S P E C I F I C P L A N

Talon Ranch

EXECUTIVE COPY

SPECIFIC PLAN

Talon Ranch

A MASTER PLANNED COMMUNITY

RYDER COMPANIES

CITY OF VICTORVILLE

TALON RANCH SPECIFIC PLAN

Submitted:
November 14, 1989

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I N T R O D U C T I O N

1 Introduction

• Background

Introduction

The Talon Ranch Specific Plan, adjacent to Highway 395 describes a planned community consisting of approximately 144 acres of primarily residential uses located in the southwest portion of Victorville. Talon Ranch is envisioned as a high quality, family oriented, master planned community. Through strong cohesive community design, Talon Ranch will offer not just a desirable living environment, but a way of life for future residents.

Purpose and Intent

This Specific Plan serves as a document for the future development of the Talon Ranch planned community. It sets forth detailed Land Use, associated regulations, Circulation Standards, Infrastructure Service, municipal financing mechanisms, as well as supporting goals, policies and regulatory procedures to implement the Land Use Plan. The plan also incorporates environmental impact documentation including mitigation measures for the environmental assessment review process.

The Specific Plan, as a result, becomes an implementation tool of the current City of Victorville General Plan. It can be described as a bridge between the overall goals of the General Plan and more detailed planning which implements the Land Use Plan.

The City of Victorville General Plan provides the primary goals and policy foundation for the Specific Plan. This plan is essentially a further refinement of the general goals and policies stated in the General Plan. However, the City of Victorville Community Development Land Use Policy and Zoning Map will have to be amended to reflect a Specific Plan designation.

Additionally, a development agreement can be entered into with the City and approved by the legislative body if it determines the agreement is consistent with the General Plan, the Specific Plan, and is in the mutual best interest of the City of Victorville and the developer (Refer to Chapter 18.59 in Title 18 of the Victorville Municipal Code titled "Zoning").

The Specific Plan is intended to be a flexible planning document which provides the City of Victorville with comprehensive sets of plans, programs and regulations which assures development of the project area as a coordinated planned community involving a mixture of land uses. The main intent of the plan is to reduce the need for subsequent detailed planning and environmental review procedures for development within the Specific Plan boundaries. The Specific Plan, along with environmental resource information, provides the necessary standards and environmental documentation for the project area so that future development applications, consistent with the Specific Plan, may proceed with the application process without a requirement for new documentation.

The Specific Plan was initiated by the developer to provide a number of benefits to the City and the planning area as a whole including:

- ☐ An opportunity for individual lifestyle choices expressed through a complementary mix of residential housing types and supporting commercial uses. This will expand the appeal of the development to a broad income range;
- ☐ An appropriate character of residential development given the existing conditions, the marketplace, and surrounding land uses;
- ☐ Examples of enhanced desert landscaping, which promote water conservation, within the model home complex;
- ☐ The provision for major infrastructure concepts and future roadway extensions;
- ☐ Recommended mechanisms to provide and finance necessary public service improvements in the area;
- ☐ Adequate environmental documentation so that a reduced scope of environmental review will be sufficient for individual development applications which are consistent with the plan;
- ☐ Additional development regulations for the western sphere annexation area to assure that future development will be compatible with surrounding areas; and
- ☐ A clear basis for subdivision review so that individual project applications which are consistent with the plan can be processed in a timely manner.

In addition, the plan is designed to address a number of specific City objectives, including the desire to: (a) construct the major arterials and collectors identified in the General Plan's Circulation Element; (b) ensure that residential development in the area takes place in an orderly, well-conceived manner as the necessary public services are provided; (c) ensure that residential development in the city will be consistent with regional, commercial and industrial growth.

Jurisdiction and Boundaries

Talon Ranch, recently annexed into the City of Victorville, is located northwest of the Mall of Victor Valley and south of Palmdale Road in the Victor Valley portion of the high desert area of Southern California as shown in Exhibit 1 and Exhibit 2. Victor Valley is comprised of the communities of Apple Valley, Victorville, Hesperia, Lucerne Valley, Silver Lakes, Helendale, Phelan and Adelanto. The project site is generally bounded by Topaz Road to the east, Luna Road to the south, Highway 395 to the west, and Dos Palmas Road to the north. The project area is connected via Palmdale Road and Highway 395 to the adjacent Interstate 15 Freeway.

