vehicle trips. The average travel distance for combined commuting, shopping and other purposes is almost 9 miles per individual trip. Project implementation will generate an additional 250,000 vehicle miles traveled (VMT) within the air basin. The corresponding air pollution emissions associated with site-related travel was calculated using the California ARB URB7G emissions model. This model calculates average daily emissions by combining the VMT data with average vehicular emission factors from the EMFAC7G California vehicular emissions computer model. The daily mobile-source emissions for the San Miguel Ranch project are shown in Table 5.2.

With a likely buildout by 2010, smog-forming NO<sub>x</sub> and ROC emissions would be above the 100 pound per day significance threshold. Regional air quality impacts from project implementation related to potential smog formation are therefore potentially significant. CO emissions will also be above the significance threshold. Steadily declining regional background CO levels, however, allow for a considerable local contribution before a "hot spot" is created. City of San Diego CEQA guidelines suggest that a detailed microscale air quality study is recommended if project-related CO

**TABLE 5.2**

**SAN MIGUEL RANCH  
PROJECT-RELATED VEHICULAR EMISSIONS  
(lbs/day)**

<u>Source</u>	<u>ROG*</u>	<u>CO</u>	<u>NOx</u>	<u>PM-10</u>	<u>SOx</u>
PROJECT TOTAL (unmitigated)	239.2	2067.3	564.0	255.9	25.5
Signif. Threshold	100.	550.	100.	100.	100.
Exceeds (?)	Yes	Yes	Yes	Yes	No

Source: URB7G Vehicular Emissions Computer Model, Year = 2010  
(Output in Appendix).

levels exceed 550 pounds per day and congested intersections are forecast to occur in the project vicinity. Maintaining adequate roadway/intersection levels of service is a condition for project approval. Traffic mitigation will preclude any possible localized congestion-related "hot spot" concerns.

Regional PM-10 emissions from project-related traffic would also exceed the daily significance threshold. A small fraction of PM-10 derives from vehicular exhaust. A much larger fraction is from roadway dust generated by vehicular turbulence. The Exhaust fraction contains the most unhealthful particulate matter, especially if there are diesel trucks in the travel fleet. A suburban development such as San Miguel Ranch generates few diesel trucks. The project site may, however, be exposed to diesel exhaust particulates from future SR-125 traffic.

Increased regional air quality emissions at levels exceeding the suggested significance threshold are a natural outgrowth of planned areawide growth. Development of San Miguel Ranch at the levels currently proposed has been anticipated within the regional air quality planning process since project approval in 1991. The currently proposed scope of development generates two percent fewer vehicle trips than the scope of the project that was included in regional air quality attainment planning. San Miguel Ranch development will neither measurably worsen air quality or delay attainment of clean air standards on a regional scale. Project development will thus generate significant levels of ozone precursors, but regional attainment programs will mitigate that impact.

The values in Table 5.2 do not include any mitigation from trip diversion to non-single occupant vehicle modes. Trip reduction may be achieved by enhanced pedestrian, bicycle or transit opportunities. The URB7G model incorporates various factors in each of these three environments to create a rating scale for any proposed project. These rating scales are created by allocating a system of "points" for pedestrian, transit and bicycle project features, and comparing them to an ideal development where these features are completely optimized. The pedestrian environment has seven rating factors (safety, visual interest, sidewalks, interconnection, etc.) worth 19 rating points. The bicycle environment has six factors worth 20 total points. The rating scale is created by the sum of all project factors divided by the optimum score to generate an effectiveness factor that ranges from 0.000 to 1.00. Because transit utilization involves walking to/from the transit access point, the pedestrian factor appears again in the transit score.

Based upon existing development plans and the anticipated transit access by 2010, the project's rating for each of the three diversion opportunities is as follows:

Pedestrian Effectiveness Factor	=	0.63
Transit Effectiveness Factor	=	0.29
Bike Effectiveness Factor	=	0.57

Pedestrian and bicycle effectiveness are high because of a strong intra-community orientation toward the use of walking and bicycles to meet short-trip needs. Because of the project's location on the perimeter of existing development, transit orientation in the near future (ten years) will be less pronounced within San Miguel Ranch.

Emissions reduction from trip diversion are calculated by multiplying the project effectiveness score for each environment (pedestrian, transit and bicycle) by the level of trip reduction/emissions reduction attainable by a development with a 1.00 score for each of the three categories. Use of pedestrian facilities replaces short trips to school or to shop, while transit can replace longer commuting trips. The available "pool" of emissions reduction for an ideal community is 20-25 percent of the project's total vehicular pollutants. For communities where the effectiveness rating is nearer to 0.50, the level of emissions reduction is closer to 10 percent of the total.

Emissions reductions at the level of mitigation achievable for the estimated effectiveness factors for the San Miguel Ranch range from 8 percent for ROG to 10 percent for all other vehicular pollutants. Table 5.3 demonstrates that, while the degree of "excess" emissions is somewhat lowered, none of the emissions categories that exceed significance thresholds can be reduced to below the appropriate threshold with mobile source mitigation measures.

#### 5.5 Stationary Source Emissions

Project-related energy consumption will cause limited amounts of combustion-related (mainly NO<sub>x</sub>) to be generated. Energy consumption emissions for San Miguel Ranch from electrical power plants and from natural gas combustion in furnaces, water heaters and other devices represent a small fraction of the total project pollution burden. Inclusion of stationary source emissions will increase total NO<sub>x</sub> emissions by approximately 15 percent, but will add only 1-2 percent to all other pollutants. Addition of the stationary source component does not change any conclusions

**TABLE 5.3**

**MITIGATED VEHICULAR EMISSIONS  
(lbs/day)**

<u>Source</u>	<u>ROG</u>	<u>CO</u>	<u>NOx</u>	<u>PM-10</u>	<u>SOx</u>
Unmitigated total	239.2	2067.3	564.0	255.9	25.5
Mitigated Total	220.0	1867.6	509.6	231.2	23.0
Percent Reduction	- 8%	- 10%	- 10%	- 10%	- 10%
Significance Threshold	100.	550.	100.	100.	100.
Exceeds (?)	Yes	Yes	Yes	Yes	No

Source: URB7G Computer Model

\* = after mitigation

regarding impact significance. Because the mobile source contribution to the total burden is so dominant, mitigation measures that reduce trip generation and miles traveled are far more effective than those measures aimed at energy conservation.

Secondary emissions from general development will result during construction (aggregate and building materials manufacture, paints and solvents, power consumption, etc.) and operations (utility equipment, household products, cooking, etc.). These emissions are generally too small to be quantifiable on an individual household or an individual project basis. However, as SDAPCD emissions control programs encompass ever smaller source categories, even sources such as paint, mowers or insecticide sprays could ultimately be controlled.

## **6.0 IMPACT MITIGATION**

Possible impact significance was identified for construction dust (PM-10) and equipment NO<sub>x</sub>, and for operational vehicular and stationary source emissions.

The City of Chula Vista AQIP program does not distinguish between severity of significance. Any emissions will incrementally impede attainment of standards, and should therefore be mitigated to the extent feasible within a constraint of a reasonable cost benefit.

### **6.1 Roles and Responsibilities**

In order for the plan to be effective, it is necessary to clearly assign appropriate roles and responsibilities to all of the participants in the development and occupancy phases of projects within San Miguel Ranch SPA. There are three primary groups involved: developer/builders, government/service agencies, and future residents/tenants. Each has an important role to play, as described below.

#### **6.1.1 Developer/Builders**

The master developer, Trimark Pacific - San Miguel LLC, is providing the basic planning, design, and management of this program. Community level transportation facilities, vehicular and non-vehicular, will be implemented by the master developer.

Individual builders may construct homes according to the standards set by the master developer (and the City) and will be responsible for energy planning and management within their own project. Builders will also be the primary communicators with home buyers. In this role, they will be responsible for identifying the energy conservation features incorporated in the project, and educating home buyers regarding a continuing conservation effort.

#### **6.1.2 Property Owners/Residents/Tenants**

The long term success of the air quality mitigation effort rests with residents who choose their own modes of transportation, driving habits and lifestyles. In the aggregate, choices by residents/tenants affect the air quality in the region more than any effort by the City or developer.

Generally, commercial and industrial are the land uses which have significant opportunities to incorporate air quality/transportation mitigation measures because of the concentrated number of automobile trips associated with them. The decision to utilize public transit or non-vehicular transportation will rest with



future residents, influenced by the availability and convenience of such facilities provided in the project.

### **6.1.3 Government Service Agencies**

The City of Chula Vista will review project plans and monitor this plan. Because of its development approval role, the City can effectively enforce transportation phasing and other standards for new construction. Some local public transportation systems are operated under authority of the City in cooperation with regional operators. The City can also be a source of on-going education and air quality awareness through citizen communication programs.

The San Diego APCD will adopt regional air quality plans which will implement measures to meet state and federal standards. Although these plans will focus primarily on transportation issues, land use and indirect source guidelines will also be included. State law prohibits the intrusion of the APCD on the land use decision authority of the City, so it will be up to the City to implement any such guidelines.

The City of Chula Vista has developed design guidelines for project construction and operations that best meet the objectives of the AQIP. An optimally effective AQIP is one that best incorporates these guidelines within the constraints of project scope, location, character and other emissions-determining features. Because trip diversion to non-single occupant vehicle modes is far more effective for industrial or high density commercial uses served by multiple types of transit opportunities, emissions reduction potential from AQIP implementation for predominantly residential development in the eastern Chula Vista growth area is very limited. Each of the following candidate design measures must therefore be evaluated and integrated into the SPA as fully as possible if any measurable benefits are to accrue.

## **6.2 AQIP Implementation Strategies**

A variety of air quality impact mitigation measures have previously been adopted as part of General Development Plan (GDP) environmental clearance. Adopted measures in the GDP Subsequent EIR (95-04) are therefore incorporated into this AQIP as required measures. These measures were also previously again incorporated into San Miguel Ranch SPA-Level SEIR (97-02) with one modification. This AQIP identifies those measures, and then provides additional candidate measures suggested for adoption under the AQIP process.

Other agencies require construction practices that have air pollution reduction consequences. The San Diego APCD requires that construction dust be controlled to prevent the creation of a

nuisance. State building insulation standards require that buildings achieve a minimum energy efficiency and that new appliances meet State-specified efficiency ratings. Because these are not discretionary actions, they are not identified as mitigation measures or as AQIP components.

#### **6.2.1 Required AQIP Strategies**

##### **6.2.1.1 Construction Emissions**

1. Heavy-duty construction equipment with modified combustion/fuel injection systems for emissions control shall be utilized during grading and construction.
2. Disturbed areas shall be hydroseeded, landscaped, or developed as soon as possible and as directed by the City to reduce dust generation.
3. Trucks hauling fill material shall be covered.
4. A 20 mile-per-hour speed limit shall be enforced on unpaved surfaces.
5. To control dust raised by grading activities, the graded area shall be watered twice a day. Other mitigation measures shall be considered and implemented upon City approval. Such measures may include, but are not limited to, phasing grading so relatively smaller areas are exposed and revegetating graded areas as rapidly as possible.

##### **6.2.1.2 Site Operations**

6. All swimming pools shall use solar energy with back-up low NO<sub>x</sub> water heaters.
7. Low-NO<sub>x</sub> commercial-size water heaters shall be installed in all the larger on-site facilities.
8. Residential and larger facility gas-fired furnaces shall be outfitted with heat transfer modules providing a 70 percent reduction in NO<sub>x</sub> emissions.
9. The project applicant shall prepare an Air Quality Improvement Plan (AQIP) that:
  - a. Provides an analysis of air pollution impacts that would result from the project;

- b. Demonstrates the best available design to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled;
  - c. Includes implementation of appropriate traffic control measures and other direct or indirect means of reducing emissions; and
  - d. Establishes a monitoring program.
10. A park-and-ride facility shall be implemented within the project area in proximity to SR-125.
  11. The applicant shall provide facilities such as turnouts, shelters, and other amenities to support increased bus service in the vicinity of the project.
  12. The project shall incorporate bicycle lanes along designated roads within the project.
  13. The project shall incorporate all feasible, relevant, and appropriate mitigation measures developed in the RAQS.
  14. Garages shall be wired for 220 volts to accommodate charging of electric vehicles when such vehicles become commercially available in the next decade.

#### 6.2.2 Additional Candidate Strategies

Implementation of the following additional candidate strategies, adopted as part of the AQIP approval process, will be the joint responsibility of both individual developers and the City of Chula Vista. Adopted candidate construction activity measures will be included as conditions of any grading permits and monitored by the City of Chula Vista Engineering Department. Operational measures, including the suggested participation in an enhanced energy conservation program, would be included within the SPA Design Guidelines. Monitoring of compliance would be the responsibility of the City of Chula Vista Planning and Building Department in both the approval of the guidelines and in the actual guideline implementation.

### 6.2.2.1 Project Construction

#### Clearing/Grading

- a. Maintain soil moisture at a minimum of 12 percent for any cut-and-fill areas within 100 feet of any adjacent property line to the depth of the cut.

#### Track-Out Control

- a. Apply chemical stabilizer or pave the last 100 feet of internal travel path within a construction site prior to public road entry, or,
- b. Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads.
- c. Remove any visible track-out into traveled public streets within 30 minutes of occurrence.
- d. Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred.
- e. Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads.

#### High Wind Operations

- a. Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.

### 6.2.2.2 Site Operations

#### Energy Consumption

- Incorporate enhanced energy conservation features in excess of the minimum requirements of Title 24 of the California Code of Regulations. Consider adoption of the SDG&E "Comfort Wise," EPA's Energy Star, or Louisiana Pacific's "Engineered for Life" programs, or similarly enhanced energy conservation design standards.
- Install energy efficient landscaping in all development common areas.
- Utilize passive design concepts that make use of the naturally mild climate to increase energy efficiency.

- Utilize energy-efficient lighting wherever cost-effective to do so.
- Provide a gas connection to fireplaces to encourage use of log lighters or of artificial fireplace logs.
- Provide an outside natural gas connection to encourage use of gas-fired barbecues.
- Provide outside electrical outlets to encourage use of electrically powered yard maintenance equipment.

### Trip/VMT Reduction

- Provide cut-through walkways or bike paths to the school site to minimize student travel distance.
- Designate a rideshare/environmental coordinator for San Miguel Ranch to disseminate information on ridesharing/mass transit opportunities, recycling and energy conservation for employees and residents within the development.
- Insure the availability of more than two phone lines to each home for in-home offices and other telecommuting needs.

### 6.2.3 City of Chula Vista AQIP Guidelines

The City of Chula Vista has developed guidelines for development of an AQIP that incorporates site design features that best optimize the potential to achieve meaningful trip reduction. Table 6.1 summarizes the design phase measures that are important at the master plan and development plan level. Table 6.1 identifies those planned project features that specifically address the City's AQIP objectives.

### 6.3 Implementation Documentation

#### 1. Street/Circulation Design with Pedestrian/Bicycle Orientation

The San Miguel Ranch (SMR) SPA Plan submitted to the City emphasizes the use of an extensive trail system and connecting activity centers to enable non-vehicular travel. The project is designed with a single loop collector connecting the majority of residential development and simplifying internal circulation. The clustering and connectivity of "activity uses" at a central location within the community encourages the use of non-vehicular modes of travel to these destinations.

**TABLE 6.1****DESIGN PHASE AIR POLLUTION MITIGATION CHECKLIST**

<u>Measure:</u>	<u>Applicable to This Project</u>	<u>Incorporated Into SMR</u>	<u>Notes*</u>
Street Circulation/Connectivity	Yes	Yes	1
Housing Near Transit	Yes	Yes	2
Land Use Mix/Proximity	Yes	Yes	3
Pedestrian & Bicycle Orientation	Yes	Yes	4
Transit-Oriented Design	Yes	Yes	5
Reduce Commercial Parking	Yes	Yes	6
Bicycle/Transit Integration	Yes	Yes	7
Energy Efficient Landscaping	Yes	Yes	8
Other Trip Reduction Measures	Yes	Yes	9

\* - See Implementation Documentation (Section 6.4)

2. Housing/Employment Density Near Transit

The project circulation components will improve routes for transit. Transit stops can be incorporated where desired at key intersections. The current plan anticipates transit stops along East "H" Street and Mount Miguel Road on the eastern edge of the project area. The designation of transit stops and initiation of service are the responsibility of the City transit service. The clustering of transit destinations (e.g., schools, shopping and employment) within the SMR community encourages the use of public transit and simplifies routing and scheduling.

The provision of a Park-and-Ride facility in proximity to the project is anticipated. Such a Park-and-Ride facility at East "H" Street and Mount Miguel Road could also provide a staging area for carpools, vanpools, and transit vehicles. This facility should be incorporated into a city-wide system of similar facilities coordinated with public transit routes, including future light rail corridors.

3. Land Use Mix/Proximity

The SMR Sectional Planning Area, adopted by the City, includes job opportunities (SMR Commercial Center), recreation (SMR Community Park) education, retail and public facilities (churches) within the community. All of these sites are immediately adjacent or nearby within the community. Full implementation of the community plan would minimize the length and number of automobile trips because of the range of opportunities and services available within the community.

4. Site Design with Pedestrian/Bicycle Orientation

As noted above, the SMR community as a whole has been designed with an extensive and convenient pedestrian, equestrian and bicycle trail system (see Trails Plan). In order to improve walking/biking experience along major streets, meandering walks or non-contiguous sidewalks both with landscaped areas separating the path from traffic are provided on all the major streets in the project (see Street Section in Chapter V of the SPA Plan). Pedestrian/bicycle "short cuts" have been included in the plan via open cul-de-sacs which provide more direct routes to neighborhood/community destinations and encourage use of alternative modes of

transportation. In order to enhance the possible benefit of this measure, City of Chula Vista staff has recommended that the SPA PC District regulations be revised to require that commercial and multi-family development in SPA districts M, N, and A obtain approval of a future site plan and architectural review. Staff has also requested that the SPA Design Guidelines set criteria for development of those sites to achieve an integrated design that promotes pedestrian use and interconnection with the adjoining Rolling Hills Ranch project.

5. Site Design with Transit Orientation

Placement of buildings and building entrances, particularly larger multi-family and non-residential buildings, can encourage transit or alternative transportation modes. The SPA Plan does not specify building locations. Hence, this issue can be addressed in the Tentative Map and Site Plan/Design Review processes when greater project detail is available. SPA District A at 17.9 dwelling units per acre, is located near the proposed bus stop adjacent to the commercial center at Proctor Valley Road and Mount Miguel Road. The other higher density use (SPA District B) is located near the SR-125 ramp.

6. Reduced Commercial Parking

The SMR SPA includes one commercial area. Parking requirements are set forth in the SMR SPA Planned Community District Regulations which have been submitted to the City.

7. Bicycle Route Integration with Transit & Employment

Bike lanes are designated on Mount Miguel. On other internal streets, bicyclists will be readily able to share the road with motor vehicles due to the low volumes and limited speeds allowed. Project bicycle routes connect to regional systems as indicated in the Circulation Element of the General Plan and provide access to all regional destinations including the park-and-ride facility, and nearby commercial and off-site employment centers.

8. Energy Efficient Landscaping

Shading with the proper landscaping can reduce the amount of energy required for air conditioning which



can, in turn, reduce emissions at power generating stations. Landscaping is addressed in a conceptual manner in the Design Guidelines component of the SPA submittal. Specific details provided in the Site Plan/Design Review submittals will be used to evaluate proposed landscaping in terms of its shading potential. In general, such shading is most effective where group parking and larger buildings which are air conditioned all day long are involved (i.e., non-residential uses).

A CO<sub>2</sub> Reduction Plan is presently pending before the City of Chula Vista City Council. The CO<sub>2</sub> Reduction Plan, if adopted, recommends measures and criteria requiring that future landscape plans provide energy-efficient landscaping.

#### 9. Other Trip Reduction Measures

Commuting is one of the largest contributors to air pollution. Providing telecommuting space to work at home via computer link can reduce commute trips, traffic congestion, and driving cost. Because this is becoming a popular working alternative, many new homes now include areas designed for computer or home office use. Builders in SMR will continue to provide such features as the market dictates.

The Master Developer should also work with the cable TV provider to include high speed electronic communications connections through the cable TV system, including high-speed Internet access. This service is currently available in adjacent neighborhoods. Computer and communication technology is constantly improving and predicting the next breakthrough is impossible. However, the Master Developer should commit to working closely with electronic communication access providers and guest builders to assure new homes are not technologically obsolete when they are built.

Electric or other alternate fuel vehicles are anticipated to achieve substantial market penetration during SMR buildout. Provision of 220-volt access in parking facilities in both single- and multi-family development will preclude the need to later retrofit parking areas. The absence of 220-V power might hinder the rate of electric vehicles being used for commuting needs. Because the fossil-fueled automobile is the dominant source of project-related impact, any measure that eliminates travel with fossil-fueled internal combustion engines provides the highest possible air quality benefit.

## REFERENCES

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SANDAG; Regional Quality of Life Factors, Standards and Objectives (Agenda Report RB-19); November 16, 1990.

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Willdan Associates and Bud Gray; Draft Growth Management Program - City of Chula Vista; August 1990.