Contents

The Specific Plan, adopted as an ordinance, will guide development of the project area by regulations and measures contained within this document. Environmental resource considerations in concert with General Plan goals and policies formulate the basic framework for the Development Plan. The plan is organized into the following sections:

1. **Introduction:** The introductory section includes the project description and the authority and scope of the document in accordance with State Planning, Zoning and Development law. It also includes a discussion of the Specific Plan's relationship with the goals and policies of the elements of the current City of Victorville's General Plan.

2. **Environmental Resources:** This section includes a description of the existing conditions and environmental documentation (based on State CEQA guidelines) associated with the project site and surrounding area.

3. **Development Plan:** A discussion of the land use plan and development program are included in this section. It also includes the administrative and regulatory provisions to implement the Land Use Plan.

4. **Infrastructure Plan:** This includes a description of the planned major circulation network including public works (water, sewer and drainage) improvements that support the Land Use Plan.

5. **Implementation Measures:** A discussion describing potential implementation measures such as capital improvement programs, assessment district financing, etc. is covered in the implementation section.

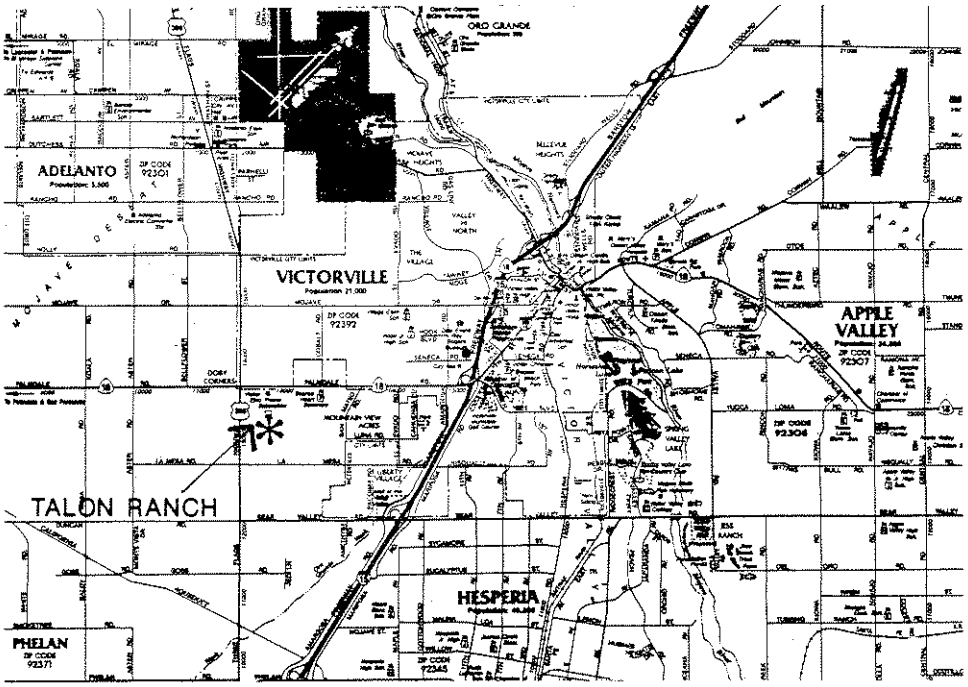
The Specific Plan will establish the overall development patterns in Talon Ranch with regulatory provisions extracted and/or amended from applicable sections of the City of Victorville Municipal Code Zoning Ordinance (Title 18) and Subdivision Ordinance (Title 17).

Authority and Scope

The adoption of this Specific Plan by the City of Victorville is authorized by Article 8, Specific Plan of the Planning, Zoning and Development Law of the California Government Code and pursuant to state and local guidelines. The Government Code authorized cities or counties to prepare, adopt, and administer Specific Plans for portions of their jurisdictions, as a means of implementing the General Plan.

Application

The Specific Plan is one of many policy or regulatory tools used by local governments to guide community development. The Talon Ranch Specific Plan applies only to that property within the City of Victorville (portions of Section 27) and known as "Talon Ranch". The boundary of the project site is shown on Exhibit 2, Site Location.



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Community Setting

Site Location

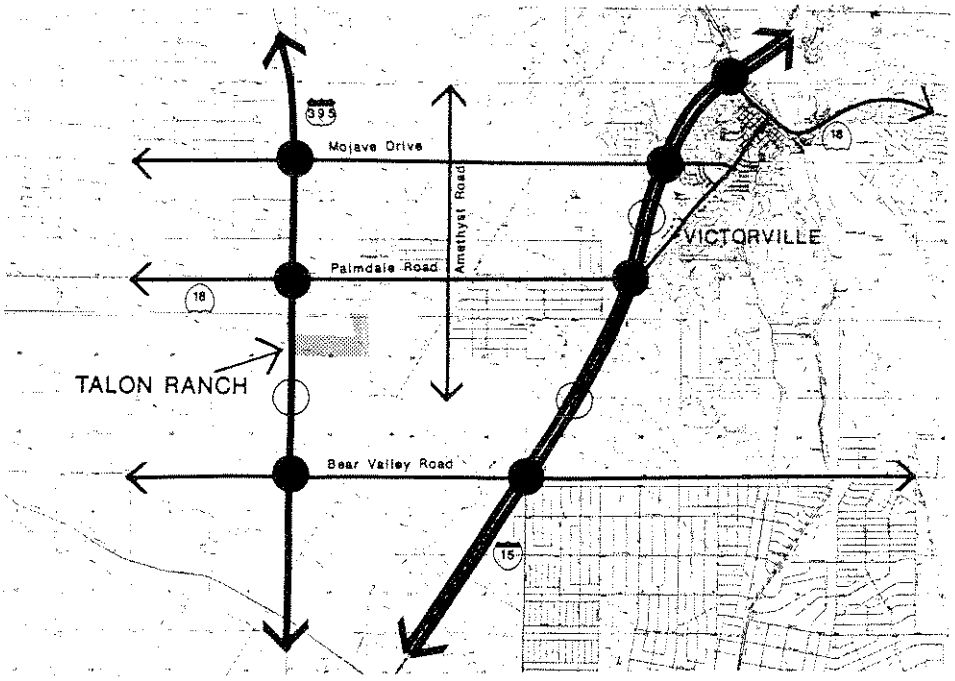

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TABLE 1: SUMMARY DATA

Planning Area Location	• West boundary is State Highway 395, south of Palmdale Road (State Route 18) and approximately 4 miles west of Intersection of Interstate 15 and Palmdale Road.
Planning Area Size	• Approximately 144 acres, with 26 acres within the SCE easement.
Parcelization & Ownership	• 6 parcels ranging in size from 18 to 40 acres; Held by Ryder Companies, et al
Governmental and Service Jurisdictions	• City of Victorville • Fire: City of Victorville • Police: San Bernardino County Sheriff • Sewer: Victor Valley Wastewater Reclamation Authority • Water: Victor Valley Water District

Specific Plan Land Use (Acres)

Land Use	Acres	Total Homes
Residential:		
• Medium Low Residential (3-5 DU/AC)	52.44	197
• Medium Residential (4-6 DU/AC)	77.85	318
Non-Residential:	19.42	194
• Commercial (HR Residential Overlay)		
• Major Roads/ Open Space	11.70	--
• SCE Easement	26.29	--

Specific Plan Adoption

The process for the adoption of a Specific Plan requires a public hearing by the Planning Commission. Based on a recommendation by the Planning Commission, the City Council may then adopt the Specific Plan by ordinance. The adoption is by ordinance when the existing zoning ordinance and/or other codes are amended. Once the Specific Plan is adopted, the City Council shall deny approval of any tentative map, or a parcel map if the proposed map (subdivision) is inconsistent with the Specific Plan [Subdivision Map Act (California Government Code, Section 66474(a) and (b)].