**APPENDIX**  
**URB7G Computer Model**  
**(Input/Output)**

URBEMIS 7G: Version 3.1

File Name: SMR.URB  
 Project Name: San Miguel Ranch  
 Project Location: San Diego County

DETAILED REPORT  
 (Pounds/Day - Summer)

Total Land Use Area to be Developed (Estimated): 286 acres  
 Retail/Office/Institutional Square Footage: 1076520  
 Single Family Units 994 Multi-family Units 763

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10
Demolition				0.00
Site Grading	0.00	0.00	-	0.00
Const. Worker Trips	10.95	15.48	29.37	2.97
Stationary Equip.	0.34	0.27	-	0.02
Mobile Equip. - Gas	0.00	0.00	-	0.00
Mobile Equip. - Diesel	0.00	0.00	-	0.00
Architectural Coatings	7025.95			
Asphalt Offgasing	0.26			
TOTALS (ppd, unmitigated)	7037.49	15.76	29.37	2.99

CONSTRUCTION EMISSION ESTIMATES

Source	ROG	NOx	CO	PM10
Demolition				0.00
Site Grading	0.00	0.00	-	0.00
Const. Worker Trips	10.95	15.48	29.37	2.97
Stationary Equip.	0.34	0.27	-	0.02
Mobile Equip. - Gas	0.00	0.00	-	0.00
Mobile Equip. - Diesel	0.00	0.00	-	0.00
Architectural Coatings	7025.95			
Asphalt Offgasing	0.26			
TOTALS (ppd, mitigated)	7037.49	15.76	29.37	2.99

Construction-Related Mitigation Measures

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	PM10
Natural Gas	3.10	40.76	17.08	0.08
Wood Stoves - No summer emissions				
Fireplaces - No summer emissions				
Landscaping	2.93	0.21	22.98	0.06
Consumer Prdcts	85.96			
TOTALS (ppd, unmitigated)	91.98	40.97	40.06	0.14

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Mitigated)

Source	ROG	NOx	CO	PM10
Natural Gas	2.19	28.35	15.79	0.05
Wood Stoves - No summer emissions				
Fireplaces - No summer emissions				
Landscaping	2.93	0.21	22.98	0.06
Consumer Prdcts	85.96			
TOTALS (ppd, mitigated)	91.07	28.57	38.77	0.11

Area Source Mitigation Measures

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2010    Temperature (F): 85    Season: Summer

EMFAC Version: EMFAC7G (10/96)

Summary of Land Uses:

Unit Type	Trip Rate	Size	Total Trips
Single family housing	10.00 trips / dwelling unit	994.00	9,940.00
Condo/townhouse genera	8.00 trips / dwelling unit	763.00	6,104.00
Elementary school	0.90 trips / students	900.00	810.00
Community Parks	50.00 trips / acre	35.10	1,755.00
Neighborhood Shopping	700.00 trips / acre	13.90	9,730.00
Place of worship (week	36.60 trips / 1000 sq. ft.	9.30	340.38

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Duty Autos	75.00	1.16	98.58	0.26
Light Duty Trucks	10.00	0.13	99.54	0.33
Medium Duty Trucks	3.00	1.44	98.56	
Lite-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Med.-Heavy Duty Trucks	1.00	19.56	40.00	40.44
Heavy-Heavy Trucks	5.00			100.00
Urban Buses	2.00			100.00
Motorcycles	3.00			
		100.00 % all fuels		

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.0	6.8	6.9	10.0	6.8	6.8
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip Speeds (mph)	35	35	35	35	35	35
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Community Parks				20.0	10.0	70.0
Neighborhood Shopping				5.0	2.5	92.5
Place of worship (weekend)				3.0	1.5	95.5

**UNMITIGATED EMISSIONS**

	ROG	NOx	CO	PM10
Single family housing	88.16	203.54	770.35	92.48
Condo/townhouse general	56.39	124.99	473.06	56.79
Elementary school	18.73	15.89	56.52	7.21
Community Parks	12.36	34.42	122.46	15.63
Neighborhood Shopping	61.36	178.97	623.39	80.96
Place of worship (weekend	2.26	6.21	21.55	2.81
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>239.25</b>	<b>564.01</b>	<b>2067.32</b>	<b>255.88</b>

Includes correction for passby trips.

Does not include double counting adjustment for internal trips.

**MITIGATED EMISSIONS**

	ROG	NOx	CO	PM10
Single family housing	80.90	183.45	694.12	83.34
Condo/townhouse general	51.93	112.66	426.25	51.18
Elementary school	18.25	14.48	51.53	6.57
Community Parks	11.32	31.37	111.65	14.24
Neighborhood Shopping	55.58	162.05	564.56	73.31
Place of worship (weekend	2.05	5.61	19.50	2.54
<b>TOTAL EMISSIONS (lbs/day)</b>	<b>220.04</b>	<b>509.62</b>	<b>1867.59</b>	<b>231.18</b>

Includes correction for passby trips.

Does not include double counting adjustment for internal trips.



ENVIRONMENTAL FACTORS APPLICABLE TO THE PROJECT

Pedestrian Environment

- 2 Side Walks/Paths: Most Destinations Covered
- 1 Street Trees Provide Shade: Moderate Coverage
- 2 Pedestrian Circulation Access: Some Destinations
- 3 Visually Interesting Uses: Moderate Number and Variety
- 2 Street System Enhances Safety: Most Streets
- 1 Pedestrian Safety from Crime: Moderate Degree of Safety
- 1 Visually Interesting Walking Routes: Moderate Level

12.0 <- Pedestrian Environmental Credit

12.0 /19 = 0.63 <- Pedestrian Effectiveness Factor

Transit Service

20 Transit Service: 15-30 Minute Bus within 1/4 Mile

20.0 <- Transit Effectiveness

12.0 <- Pedestrian Factor

32.0 <-Total

32.0 /110 = 0.29 <-Transit Effectiveness Factor

Bicycle Environment

- 5 Interconnected Bikeways: High Coverage
- 2 Bike Routes Provide Paved Shoulders: Some Routes
- 0.5 Safe Vehicle Speed Limits: Few Destinations
- 2 Safe School Routes: Primary and Secondary Schools
- 1 Uses w/in Cycling Distance: Some Uses
- 1 Bike Parking Ordinance: Requires Unprotected Bike Racks

11.5 <- Bike Environmental Credit

11.5 /20 = 0.57 <- Bike Effectiveness Factor

MITIGATION MEASURES SELECTED FOR THIS PROJECT  
 (All mitigation measures are printed, even if  
 the selected land uses do not constitute a mixed use.)

Transit Infrastructure Measures

% Trips Reduced	Measure
15	Credit for Existing or Planned Community Transit Service
2	Provide Transit Shelters Benches
0.5	Provide Street Lighting
0.5	Provide Route Signs and Displays
1	Provide Bus Turnouts
19	<- Totals

Pedestrian Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
2	Credit for Surrounding Pedestrian Environment
3	Mixed Use Project (Residential Oriented)
1	Provide Sidewalks and/or Pedestrian Paths
1	Provide Direct Pedestrian Connections
0.5	Provide Pedestrian Safety
0.5	Provide Street Furniture
0.5	Provide Street Lighting
0.5	Provide Pedestrian Signalization and Signage
9	<- Totals

Pedestrian Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
2	Credit for Surrounding Pedestrian Environment
2	<- Totals

Bicycle Enhancing Infrastructure Measures (Residential)

% Trips Reduced	Measure
7	Credit for Surrounding Bicycle Environment
2	Provide Bike Lanes/Paths Connecting to Bikeway System
9	<- Totals

Bike Enhancing Infrastructure Measures (Non-Residential)

% Trips Reduced	Measure
5	Credit for Surrounding Area Bike Environment
5	<- Totals

Operational Measures (Applying to Commute Trips)

% Trips Reduced	Measure
0	<- Totals

Operational Measures (Applying to Employee Non-Commute Trips)

% Trips Reduced	Measure
0	<- Totals

Operational Measures (Applying to Customer Trips)

% Trips Reduced	Measure
0	<- Totals

Measures Reducing VMT (Non-Residential)

VMT Reduced Measure  
0 <- Totals

Measures Reducing VMT (Residential)

VMT Reduced Measure  
0 <- Totals

Total Percentage Trip Reduction  
with Environmental Factors and Mitigation Measures

Travel Mode	Home-Work Trips	Home-Shop Trips	Home-Other Trips
Pedestrian	0.63	2.50	2.50
Transit	5.53	1.22	1.49
Bicycle	5.18	5.18	5.18
Totals	11.33	8.89	9.17

Travel Mode	Work Trips	Employee Trips	Customer Trips
Pedestrian	0.14	1.26	1.26
Transit	5.53	0.11	5.53
Bicycle	2.87	2.87	2.87
Other	0.00	0.00	0.00
Totals	8.54	4.25	9.67

**SAN MIGUEL RANCH**  

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*Sectional Planning Area Plan*

**Volume 7**  
**Water Conservation Plan**

***Project Applicant:***

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85 Argonaut, Suite 205  
Aliso Viejo, CA 92656

***Prepared By:***

Wilson Engineering  
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**Approved**

**October 19, 1999**  
Resolution No. 19631

**WATER CONSERVATION PLAN  
FOR  
SAN MIGUEL RANCH**

**December 1, 1998**

**Wilson Engineering  
Consulting Engineers  
703 Palomar Airport Road  
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Carlsbad, CA 92009  
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**Job Number: 509-025**

# TABLE OF CONTENTS

	PAGE NO.
INTRODUCTION .....	1
PURPOSE .....	2
WATER SUPPLY .....	3
METROPOLITAN WATER DISTRICT GUIDELINES .....	3
PROJECTED WATER USE .....	4
WATER CONSERVATION MEASURES .....	6
INDOOR MEASURES .....	6
Ultra-Low Flow Showerhead .....	6
Water Efficient Clothes Washer .....	7
Water Efficient Dishwasher .....	7
Water Pressure Reduction .....	7
Hot Water Pipe Insulation .....	7
Recirculating Hot Water Pumps .....	7
Leak Detection Tablets .....	8
OUTDOOR MEASURES .....	8
Low Water Use Landscaping .....	8
Xeriscaping .....	8
Soil Moisture Sensors .....	8
Automatic Timer Shutoffs for Manual Hose System .....	9
Other Systems .....	9

# TABLE OF CONTENTS

	PAGE NO.
OTHER MEASURES .....	9
Water Conservation Guide .....	9
Recycled Water .....	10
Graywater .....	11
WATER CONSERVATION COSTS .....	14
WATER RATE .....	17
TYPICAL WATER CONSERVATION PLAN .....	18
RECOMMENDATIONS .....	19
REFERENCES .....	20
APPENDICES	
APPENDIX A	SECTION 3107 OF THE METROPOLITAN WATER DISTRICT ADMINISTRATIVE CODE
APPENDIX B	WATER CONSERVATION METHODS

## LIST OF TABLES

	PAGE NO.
Table 1	Projected Potable Water Demands for San Miguel Ranch . . . . . 5
Table 2	Projected Recycled Water Demands for San Miguel Ranch . . . . . 5
Table 3	Costs for Water Conservation Devices . . . . . 15
Table 4	San Miguel Ranch Water Conservation Measures . . . . . 16
Table 5	Potential Water Conservation Plan for San Miguel Ranch . . . . . 18



## INTRODUCTION

In recent years, due to the drought conditions in California, the subject of water conservation has been given increased attention. The growing awareness of the need and value of water conservation has been sparked by local and regional water purveyors concerned about meeting the water demands of their customers during a time when water supplies have diminished. Water conservation provides an alternative approach to the problem of finding new water sources to meet the water demand for a proposed community. The intent of water conservation is to manage water demand so that the customers receive adequate service but use less water.

Much has been done to educate consumers about the serious implications of a long-term drought and the need for water conservation, but there is a practical limit to the percentage reduction of water use in established communities. This limit is a result of the types of plumbing fixtures installed in existing homes as well as the difficulty in altering consumers' established patterns of water use. Any water conservation effort, voluntary or mandatory, requires the cooperation of the public. Public information should be utilized to inform and convince the consumer that a change in personal water use habits is in everyone's best interest. The best long term results are expected to be achieved by educating children in water conservation.