• General Plan Relationship

Introduction

This Specific Plan is subject to the goals and policies in the City of Victorville's General Plan. The California Government Code requires the Specific Plan be consistent with the General Plan and include regulations, conditions, programs, and proposed legislation which are necessary or convenient for the implementation of the General Plan.

This Specific Plan is a refinement of, and an elaboration on, the General Plan. The plan has been formulated to be consistent with persistent goals and policies

as outlined in the General Plan. However, amendment to the General Plan will be required to accommodate this Specific Plan.

The following is a summary discussion of the relationship of this Specific Plan to the various elements of the City's General Plan. The review is organized as follows:

- ☐ Community Development Element
- ☐ Housing Element
- ☐ Circulation Element
- ☐ Safety Element
- ☐ Environmental Resource Element
- ☐ Park and Recreation Element
- ☐ Noise Element
- ☐ Historic Preservation Element
- ☐ Solid Waste Management Element

Physical Setting

The physical setting is comprised of twelve categories which include: geology, seismic hazards, soils/liquefaction, mass wasting, flood protection, water quality, agriculture, open space, biotic communities, fire, noise, and land suitability for urbanization.

A thorough search and evaluation of available data and site reconnaissance was made to determine and analyze the physical environment of the project site and surrounding environs.

Community Development Element: The Community Development Element includes general land use goals and policy guidelines for the City of Victorville. Twelve categories are utilized in the General Plan to designate land use throughout the City. In addition, the project site is located in an area identified as suitable for urbanization. The proposed Specific Plan Land Use Plan reflects patterns within the broad categories in the General Plan.

Consistency with the overall goals in the City's General Plan is achieved by the proposed planned community which creates an identity with a balanced variety of housing products within a broad price range. The project will be phased over a long term.

Housing Element: The goals that are included in the City's Housing Element are generally oriented toward developing a balanced residential environment. The multiple residential product concept provided for the Specific Plan is consistent with such goals.

Planned residential development for the Specific Plan area will provide significant new housing opportunities for area residents. Through a diverse range of product types, densities and price ranges, the project will offer an alternative to families and individuals seeking to locate close to an expanding employment base in the Victor Valley region.

Circulation Element: The Circulation Element includes the Master Circulation Plan. The Circulation Element describes the goals and policies for planning, developing and maintaining, on a citywide basis, an integrated system of surface

transportation necessary to service the existing and planned land uses within the City.

The Element also graphically depicts the general location and classification of an integrated system consisting of transportation corridors, freeways, arterials and collectors. The Specific Plan includes the following to facilitate the intent of the Circulation Plan:

Development within the Specific Plan shall be responsible for roadway improvements shown on the Master Circulation Plan and within the Specific Plan boundaries.

Implement the arterial and collector system to the required roadway standards as defined by the City of Victorville Master Circulation Plan.

Design a local circulation system which serves the community and provides linkages to neighborhood and transit facilities.

Encourage alternate forms of transportation with emphasis toward providing public transportation.

Increase opportunities for pedestrians and bicyclists.

Safety Element: The Safety Element incorporates goals and policies pertaining to seismic and geologic hazards materials. The fundamental goal of the Safety Element is to provide a safe living environment consistent with available resources required to identify and control natural and other hazards.

Geology/Seismic Hazards: The geotechnical analysis shows that no active or potential faults are known to exist within the project area. Therefore, it is concluded that the project area is safe for development, subject to applicable building and mechanical codes. Prior to issuance of building permits, however, detailed investigations shall be conducted, and appropriate construction practices implemented.

Mass Wasting: The project site is relatively flat and is not subject to landslides. Because of the sandy texture of the project site's soils, cutbanks may not be stable and may be subject to sloughing. Grading and earth work activity will be performed in accordance with and conform to applicable city ordinances and permit requirements.

Flood Protection: Preliminary hydraulic investigations have been documented within the project site and concluded that it is safe for development. A drainage concept for the proposed development provides for flood protection. The project area is located outside of the 100 and 500 year flood plain.

Hazardous Materials: The project site is not located near the Interstate 15 corridor or the Atchison, Topeka and Santa Fe mainline railroad.