In recent years, the private development sector has become more attuned to the concerns of water availability and has recognized the value of addressing water conservation issues throughout planned development projects. By incorporating low water use plumbing fixtures, promoting drought tolerant landscaping, and providing educational materials to homeowners within the development project, private developments can do much to cultivate an interest in water conservation and establish new patterns of water use. These efforts can have significant impacts with regard to reducing the need for securing and importing larger quantities of water for use in San Diego County.

## PURPOSE

This report presents a review of presently available technologies and practices which result in water conservation in primarily residential developments. The purpose of this report is to determine which of these technologies and practices are economically efficient and most cost effective to implement within the San Miguel Ranch.

The San Miguel Ranch project is located in the County of San Diego and is within the sphere of influence of the City of Chula Vista. The project is bounded to the south and west by Proctor Valley Road and to the east by the Salt Creek Ranch project. The future extension of Freeway 125 will bisect the San Miguel Ranch project.

Based on an analysis of cost versus benefit, this report will present recommendations for water conservation measures which should be incorporated into the planning and design of San Miguel Ranch. This water conservation plan will identify the incremental costs associated with installing water saving technologies and present the long-term benefits with regard to water use reduction for the project.

Proposed development within the San Miguel Ranch boundary includes mixed density residential dwelling units, one school, commercial areas, and parks. Because the majority of this project consists of residential development, the emphasis of this report will be on urban water conservation measures.

Approximately half of the water used by residences in California is used outdoors. For this reason, several options are presented that serve to reduce outdoor water use. The latest water conservation devices will be presented along with an evaluation of their feasibility. A detailed discussion on the use of graywater as a means of water conservation is also provided. In addition to evaluating residential water conservation devices, the benefits of using recycled water for the irrigation of parks and other landscaped areas will be discussed.

Although not covered in detail, there are several secondary benefits to conserving water that should be kept in mind when reviewing material in this report. These benefits include reduced sewage flows, reduced natural gas use, and reduced electricity use. Using less water in the shower, for example, reduces the amount of water input into the sewer system and reduces the amount of energy required to heat the water.

## **WATER SUPPLY**

The Otay Water District is the local water agency that will supply potable water and recycled water to San Miguel Ranch. The Otay Water District relies solely on the San Diego County Water Authority (SDCWA) for its potable water supply. The SDCWA is the largest of 27 member agencies of the Metropolitan Water District of Southern California (MWD), which is the primary importer of domestic water in Southern California. The SDCWA has recently entered into an agreement that would allow them to purchase water from the Imperial Valley Agricultural District; however, SDCWA has not yet been supplied any water by this source.

The current supply of recycled water is from the Ralph W. Chapman Water Recycling Facility. This facility has an existing capacity of 1.3 million gallons per day (mgd) and is expected to be expanded to its ultimate capacity of 3.85 mgd in the future. Construction of the South Bay Wastewater Treatment Plant is underway and will provide up to 6.0 mgd of recycled water to the Otay Water District.

## **METROPOLITAN WATER DISTRICT GUIDELINES**

The San Miguel Ranch Environmental Impact Report requires the developer to provide information on how the project will satisfy MWD's Water Use Efficiency Guidelines. These guidelines are listed in Section 3107 of the MWD Administrative Code. A copy of Section 3107 is provided in Appendix A.

The San Miguel Ranch project will be designed with water conservation measures which meet the intent of the water use efficiency guidelines. For example, potable water demand will be minimized by installing toilets which use a maximum of 1.6 gallons per flush and low flow faucets which use 2.2 gallons per minute. The demand for potable water will be further reduced by irrigating parks and open-space with recycled water.

### PROJECTED WATER USE

Water use is affected by, among other things, climate and the type of development. In California, recent trends towards the construction of more multi-unit housing, the general reduction in residential lot size, and a number of local agency water conservation programs in effect are all tending to reduce per capita water consumption. Total water use within the boundaries of the San Diego County Water Authority is approximately 209 gallons per capita per day and total use within the boundaries of the Otay Water District is estimated at 208 gallons per capita per day<sup>1</sup>. These values take into account commercial, agricultural, and industrial water uses as well as residential use.

Table 1 provides the projected potable water demand for San Miguel Ranch. The total estimated potable water use is 0.64 mgd. Table 2 provides the projected recycled water demand for San Miguel Ranch. The City of Chula Vista's Policy Committee has restricted the use of recycled water to parks and open space. The estimated recycled water demand is 0.24 mgd. Potable water and recycled water use factors were taken from the April 1995 Otay Water District Water Resources Master Plan prepared by Montgomery Watson.

**Table 1**  
**Projected Potable Water Demands**  
**for San Miguel Ranch**

Land Use	Area, Acres	Unit Demand, ac-ft/ac-yr	Annual Demand, ac-ft/yr	Average Day Demands, mgd
Single-Family - Medium	169.4	1.5	254.1	0.23
Single-Family - High	159.1	2.0	318.2	0.280
Multi-Family	36.7	2.5	91.8	0.082
School	10.2	1.4	14.3	0.013
Commercial	18.1	2.0	36.2	0.032
<b>TOTAL</b>			<b>714.6</b>	<b>0.64</b>

**Table 2**  
**Projected Recycled Water Demands for**  
**San Miguel Ranch**

Land Use	Area, Acres	Percentage to be Irrigated	Irrigated Acreage	Recycled Water Irrigation Factor, gpd/ac	Average Recycled Water Demand, gpd
Irrigated Open Space	80	100	80	2,232	178,560
Park	21.4	100	21.4	2,232	47,722
School	10	20	2.0	2,232	4,464
Commercial	18	10	1.8	2,232	4,018
Parkway/ Landscaping	31	10	3.1	2,232	6,919
<b>TOTAL</b>					<b>241,683</b>

<sup>1</sup> A final determination has not yet been made on the amount of open space areas that will be irrigated on a permanent basis. For the purposes of this study, twenty-five percent of the project's open space areas were assumed to be permanently irrigated

## WATER CONSERVATION MEASURES

Implementing water conservation measures before the construction of a new development project provides an opportunity to include measures that might not be feasible or cost effective to retrofit within a developed area. There are several measures described below that would be expensive to retrofit, but may be cost effective if included in the initial construction. From the Department of Water Resources<sup>2</sup>, statistics on several indoor and outdoor water conservation measures were obtained and are listed along with a brief description below. The statistics represent results from surveys of manufacturers of the various water conservation devices. Indoor and outdoor measures are discussed separately.

The State and many local Governments have recently mandated a number of water conservation measures. The State of California requires faucets manufactured after March 20, 1992 to have a maximum flowrate of 2.2 gallons per minute. Prior to this date a maximum flowrate of 2.75 gallons per minute was permitted. The State also requires toilets installed in new developments to use a maximum of 1.6 gallons per flush. The prior efficiency standard for toilets was 3.5 gallons per flush.

### INDOOR MEASURES

**Ultra-Low Flow Showerhead** - Ultra-low flow showerheads reduce the flow rate for showers to 1.5 gallons per minute, whereas standard low flow showerheads use 2.5 gallons per minute. California regulations require that all showerheads sold in the state have a maximum flow rate of 2.5 gallons per minute. A survey conducted by the Department of Housing and Urban Development (HUD) found that standard low flow showerheads had an observed flow rate of 1.9 gpm and ultra low flow showerheads had an observed flow rate of 1.3 gpm. These numbers were used as the basis for evaluating the benefits of this device.

**Water Efficient Clothes Washer** - Efficient clothes washers are designed to reduce the amount of water used per load. Efficient clothes washers may use about 25 gallons per load, whereas standard washers use about 55 gallons per load. Additionally, a HUD survey found that the average rate of daily use for washers is 0.3 loads per person.

**Water Efficient Dishwasher** - Efficient dishwashers, like clothes washers, are designed to reduce the amount of water used per load. Efficient dishwashers use about 11 gallons per load versus standard dishwashers that use about 14 gallons per load. It is estimated that daily dishwasher usage averages 0.17 loads per person. Typically, dishwashers are supplied by the developer so it is their decision whether or not to install the more efficient machines.

**Water Pressure Reduction** - Pressure reducing valves are used to lower water consumption through system leakage by reducing the pressure head to between 50 and 60 psi. Lower water pressure also reduces the flow rate from faucets in wash basins resulting in more efficient use of the water. This device is mainly useful in areas where water pressure is greater than 60 psi. The water savings resulting from the installation of pressure reducing valves is estimated to be 3.0 percent of household water use.

**Hot Water Pipe Insulation** - Insulation can be installed around the hot water piping at a household to minimize the amount of time that the homeowner waits for hot water at a sink or bathtub faucet. This measure is expected to reduce water usage by approximately 1.5 gallons per person per day.

**Recirculating Hot Water Pumps** - Recirculating hot water pumps continuously circulate water from the household hot water heater through the hot water piping. This measure eliminates the water that is wasted while the homeowner waits for hot water at a sink or bathtub faucet. This measure can be expected to reduce household water usage by approximately 3.0 gallons per person per day.

Additional costs associated with this measure are for the recirculating pump and additional piping necessary to loop the system.

**Leak Detection Tablets** - Toilet leaks can be detected using leak detection tablets. Tablets are placed in the toilet tank and will cause water in the toilet bowl to change colors if a leak exists. This measure is applicable to existing residential developments and is not discussed further in this report.

## OUTDOOR MEASURES

**Low Water Use Landscaping** - The purpose of this measure is to replace the familiar ornamental plant imported from the east coast with plants that are more adapted to the hot and dry conditions of California. These plants require less water and, if irrigated properly, will result in water savings. This measure is especially attractive in new developments because low water use plants are no more costly to plant than the familiar ornamental plants. Under this measure, turf area is not reduced; the substitution is made in the border areas surrounding the turf. Water savings from low water use plants is estimated to be 7.5 percent of total household water use.

**Xeriscaping** - Xeriscaping involves several principles that all serve to reduce water use. These principles include reduction of turf area, incorporation of low water use plants, efficient irrigation, use of mulches to reduce evaporation from the soil, and appropriate maintenance. The limiting of turf size provides the most significant savings of water. Xeriscaping, while still attractive, can cut outdoor water use by 50 percent if maintained properly.

**Soil Moisture Sensors** - Soil moisture sensors for automatic electronic systems permit irrigation only when the turf needs water. Soil moisture sensors can



produce impressive water savings while permitting accurate and unattended irrigation. Soil moisture sensors are particularly effective for large turf areas such as those typically found in parks and multi-family residential developments. It is estimated that these devices can reduce outdoor water use in such turf areas by 25 percent.

**Automatic Timer Shutoffs for Manual Hose Systems** - In the event that a home is manually watered, automatic timer shutoffs are available for hoses so that it becomes convenient to irrigate more accurately. The hose is shut off automatically after the desired amount of time rather than when the homeowner returns to shut it off. The effectiveness of this measure is further increased if the homeowner has a knowledge of how long to irrigate. This device is expected to reduce outdoor water use by 15 percent for houses using hoses to irrigate.

**Other Systems** - There are other types of irrigation systems available for use, but statistics on their effectiveness in saving water were not readily available. An automatic timer controlled sprinkler system is available and serves to eliminate the possibility of forgetting to turn off the sprinklers. Drip irrigation systems are also available. These systems reduce evaporation losses and losses due to wind blown spray. In the past few years there have been amendments to the zoning ordinance which establishes regulations and guidelines to conserve water on outdoor landscaping in projects requiring County approval. This trend is expected to continue to control the amount of water that will be used outdoors in residential projects

## OTHER MEASURES

**Water Conservation Guide** - It is a good idea to produce a landscape watering guide and distribute it to the homeowners of a new development project. The guide is designed to educate the homeowner on the efficient irrigation of landscaping. Studies have shown that increased public awareness and information is very important in an effective water conservation plan<sup>3</sup>. Besides efficient

irrigation, a home water conservation guide can include information on general conservation techniques, such as listing commonly available drought resistant plants, and explaining how to install efficient irrigation systems such as drip irrigation.

A sample of some tips that should be included in a water conservation guide are listed below:

- Select drought resistant plants.
- Irrigate early in the morning.
- Use drip irrigation as opposed to sprinklers to reduce evaporation losses.
- Build basins around trees and plants to avoid water run off.
- Use mulch around plants to absorb and retain water better.
- Sweep sidewalks and patios rather than hosing them off.
- Do not leave water running while washing car
- Do not leave water running while washing dishes, shaving, or brushing teeth.
- Check for and fix leaks in pipes, faucets, and toilets.

This list is not intended to be all inclusive, but should provide some ideas on what to include in a water conservation guide. A water conservation guide is expected to reduce total household water usage by 10 percent.

**Recycled Water** - The Ralph W. Chapman Water Recycling Facility provides tertiary treatment to influent raw sewage which meets Title 22 requirements for nonrestricted recreational use and the broadest category of landscape irrigation.

The Otay Water District requires that recycled water be utilized for the irrigation of parks, parkway landscaping, and other common areas requiring irrigation. The use of recycled water for irrigation at single family residences is not yet allowed. As detailed in Table 2, the use of recycled water on San Miguel Ranch is expected to offset potable water usage by an average of 0.24 mgd.

**Graywater** - Graywater is untreated household waste water which has not come into contact with toilet waste. Graywater includes used water from bathtubs, showers, bathroom sinks, clothes washers, and laundry tubs. Graywater does not include waste water from toilets, kitchen sinks, dishwashers, or laundry water from soiled diapers.

California's graywater standards are part of the Uniform Plumbing Code, making it legal to use graywater everywhere in California. The Standards were developed and adopted in response to Assembly Bill 3518, the Graywater Systems for Single Family Residences Act of 1992. Recent changes in the 1997 Uniform Plumbing Code have increased the potential for using graywater. The most significant changes are that graywater systems can now be used in commercial, industrial, and multi-family projects whereas they were previously only allowed at single family residences. Also, only one irrigation zone is now required, instead of the previous requirement of two zones. An irrigation zone is the square footage of irrigation area required by the Uniform Plumbing Code based on the estimated graywater flow.

The largest concern regarding the use of graywater are the health issues associated with the potential presence of pathogens. Although the potential health risks associated with exposure to graywater is undefined, it is prudent to take a cautious approach. For this reason, the use of graywater is currently limited to subsurface irrigation systems. These systems typically consist of subsurface drip irrigation or mini-leach field systems.

In reviewing all of the information available on the use of graywater, our goal was to maintain an objective view on the feasibility of using graywater on this

particular project. In researching this subject, we have identified numerous advantages and disadvantages regarding the use of graywater as presented below.

### **Advantages**

1. The largest advantage of graywater use is the potential water savings. It is estimated that a graywater system can conserve approximately 25 gallons per person per day. Because irrigation demands are seasonal, however, it is expected that graywater will be disposed of via the sewer system during periods of rainy weather. For the purposes of this report, we have assumed that graywater can be utilized 80 percent of the time and, therefore, the average daily water savings has been estimated at 20 gallons per day per person.
2. In practical applications, the use of graywater has not had a detrimental impact to the soil which it has been applied. The consensus is that soil is contaminated, whether irrigated with graywater or not.
3. As with other water conserving devices, a secondary benefit to using graywater will be reduced sewage flows that have to be conveyed and treated.
4. The City of Chula Vista will allow a 25 percent reduction in the sewer service charge for homes utilizing a graywater system.

### **Disadvantages**

1. Although technically feasible, the use of a home graywater system would only be economically attractive under extreme water cost or extreme wastewater disposal conditions.

2. Installation of a graywater system requires a building permit. To obtain a permit usually requires a plot plan, details of construction to ensure code compliance, and soils information. In addition, a successful graywater system is dependent on numerous factors including topography, climate, soil permeability, soil type, and irrigation requirements.
3. Even if home graywater system installations become more widespread, the sewer conveyance and treatment facilities will still be required to have the same capacity. This is primarily due to the fact that during the winter months, graywater will generally be diverted to the sewer system. Also, there is no assurance that a homeowner will not abandon a graywater system at some point in the future.
4. Although the operation and maintenance requirements for a home graywater system are relatively simple, homeowners may not be willing or able to perform them regularly and poor operation could result. A typical maintenance schedule would be performed quarterly and would consist of cleaning an influent screen, washing cartridge filters, replenishing chlorine tablets and removing sludge from the washwater storage tank. Lack of proper maintenance can result in clogged irrigation drippers, pump damage, or other system problems. For this reason, maintenance contracts with plumbing contractors or other trained personnel should be considered.
5. Another limitation to the use of graywater for irrigation is its salinity. Graywater has a high sodium content and is consequently less desirable for irrigation. Some of the common plants that have been identified as not suitable for irrigation with graywater include azaleas, violets, impatiens, begonias, ferns, gardenias, and primroses. This limitation can be addressed somewhat by the laundry detergent and cleaners

that the homeowner uses. Special detergents have been developed specifically for use with graywater systems.

- 6 As the implementation of graywater systems increases, the remaining flow in the sewer system may be insufficient to carry solids through the sewer collection system. This can result in anaerobic conditions which can damage sewer lines and treatment plants. These types of problems would only be expected as graywater system installation becomes widespread, but represent a significant concern to sewage system operators.

In order to evaluate the economic feasibility of using graywater on this project, some costs for a typical graywater system and maintenance program were estimated. From the data we researched, a typical graywater system costs approximately \$3,000 installed and includes the additional plumbing required to collect graywater, a washwater holding tank with pumps and controls, and all necessary appurtenances such as filters and overflow piping. Costs for an irrigation system were not included since it is assumed that an irrigation system would be installed whether or not graywater is utilized. Graywater system operation and maintenance costs can range from \$60 to \$400 annually depending on whether they are performed by the homeowner or a plumbing contractor.

## WATER CONSERVATION COSTS

Costs for the various water saving measures are listed in Table 3. The benefit over the service life of a measure is divided by its incremental cost to determine the benefit/cost ratio, as shown in Table 4. The higher the benefit of a measure is relative to its cost (benefit/cost ratio), the more feasible it is to implement. A benefit/cost ratio of 1.0 implies that the benefits received from a measure are equal to the cost of implementing that measure. Therefore, all water conservation measures in Table 4 with a benefit/cost ratio greater than 1 will more than pay for

themselves in water savings over their service life if implemented. Also, additional benefits are received by reduced sewage volume and energy savings. All cost data was revised to August 1997 dollars using an Engineering News Record Construction Cost Index for Los Angeles of 6631<sup>4</sup>.

**Table 3**  
**Costs for Water Conservation Devices**  
**(All Costs in August 1997 Dollars)**

Item	Standard Cost, dollars	Low Water Use Cost, dollars	Average Number per DU	Incremental Cost, dollars/DU
<b>INSIDE</b>				
Showerhead	3.66	10.98	1.7	12.44
Clothes Washer	573.40	703.94	1	130.54
Dishwasher	533.14	569.74	1	36.60
Pressure Reducing Valve	0.00	183.00	1	183.00
Hot Water Pipe Insulation	0.00	250.00	—	250.00
Recirculating Hot Water Pump	0.00	350.00	1	350.00
<b>OUTSIDE</b>				
Low Water Use Plants	1,100.00	1,100.00	----	0.00
Xeriscape <sup>1</sup>	5,850.00	7,137.00	----	2,867.00
Soil Moisture Sensors	0.00	122.00	2	244.00
Automatic Timer Shutoffs for Manual Hose Systems	0.00	18.30	2	36.60
<b>OTHER</b>				
Water Conservation Guide	0.00	2.44	1	2.44
Residential Graywater System	0.00	3,000.00 <sup>2</sup>	1	3,000.00

<sup>1</sup> Cost for xeriscape include capital cost and installation.

<sup>2</sup> Does not include annual maintenance costs.

Table 4

**San Miguel Ranch Water Conservation Measures  
(All Costs in August 1997 Dollars)**

Water Conservation Measure	Function	Water Savings Per Residence (gpd/DU)	Incremental Cost (\$/DU)	Service Life (years)	VALUE OF WATER SAVED		Benefit/Cost Ratio (Column 5/Column 2)
					Annual Savings per Residence (\$/DU/Yr)	Savings over Service Life (\$/DU)	
		1	2	3	4	5	6
<b>INDOOR</b>							
Ultra Low Flow Shower Head	Reduces Shower Flow Rate	8.5	12.44	15	6.14	92.10	7.4
Efficient Clothes Washer	Reduces Flow/Load	25.9	130.44	12	18.70	224.4	1.7
Efficient Dishwasher	Reduces Flow/Load	1.5	36.60	12	1.08	12.96	0.4
Pressure Reducing Valve	Reduces Flow Rate	9.2	183.00	20	6.64	132.80	0.7
Hot Water Pipe Insulation	Shortens time for Hot Water	4.3	250.00	15	3.11	46.65	0.2
Recirculating Hot Water Pump	Eliminates time for Hot Water	8.6	350.00	15	6.21	93.15	0.3
<b>OUTDOOR</b>							
Low Water Use Landscape	Lowers Demand for Watering	23.1	0.00	15	16.68	250.20	(very high)
Xeriscaping	Lower Demand Landscaping	77.0	2,867.00	15	55.61	834.15	0.3
Soil Moisture Sensors	More Efficient Watering	38.5	244.00	15	27.80	417.00	1.7
Automatic Timer Shutoff	Precise, Timed Watering	23.1	36.60	5	16.68	83.40	2.3
<b>OTHER</b>							
Water Conservation Guide	Increases Watering Efficiency	30.8	2.44	5	22.24	111.20	45.6
Residential Graywater System	Reuses household water for irrigation	57.6	3,000.00	10	41.59	415.90	0.1 <sup>1</sup>

<sup>1</sup>Not including annual operation and maintenance expenses which exceed annual water savings.



#### Sample Calculations for Table 4

- Column 1 = Savings per capita x 2.88 capita/DU average.
- Column 2 = Estimated cost per dwelling unit, See Table 3.
- Column 3 = Estimated service life.
- Column 4 = Column 1 x (\$1.48/100 cf) x (1 cf/7.48 gallon) x (365 day/year)
- Column 5 = Column 3 x Column 4
- Column 6 = Benefit/cost ratio = Column 5/Column 2

Note: cf = cubic feet  
1 cf = 7.48 gallons

#### WATER RATE

The water rate used to estimate the potable water savings in this study is \$1.48 per 100 cubic feet. This rate represents an average that was computed from Section 25 of the Otay Water District's Code of Ordinances. Under the current ordinance, the monthly charge is \$1.01 per 100 cubic feet for the first 500 cubic feet of use and \$1.65 per 100 cubic feet for water use from 500 cubic feet to 2,500 cubic feet. An average water use of 1,921 cubic feet per month (479 gpd) per residential dwelling unit was used to establish the average cost of potable water for San Miguel Ranch. Rates differ according to land use, but since San Miguel Ranch is predominantly residential, \$1.48 per 100 cubic feet was considered appropriate.