George Air Force Base is currently being reviewed for future land use options by a joint reuse committee representative of the County and cities in the high desert. These options will be monitored during subsequent, more detailed development phases.

Fire: Because the project site is in a wildfire area, all proposed fire protection facilities and procedures will be reviewed and stated requirements of the City of Victorville fire department will be met.

The water system will have sufficient capacity and pressure to meet fire flow requirements. A fuel modification program for all areas bordering upon natural open space can be developed, if necessary.

Environmental Resource Element: The Environmental Resource Element is concerned with the preservation of natural resources and the maintenance of open space.

Geological Resources: A review of United State Geological Survey and California State Division of Mines and Geology Geotechnical Studies was conducted as a part of the development program. A 1980 Bureau of Land Management (BLM) study identified the Victorville area as having a good potential for leasable oil and gas deposits. The BLM study also shows a potential for locatable mineral resources in the project area. The development program for the project site proposes only commercial and residential land uses. No mining activities are proposed.

Soils: The soils associated with the project are identified by the United States Department of Agriculture. Soil Conservation Service (SCS) as being suitable for development. All soils related to the project site are subject to the hazard of soil blowing.

Air Quality: Development of energy conservation techniques for both building construction and site planning during more detailed phases of the project.

Water Quality: The Soil Conservation Service (SCS) identifies soil permeability associated with the project site as moderately slow to rapid. Water drawn from wells has retained a consistent high quality through many years of testing.

Consequently, development in the Victorville area has had no apparent effect on water quality for the water resources contained in underground aquifers. Additional water quality standards for the proposed development will include proposals for erosion control measures during subsequent construction phases, and development plans to control storm water pollution.

Biotic Communities: The proposed right of way areas within the project site may consist of enhanced or transitional desert. This area can be revegetated to provide a transition between natural areas and private landscape areas. Minimal irrigation in the right of way areas will allow desert species to flourish. Some plant species found on the project site may be transplanted within the development areas.

The proposed development will emphasize desert landscaping methods. Where possible, the native vegetation will be enhanced and supplemented with drought tolerant plants that require minimal irrigation. Non-native trees and flowers can be interspersed with natives. Most yuccas, including the Joshua tree, are protected under the native plant law. Special permits will be obtained prior to their removal or transplanting, when feasible.

In addition, development efforts will be required to be directed towards the preservation of sensitive and unique habitats as well as rare or endangered species living within the project area.

Paleontological/Archaeological/Historic Resources: The project site falls within the fossiliferous strat identified in the current General Plan. Because paleontological resources may be unearthed during construction, a mitigation measure will include that any discovered needs to be salvaged by a trained specialist. No significant historic resource areas, as mapped in the General Plan or in any Cultural Resource Survey is of the area (San Bernardino County Museum), are located on the property. The project site is currently vacant.

Park and Recreational Element: The Park and Recreation Element identifies a park facilities of local and citywide significance including specialized facilities. All city-required requirements will be met.

Noise Element: Major noise sources may be associated with existing and/or new land uses at George Air Force Base and all roadways. Consistent with city policies, all new residential buildings may be required to comply with noise attenuation standards. New development within the Specific Plan area will comply with the intent and purpose of the Noise Element.

Historic Resources: The Historic Element identifies historical sites through cultural, economic, historic personages or events and distinguished architecture or other notable works. Historic preservation is not applicable to the vacant project site.

Solid Waste Management: The community will be served by several public and quasi-public agencies. The agencies servicing the project site for solid waste are the County of San Bernardino Solid Waste Management District and Victorville Disposal, Inc.

The solid waste management element was developed to facilitate the state approval of establishing a city owned landfill. This would alleviate the need for the City to contract with San Bernardino County to dispose of its solid waste into the county landfill.

Land Use Regulations: The Specific Plan is intended to amplify existing jurisdictional implementation processes with specific district regulation geared to the project area. These regulations, upon adoption, will replace those currently established for the Specific Plan boundary by the Victorville Zoning Code. Section 3 of this document contains applicable Land Use Regulations for the Talon Ranch Specific Plan.