## TYPICAL WATER CONSERVATION PLAN

Table 5 shows some of the water conservation devices and their combined savings if they are implemented. Notice that not all of the conservation measures in Table 4 are listed in Table 5. This is because some of the measures, especially outdoor measures, are overlapping in purpose. Because an item is not listed in Table 5, however, does not imply that it is not feasible.

The purpose of Table 5 is to provide a typical water conservation plan for a single family dwelling unit and to demonstrate the potential water savings associated with such a plan. Note that implementing these devices results in a water savings of 137.5 gallons per household per day while maintaining a benefit/cost ratio of 2.0.

<b>Table 5</b> <b>Potential Water Conservation Plan for San Miguel Ranch</b> <b>(All Costs in August 1997 Dollars)</b>				
Water Conservation Measure	Water Savings Per Residence (gpd/DU)	Incremental Cost Per Residence (\$)	Savings Over Service Life (\$/DU)	Benefit/Cost Ratio
Ultra Low Flow Shower	8.5	12.44	92.10	7.4
Efficient Clothes Washer	25.9	130.44	224.40	1.7
Efficient Dishwasher	1.5	36.60	12.96	0.4
Pressure Reducing Valve	9.2	183.00	132.80	0.7
Low Water Use Landscaping	23.1	0.00	250.20	(Very High)
Soil Moisture Sensor	38.5	244.00	417.00	1.7
Water Conservation Guide	30.8	2.44	111.20	45.6
<b>TOTAL</b>	<b>137.5</b>	<b>608.92</b>	<b>1,240.66</b>	<b>2.0</b>

## RECOMMENDATIONS

It is clear that implementing the recommended water conservation measures would result in significant water savings and would be cost-effective for San Miguel Ranch. Aside from pressure reducing valves and irrigation with recycled water in all potential use areas which are required by the Otay Water District, it is up to the developer and homeowner to implement measures that will result in water savings. The developer is limited in how much he can make the homeowner do, but the developer should set a good example and make the homeowner aware of the need to conserve water.

We recommend that in the development of San Miguel Ranch, the following water conservation measures be included:

- Ultra low flow showerheads. (By developer)
- Pressure reducing valves. (Per OWD Standards)
- Water conservation guide. (By developer)
- Soil moisture sensors. (By developer in parks and public landscaping)
- Use of recycled water where possible. (Per OWD Standards)
- Drought resistant plants in parks and public landscaping. (By developer, see Appendix B).
- Effective irrigation system design and management in parks and public landscaping. (By developer, see Appendix B).

The water conservation guide should urge the homeowner to use low water use landscaping, install automatic timers on hoses, and choose an effective irrigation system. Appendix B contains the water conservation principles which will be utilized for irrigation equipment and design, irrigation management and planting design in San Miguel Ranch.

## REFERENCES

- 1 San Diego County Water Authority, 1996 Annual Report.
- 2 State of California, Department of Water Resources, Water Plan, Water Conservation Assumptions, October 1989.
- 3 American Water Works Association Journal, Volume 79, No. 3, March 1987.
- 4 Engineering News Record (ENR) Journal, August 1997

**APPENDIX A**

**SECTION 3107 OF THE  
METROPOLITAN WATER DISTRICT  
ADMINISTRATIVE CODE**

**§ 3107. Water Use Efficiency Guidelines.**

To the extent practicable, local water purveyors and owners of parcels, as appropriate, within an area for which a request for annexation is first considered by the Board after October 9, 1990, shall comply with the following:

(a) Annual water demand shall be minimized by incorporating water conservation measures into the development plans. Use of local groundwater, surface water, and reclaimed wastewater supplies shall be maximized to reduce demands on the District.

(b) Peak demands on the District shall be minimized by construction and operation of local storage and groundwater production facilities. In cases where the annexed area is served by an existing water delivery system, this provision may be satisfied by showing that these facilities will be added to the existing system.

(c) Reclaimed wastewater or other non-potable water shall be used on all golf courses; decorative lakes; and other landscaped areas exceeding one acre, including multi-family complexes, commercial and industrial developments, and similar areas. Reclaimed wastewater and other non-potable supplies shall be used for industrial processes and other suitable uses. If such supplies do not presently exist, a dual distribution system shall be constructed to accommodate such supplies when they become available in the future.

(d) "Best management practices" conservation measures, as identified by the District from time to time, shall be applied in all new and existing developments within the annexed area. At least one model home constructed in each new development within the annexed area shall demonstrate a water conserving landscape.

(e) Local storage, groundwater production capacity, system interconnections, and other measures shall be able to sustain a 7-day interruption in service from the District.

The member public agency within which the annexed area is located shall be responsible for assuring compliance with these provisions and shall report to the District regarding such compliance.

M.L. 38538 — October 9, 1990; amended by M.L. 39787 — August 20, 1992.

Revised 9/1/93

**APPENDIX B**

**WATER CONSERVATION METHODS**

## SAN MIGUEL RANCH

### WATER CONSERVATION METHODS

The irrigation design utilizes known and documented water conservation principles.

1. **Irrigation Equipment and Design:** The irrigation equipment and layout in the design reflects the water conservation methods that are becoming a standard in the industry, including: moisture sensing automatic controllers with multiple daily run times, head-to-head sprinkler layout to increase distribution uniformity (DU), matched precipitation rate nozzles to increase DU, low flow and low precipitation rate nozzles to decrease the probability of surface runoff, separate irrigation stations according to sun exposures, slopes (top and bottom) valved separately.
2. **Irrigation Management:** By implementing the guidelines set forth in the "Landscape Water Management Handbook" prepared by the Office of Water Conservation, Department of Water Resources, State of California, the irrigation manager can properly evaluate and maintain the irrigation system at peak performance. This is of primary concern for effective water application. This handbook includes instructions to perform "catch can testing" (measurements of water applied during specific test time to an area to verify precipitation rates and distribution uniformity), and the formulas to coordinate these factors (i e., ET, PR, and DU) and establish appropriate run times for each station.
3. **Planting Design:** Two basic considerations have directed the formulation of the plant palettes: 1) compatibility with the concept and related aesthetic characteristics, and 2) ability to thrive on



relatively low amounts of water. It is the second which will be addressed here as it relates planting design to water conservation.

Attention has been paid to the sensitive grouping of plants and the creation of communities based upon hydro-zones. These are associations of plants with similar climate, micro-climatic and water usage requirements. By grouping similar plants in these hydro-zones, the entire plant community can thrive on minimal amounts of water when carefully monitoring occurs. Without such care, a single plant species, which requires more water than the rest of the community, will encourage wasteful over watering just to keep that single specie green and healthy.

**APPENDIX**

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***Resolutions and Conditions***

RESOLUTION NO. 18532

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHULA VISTA CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (FSEIR 95-04) FOR THE SAN MIGUEL RANCH PROJECT; AMENDING THE GENERAL PLAN OF THE CITY OF CHULA VISTA FOR THE SAN MIGUEL RANCH PROPERTY (GPA-96-01); APPROVING AN AMENDMENT TO THE SAN MIGUEL RANCH GENERAL DEVELOPMENT PLAN (PCM-96-05); MAKING CERTAIN FINDINGS OF FACT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM; AND ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS

WHEREAS, Emerald Properties Corporation, hereafter referred to as "applicant", has submitted an application for a General Plan Amendment (Case # GPA-96-01) to be approved on the 2590.2 acre San Miguel Ranch property generally located north and east of Proctor Valley Road, south and east of the community of Sunnyside and southwest of San Miguel Mountain; and

WHEREAS, the City staff has added certain recommended changes to the General Plan Amendment application which amends the General Plan Text and General Plan Diagram for the property, to which the applicant has agreed, said amendments being a part of this Resolution, and

WHEREAS, the applicant has also submitted an application for an amendment to the San Miguel Ranch General Development Plan (Case #PCM-96-05) for the San Miguel Ranch property which generally reflects the proposed amendments to the General Plan; and

WHEREAS, a Draft Subsequent Environmental Impact Report (Case #SEIR-95-04), dated August, 1996, was prepared for the proposed project; and

WHEREAS, the Draft Subsequent Environmental Impact Report indicated that the following issues were significant and not mitigable for the proposed project:

- Land Use
- Landform/Visual Quality
- Parks, Recreation, and Open Space
- Air Quality; and

WHEREAS, the Draft Subsequent Environmental Impact Report was transmitted to the City of Chula Vista, as lead agency, to all concerned parties for review and comment; and

WHEREAS, notice of the availability of the Draft Subsequent Environmental Impact Report was given as required by law; and

WHEREAS, written comments from the public on the Draft Subsequent Environmental Impact Report were accepted from August 11, 1996 to October 9, 1996; and

WHEREAS, City Planning Commission held a duly called and noticed public hearing, accepted public testimony and closed the public comment period on the Draft Final Subsequent Environmental Impact Report on October 9, 1996; and

WHEREAS, agency and public comments have been addressed in the Final Subsequent Environmental Impact Report; and

WHEREAS, the Planning Commission held a duly called and noticed public hearing on Subsequent Environmental Impact Report, the General Plan Amendment and the General Development Plan Amendment on November 20, 1996, and made certain recommendations regarding the project; and

WHEREAS, the City Council held a duly called and noticed public hearing on December 1996, regarding the Final Subsequent Environmental Impact Report, the General Plan Amendment and the General Development Plan Amendment;

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Chula Vista hereby find, determine, resolve, and order as follows:

**FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (SEIR)**

1. The Final Subsequent Environmental Impact Report, San Miguel Ranch General Plan Amendment/General Development Plan Amendment (SEIR-95-04), dated August, 1996, consists of:

a. Final Subsequent Environmental Impact Report (EIR-95-04, SCH #96051038) dated August, 1996, which contains 1) the Draft Subsequent Environmental Impact Report, and 2) Comments and Responses to Comments on the Draft SEIR.

b. Appendices A through D to the Subsequent Environmental Impact Report dated August 1996.

2. The Final Subsequent Environmental Impact Report has been reviewed and approved by the City Council of the City of Chula Vista.

3. The Final Subsequent Environmental Impact Report reflects the independent determination of the City Council of the City of Chula Vista.

4. The Final Subsequent Environmental Impact Report is hereby certified by the City Council to have been completed in compliance with the California Environmental Quality Act and all applicable guidelines.

**ADOPTION OF GENERAL PLAN AMENDMENT**

The City Council hereby adopts amendments to the Chula Vista General Plan to be considered in conjunction with the final selection by the State of California of the alignment of State Route 125, which impacts the property over which this Amendment concerns. This Amendment shall apply to two land use distribution alternatives, each dependent upon a specific route location chosen by the State.

This General Plan Amendment shall assign and distribute residential land use densities for the San Miguel Ranch property and establish the location of sites for an Elementary School, a Community Park and a Retail Commercial center on the General Plan Diagram, which are presently indicated in nonspecific locations on the Diagram. This Amendment shall also apply to the General Plan Text relative to Chapter 14, Eastern Territories Plan. Both the amended General Plan Diagrams and Text are on file in the City Clerk's Office as Document No. CO96-225.

**C. ADOPTION OF GENERAL DEVELOPMENT PLANS AND CONDITIONS OF APPROVAL**

The City Council hereby approves amendments to the San Miguel Ranch General Development Plan (GDP), entitled San Miguel Ranch Amended Proctor Valley General Development Plan, dated December, 1996 and San Miguel Ranch Amended Horseshoe Bend General Development Plan, dated December, 1996, both on file in the City Clerk's Office as Document No. CO96-226. This approval shall be subject to the conditions enumerated below, which shall be complied with prior to the approval of any Sectional Planning Area (SPA) plan for this project. Since the applicant has chosen to prepare two plans, one reflecting each alternative location of the proposed SR-125 Tollway, the plan which reflects the alternative route location chosen by the State of California shall be the plan on which SPA plans may be prepared.

1. The alternative GDP which reflects the route of SR-125 rejected by the State shall be null and void.
2. The applicant shall:
  - a. Design a trail system to the satisfaction of the Directors of Parks and Recreation and Planning which is consistent with the policies of the Chula Vista General Plan and is in substantial conformance with the trail system indicated on the GDP figure providing project-associated trails to be located within the San Miguel Ranch property and which links to existing and planned trails in the area.
  - b. Link the Community Park and the Elementary School by a trail/sidewalk system in a manner approved by the Directors of Parks and Recreation and Planning.
  - c. Provide a minimum 3-acre private park within the area designated Medium Residential to be owned and operated by a homeowner's association established for the "Medium" area.
  - d. Prepare a comprehensive buffer plan for the visual separation of the project and the existing and planned facilities of the San Diego Gas and Electric Company's Miguel Substation through measures such as landscaping, significant topographic variation, homesite orientation and other appropriate methods.
  - e. Prepare a brush management plan which analyzes and reduces impacts related to placing homes in close proximity to large areas of natural vegetation.
  - f. Prepare a Sectional Planning Area plan traffic analysis in the SEIR which:
    - (1) Determines the existing and ultimate capacity and levels of service for the existing road network serving the project area.

- (2) Formulates a project phasing plan which is consistent with the phasing and financing of on- and off-site public street facilities as a component of the Public Facilities Financing Plan as required by the SPA regulations.
  - (3) Determines the types and phasing of interim on-site and off-site street facilities should SR-125 not be constructed before or concurrent with the proposed construction of the project.
  - (4) Determines the types and locations of off-site street facilities required to provide appropriate access to the Sweetwater Valley.
  - (5) Determines impacts of the entire project at a maximum dwelling unit buildout on the levels of service for the existing and planned road network serving the project area.
- g. Receive approval, if required, of an amendment to the County of San Diego General Plan Circulation Element, or other action acceptable to the County, which provides for off-site access to the Sweetwater Valley from the project.
3. A technical committee consisting of appropriate staff from the City Engineering and Planning Departments and the County Departments of Public Works and Planning and Land Use shall be established to provide input to the SPA-level study of area-wide transportation planning concerns.
  4. The dwelling unit totals of 1432 units for the Proctor Valley Plan and 1394 units for the Horseshoe Bend Plan are approved in principle. The ultimate total, resulting from more specific SPA and Tentative Map planning and site analysis, may require a reduction in these numbers. Actual development entitlements shall also be predicated upon the availability of public services and sufficient capacity of the area road network as determined by the traffic analysis required in Condition 2f.
  5. The density of the area designated Medium Residential shall not exceed seven dwelling units per gross acre.
  6. The minimum net lot size in the area designated LM-1 shall be 7,000 square feet in conformance with the clustering provisions of Section 6.3 of the General Plan.
  7. A minimum of 50 percent of the lots west of the proposed SR-125 alignment on the Horseshoe Bend Plan or a minimum of 50 percent of the lots west of the diagonal SDG&E right-of-way on the Proctor Valley Plan shall be improved to the Residential Estates Zone standards in order to maintain a balance of at least 50 percent of all lots in the western area of the project as estate-sized lots in the vicinity of the Bonita/Sunnyside community.
  8. Environmental review shall be accomplished for annexation of any lands which will be annexed to the City in conjunction with the annexation of the San Miguel Ranch property. This condition may be waived only if (1) the Subarea Plan of the Multiple Species Conservation Program (MSCP) precludes any development of the North Parcel, or (2) the Wildlife Agencies purchase the area of the North Parcel on which the General Plan designates that development may occur or (3) it is determined by the Chula Vista City Council that given the eventual disposition of the North Parcel for ownership and maintenance purposes, either

though the MSCP or other means, it is not in the best interest of the City of Chula Vista to annex the North Parcel into its corporate boundaries.

9. The SPA plan shall define criteria by which the design of the project in the vicinity of Bonita/Sunnyside provides, to the extent feasible, the highest possible degree of compatibility between this community and the project.

10. The San Miguel Ranch Citizen's Advisory Committee, presently appointed and serving, shall continue to provide citizen input into the SPA plan and subsequent Tentative Map processes required by the previous resolution of approval (Resolution 17057).

#### **D. GENERAL PLAN AMENDMENT AND GENERAL DEVELOPMENT PLAN AMENDMENT FINDINGS**

**Land Use Element:** The amendments to the General Plan and General Development Plan provide a broader range of densities and housing opportunities in the easterly portion of the subject property adjacent to the Salt Creek developments, which have similar residential densities, while retaining the lower density areas presently indicated Low Residential on the General Plan near the semi-rural areas of the community of Sunnyside. The amendment more precisely locates the Neighborhood Commercial area, Elementary School and the Community Park, all of which are presently designated in "floating" locations on the General Plan diagram.

**Circulation Element:** The Circulation system design included in the San Miguel Ranch General Development Plan provides for a four-lane collector road slightly to the south of the location depicted on the General Plan diagram and the Circulation Element. This more advantageous location removes it as a direct alignment with existing San Miguel Road in the unincorporated area to the north. In this manner, the interchange of San Miguel Road and State Route-125 shifts to the south and diminishes impacts to San Miguel Road between the interchange and Bonita Road. Trails and bicycle lanes required by the Circulation Element will be provided via the General Development Plan and subsequent Sectional Planning Area plan and Tentative Map.

**Public Facilities Element:** The General Development Plan and implementing future Sectional Planning Area plan will provide the framework for the provision of master plans for water, wastewater, drainage/flood control, sewer and other systems as appropriate. Amendments to the General Plan and General Development Plan will not impact the provision and implementation of these plans.

**Housing Element:** The Goals and Objectives of the San Miguel Ranch General Development Plan include the provision of a variety of housing types and low- and moderate-income housing for the project to implement the Housing Element of the General Plan.

**Growth Management Element:** The Goals and Objectives of the San Miguel Ranch General Development Plan relative to the provision of public facilities and the phasing of development subject to their availability implement the Growth Management Element of the General Plan. Before any construction may occur as a result of this General Plan Amendment and General Development Plan Amendment, a Public Facilities Financing Plan, a part of the Sectional Planning Area process, must first be prepared to insure that all public facilities are available concurrent with need as required by the General Plan.

**Open Space and Recreation Element:** The General Development Plan provides the Community with recreational trails and open space required by the General Plan for the subject property.

**Geology Element:** No geologic hazards have been identified for the subject property although development resulting from this General Plan Amendment and General Development Plan Amendment must conform with recommendations of a qualified engineering geologist. The implementing Sectional Planning Area plan will provide brush management and fuel reduction requirements for fire safety.

**Noise Element:** The Noise Element of the General Plan requires that the City enforce regulations related to noise from traffic and conflicting land uses. The General Development Plan and future implementing Sectional Planning Area plan will mitigate noise as required by measures indicated in the Subsequent Environmental Impact Report.

#### **CEQA FINDINGS, MITIGATION MONITORING PROGRAM AND STATEMENT OF FINDING REGARDING CONSIDERATIONS**

##### **Adoption of Findings.**

The City Council does hereby approve, accept as its own, incorporate as if set forth in full, and make each and every one of the findings contained in the "Candidate Findings of Fact" (Document Number CO96-223 on file in the City Clerk's Office).

##### **Conclusion: Mitigation Measures Feasible and Adopted.**

Where fully identified and set forth in SEIR 95-04 and in the Candidate Findings of Fact, the Council hereby finds pursuant to Public Resources Code Section 21081 and CEQA Guidelines Section 15091 that the mitigation measures described as feasible in the above referenced documents, are feasible, and will become binding upon the entity (such as the project proponent, the City, or the School district) assigned thereby to implement same.

##### **Infeasibility of Alternatives**

As also noted in the above referenced environmental documents described in the above paragraph 2, each of the alternatives to the project which were identified as potentially feasible in SEIR-95-04 are found not to be feasible since they could not meet both the objectives of the Project and avoid the identified significant environmental effects through implementation of feasible mitigation measures for the reasons set forth in said Candidate Findings of Fact.

##### **Adoption of Mitigation Monitoring and Reporting Program**

As required by the Public Resources Code Section 21081.6, the City Council hereby adopts a Mitigation Monitoring and Reporting Program ("Program") incorporated in the SEIR Section 2. The Council hereby finds that the Program is designed to ensure that during project implementation the permittee/project applicant and any other responsible parties implement the Program components and comply with the feasible mitigation measures identified in the Candidate Findings of Fact and the Program.



5. Statement of Overriding Considerations

Even after the adoption of all feasible mitigation measures and any feasible alternatives, certain significant or potentially significant environmental effects caused by the project, or cumulatively, will remain. Therefore, the City Council of the City of Chula Vista hereby issues, pursuant to CEQA Guideline Section 15093, a Statement of Overriding Considerations (Document No. CO96-224 on file in the City Clerk's Office), identifying the specific economic, social, and other considerations that render the unavoidable significant adverse effects acceptable.

F. NOTICE OF DETERMINATION

The Environmental Review Coordinator of the City of Chula Vista is directed, after City Council approval of this project, to insure that a Notice of Determination is filed with the County Clerk of the County of San Diego.


G. INVALIDITY; AUTOMATIC REVOCATION

It is the intention of the City Council that its adoption of this Resolution is dependent upon the enforceability of each and every term, provision and condition herein stated; and that in the event that any one or more terms, provisions or conditions are determined by a Court of competent jurisdiction to be invalid, illegal or unenforceable, this resolution shall be deemed to be automatically revoked and of no further force and effect ab initio.

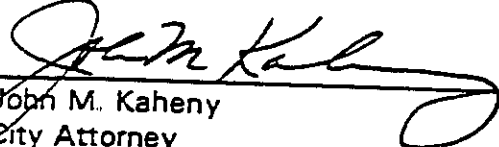
H. ONE GENERAL PLAN AMENDMENT

It is the intention of the City Council that its action on the San Miguel Ranch by this Resolution and its action on the General Plan Amendment for the companion item Mother Miguel Estates be and is one General Plan Amendment for the purposes of the State Law limitation on the number of allowable General Plan Amendments in one year.