2

2 Environmental Resources

• Introduction

The environmental resource provides a baseline framework through which the Talon Ranch Development Plan has evolved. The existing issues and conditions pose certain opportunities and constraints, which were considered in the development of the Land Use Plan and Development Program. An analysis of specific items within the natural and man made environment suggested a range of development alternatives which were consistent with the current General Plan Goals and Policies.

Implementation of the Land Use Plan will change the undeveloped site to urban uses. The character of the site would be transitioned into a major focal point for the valley. Consequently, the intensity in the use of the land would increase over the existing vacant condition.

The site would be phased over an extended period. Residential and commercial uses would follow as market demand, economic conditions and public services dictate.

Residential and commercial uses allowed in the Land Use Plan and Development Program are consistent with adjacent offsite uses as well as the development trend established for the City's western area.

Region The major area-wide physical feature is the Mojave River located approximately 7 miles from the project site. Another prominent regional feature is Quartzite Mountain (4,532 ASL) located to the north of the City of Victorville.

Topography The project site is located on a gently sloping alluvial plain which has slightly rugged and eroded features. Few landforms are present to give the site unusual or unique topographic character. The only defined drainage course in the area begins west (across 395) of the project site and proceeds northerly toward Palmdale Road (State Route 18). On-site topography is relatively flat with a gradual elevation ranging from 3120 to 3205 feet above sea level (ASL). Slopes range from 0-5% across the site. Gullies exist due to the natural drainage tending to concentrate as it traverses the project site in a northeasterly direction.

Generally, the surrounding undeveloped area has similar landform features as those contained on the project site.

Development of the project will necessitate some landform modification in order to develop building pads, roadways and infrastructure.

Geologic Units The project area is underlain by a sequence of a basement complex of Pre-Cambrian granites and gneisses. Sedimentary rocks, dating from the

Paleozoic age, are made up of limestone, sandstone, quartz and mudstone. They are formed by the deposition of sediments transported by streams, oceans, ice and/or wind.

Surficial geology onsite includes Older Alluvium undifferentiated and Old Lake deposit. The Mojave Desert consists of a large alluvial plain and heavy erosion deposition. The San Gabriel and San Bernardino Mountains south of the site are the primary source for the alluvium. Older alluvium consists of well-bedded silts, clays, and sand which is interbedded with freshwater limestones. Any excavation on these soils can be accomplished with conventional earthmoving equipment, and no unstable slope conditions should be encountered utilizing standard grading procedures.

Geologic Structure

Although no known or suspected fault tracks traverse the project site, several fault systems are located in the Victor Valley region.

The predominant geologic structure of the region consists of the Helendale Fault located northeast of the site. This fault does not have a significant earthquake potential as compared to more distant active faults.

The nearest active faults include:

Fault	Distance from Project Site	Richter Magnitude Event
Helendale	10 miles northeast	6.5
San Andreas	15 miles southwest	8.2
San Jacinto	18 miles southwest	7.5