Presented by

  
\_\_\_\_\_  
Robert A. Leiter  
Director of Planning

Approved as to form by

  
\_\_\_\_\_  
John M. Kaheny  
City Attorney

PASSED, APPROVED, and ADOPTED by the City Council of the City of Chula Vista, California, this 17th day of December, 1996, by the following vote:

AYES:	Councilmembers:	Moot, Padilla, Rindone, and Salas
NAYES:	Councilmembers:	Horton
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None

  
\_\_\_\_\_  
Shirley Horton, Mayor

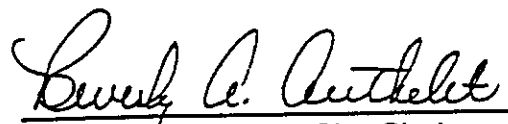
ATTEST:

  
\_\_\_\_\_  
Beverly A. Authelet, City Clerk

STATE OF CALIFORNIA     )  
COUNTY OF SAN DIEGO   ) ss.  
CITY OF CHULA VISTA     )

I, Beverly A. Authelet, City Clerk of the City of Chula Vista, California, do hereby certify that the foregoing Resolution No. 18532 was duly passed, approved, and adopted by the City Council at a regular meeting of the Chula Vista City Council held on the 17th day of December, 1996.

Executed this 17th day of December, 1996.

  
\_\_\_\_\_  
Beverly A. Authelet, City Clerk

RESOLUTION NO. 18533

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHULA VISTA CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT (FSEIR 94-04) FOR THE SAN MIGUEL RANCH PROJECT WHICH INCLUDES THE MOTHER MIGUEL ESTATES PROPERTY; AMENDING THE GENERAL PLAN OF THE CITY OF CHULA VISTA FOR THE MOTHER MIGUEL ESTATES PROPERTY (GPA-96-02); MAKING CERTAIN FINDINGS OF FACT PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; ADOPTING A MITIGATION MONITORING AND REPORTING PROGRAM; AND ADOPTING A STATEMENT OF OVERRIDING CONSIDERATIONS

WHEREAS, James H. Algert and Billy R. Scott, hereafter referred to as "applicants", have submitted an application for a General Plan Amendment for approximately 10 acres of land, referred to as Mother Miguel Estates (Case #GPA-96-02), generally located adjacent to the north side of the south parcel of San Miguel Ranch and the south side of the San Diego Gas and Electric Company transmission facility, southwest of Mother Miguel Mountain; and

WHEREAS, the applicant has also submitted an application for rezoning of the property to the PC Planned Community Zone (Case #PCM-96-05) in accordance with rezoning previously established for the adjacent San Miguel Ranch property; and

WHEREAS, a Draft Subsequent Environmental Impact Report (Case #SEIR-95-04), dated August, 1996, was prepared for the San Miguel Ranch, which also included the Mother Miguel Estates project; and

WHEREAS, the Draft Subsequent Environmental Impact Report indicated that the following issues were significant and not mitigable for the proposed project:

Land Use  
Landform/Visual Quality  
Parks, Recreation and Open Space  
Air Quality; and

WHEREAS, the Draft Subsequent Environmental Impact Report was transmitted to the City of Chula Vista, as lead agency, to all concerned parties for review and comment; and

WHEREAS, notice of the availability of the Draft Subsequent Environmental Impact Report was given as required by law; and

WHEREAS, written comments from the public on the Draft Subsequent Environmental Impact Report were accepted from August 11, 1996 to October 9, 1996; and

WHEREAS, City Planning Commission held a duly called and noticed public hearing and accepted public testimony on the Draft Subsequent Environmental Impact Report on October 9, 1996; and

WHEREAS, agency and public comments have been addressed in the Final Subsequent Environmental Impact Report; and

WHEREAS, the Planning Commission held a duly called and noticed public hearing on the Subsequent Environmental Impact Report, the General Plan Amendment and the Rezoning on November 20, 1996, and made certain recommendations regarding the project; and

WHEREAS, the City Council held a duly called and noticed public hearing on December 17, 1996, regarding the Subsequent Environmental Impact Report, the General Plan Amendment and the Prezone.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Chula Vista does hereby find, determine, resolve, and order as follows:

**A. FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT**

1. The Final Subsequent Environmental Impact Report, San Miguel Ranch General Plan Amendment/General Development Plan Amendment (SEIR-95-04), dated August, 1996, which also includes the Mother Miguel Estates project, consists of:

Final Subsequent Environmental Impact Report (EIR-95-04, SCH #96051038) dated August, 1996, which contains 1) the Draft Subsequent Environmental Impact Report, and 2) Comments and Responses to Comments on the Draft SEIR.

2. The Final Subsequent Environmental Impact Report has been reviewed and considered by the City Council of the City of Chula Vista.

3. The Final Subsequent Environmental Impact Report (and addendum thereto) reflects the independent judgement of the City Council of the City of Chula Vista.

4. The Final Subsequent Environmental Impact Report (and Addendum thereto) is hereby certified by the City Council to have been completed in compliance with the California Environmental Quality Act and all applicable guidelines.

**B. GENERAL PLAN AMENDMENT FINDINGS**

**Land Use:** The amendment to the General Plan provides the land use category which is the same as that proposed for the adjacent San Miguel Ranch.

**Circulation:** The property would take access from a local street emanating from the Mt. Miguel Road, a proposed four-lane collector street with access to future SR-125.

**Public Facilities:** The General Development Plan for the San Miguel Ranch project and implementing future Sectional Planning Area plan will provide the framework for the provision of master plans for water, wastewater, drainage/flood control, sewer and other systems as appropriate. The amendment to the General Plan and companion rezoning for Mother Miguel Estates will benefit from the implementation of these plans.

**Housing:** Because of its relatively small size, the provision of low- and moderate- income housing is not a requirement for the project.

**Growth Management:** The Goals and Objectives of the San Miguel Ranch General Development Plan relative to the provision of public facilities and the phasing of development subject to their availability implement the Growth Management Element of the General Plan. Before any construction may occur on the Mother Miguel Estates property as a result of this General Plan Amendment, a Public Facilities Financing Plan for the San Miguel Ranch must first be prepared to insure that all public facilities are available to serve the Mother Miguel Estates project concurrent with need as required by the General Plan.

**Parks and Recreation:** The owners of the Mother Miguel Estates property will be required to pay Park Acquisition and Development fees to assist in the financing of park and recreation facilities in the area before development may occur.

**Safety Element:** The geologic hazards have been identified for the subject property although all development resulting from this General Plan Amendment and Prezone must conform with recommendations of a qualified engineering geologist. Brush management and fuel modification requirements will be required as a condition of approval of any tentative subdivision map resulting from this General Plan Amendment and Prezone for fire safety.

**Noise Element:** The Noise Element of the General Plan requires that the City enforce regulations related to noise from traffic and conflicting land uses. No noise sources have been identified relative to this project.

### **C. CEQA FINDINGS, MITIGATION MONITORING PROGRAM AND STATEMENT OF OVERRIDING CONSIDERATIONS**

#### **1. Adoption of Findings.**

The City Council does hereby approve, accept as its own, incorporate as if set forth in full herein, and make each and every one of the findings contained in the "Candidate Findings of Fact" (Document No. CO96-227 on file in the City Clerk's Office).

#### **2. Certain Mitigation Measures Feasible and Adopted.**

As more fully identified and set forth in SEIR-95-04 and in the Candidate Findings of Fact, the Council hereby finds pursuant to Public Resources Code Section 21081 and CEQA Guidelines Section 15091 that the mitigation measures described as feasible in the above referenced documents, are feasible, and will become binding upon the entity (such as the project proponent, the City, or the School district) assigned thereby to implement same.

#### **3. Infeasibility of Alternatives**

As is also noted in the above referenced environmental documents described in the above subparagraph 2, each of the alternatives to the project which were identified as potentially feasible in SEIR-95-04 are found not to be feasible since they could not meet both the objectives of the Project and avoid the identified significant environmental effects through implementation of feasible mitigation measures for the reasons set forth in said Candidate Findings of Fact.

4. Adoption of Mitigation Monitoring and Reporting Program

As required by the Public Resources Code Section 21081.6, the City Council hereby adopts the Mitigation Monitoring and Reporting Program ("Program") incorporated in the SEIR Section 6.0. The Council hereby finds that the Program is designed to ensure that during project implementation the permittee/project applicant and any other responsible parties implement the project components and comply with the feasible mitigation measures identified in the Candidate Findings if Fact and the Program.

5. Statement of Overriding Considerations

Even after the adoption of all feasible mitigation measures and any feasible alternatives, certain significant or potentially significant environmental effects caused by the project, or cumulatively, will remain. Therefore, the City Council of the City of Chula Vista hereby issues, pursuant to CEQA Guideline Section 15093, a Statement of Overriding Considerations Document No. CO96-228 on file in the City Clerk's Office), identifying the specific economic, social, and other considerations that render the unavoidable significant adverse effects acceptable.

6. NOTICE OF DETERMINATION

The Environmental Review Coordinator of the City of Chula Vista is directed, after City Council approval of this project, to insure that a Notice of Determination is filed with the County Clerk of the County of San Diego.

7. INVALIDITY; AUTOMATIC REVOCATION

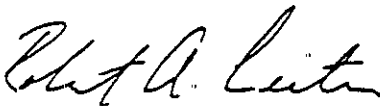
It is the intention of the City Council that its adoption of this Resolution is dependent upon the enforceability of each and every term, provision and condition herein stated; and that in the event that any one or more terms, provisions or conditions are determined by a Court of competent jurisdiction to be invalid, illegal or unenforceable, this resolution shall be deemed to be automatically revoked and of no further force and effect ab initio.

8. ONE GENERAL PLAN AMENDMENT

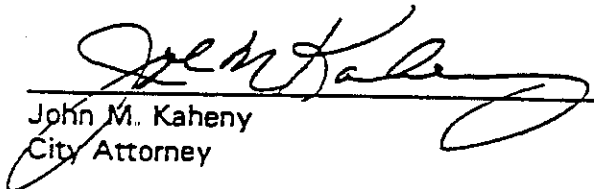
It is the intention of the City Council that its action on the Mother Miguel Estates project by this Resolution and its action on the companion item, San Miguel Ranch, be and is one General Plan Amendment for the purposes of the State Law limitation on the number of allowable General Plan Amendments in one year.

Presented by

Approved as to form by



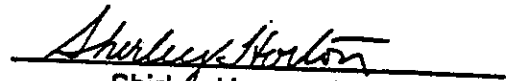
Robert A. Leiter  
Director of Planning




John M. Kaheny  
City Attorney

PASSED, APPROVED, and ADOPTED by the City Council of the City of Chula Vista, California, this 17th day of December, 1996, by the following vote:

AYES:	Councilmembers:	Moot, Padilla, Rindone, Salas, and Horton
NAYES:	Councilmembers:	None
ABSENT:	Councilmembers:	None
ABSTAIN:	Councilmembers:	None

  
Shirley Horton, Mayor

ATTEST:

  
Beverly A. Authelet, City Clerk

STATE OF CALIFORNIA    )  
COUNTY OF SAN DIEGO   ) ss.  
CITY OF CHULA VISTA    )

I, Beverly A. Authelet, City Clerk of the City of Chula Vista, California, do hereby certify that the foregoing Resolution No. 18533 was duly passed, approved, and adopted by the City Council at a regular meeting of the Chula Vista City Council held on the 17th day of December, 1996.

Executed this 17th day of December, 1996.

  
Beverly A. Authelet, City Clerk