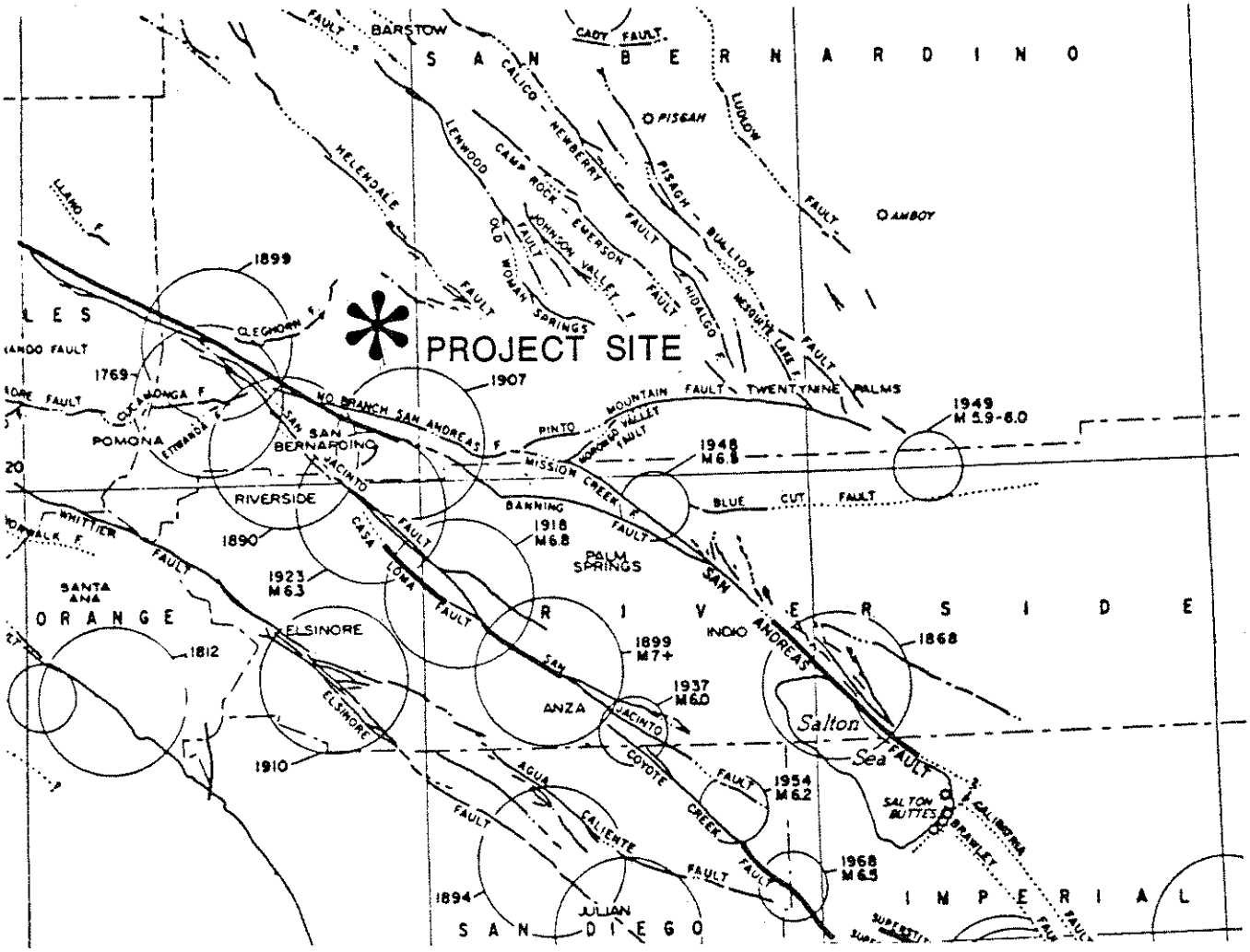
The location of these faults relative to the site are illustrated on Exhibit 3. Based on California State Division of Mines and Geology information, the project site is not located near any seismically active fault zones and, consequently, is not exposed to any unusually seismic-related hazards. However, the project is within an area which can expect moderate groundshaking intensity. In the event of a major earthquake along one of these nearby faults, in particular the San Andreas, the Victorville area may sustain property damage, possibly resulting in injury and loss of life. The degree of impact on the Victorville area depends on: (a) the distance from the quake epicenter; (b) the magnitude of the quake; and (c) the characteristic of soils and subsurface geology of the area. Maximum probable earthquakes of 7 and 8 on the Richter Scale could produce maximum expected ground accelerations of 0.2g to 0.4g.

Soil Characteristics

The soils, mapped by the United States Department of Agriculture (USDA) Soil Conservation Service (SCS), are representative of the Mojave Desert alluvial plain physiographic area. Soil units identified within the project site consist primarily of the Bryman, Cajon and Helendale Series. Project soils are delineated on Table 2 and Exhibit 4.

The Bryman series (105-109) consist of very deep, well drained soils found on terraces and old alluvial fans. They are the most common soils in the Victorville area. These soils formed in alluvium derived dominantly from granite sources. Soils in this series present only slight structural constraints to development. The development constraint is due to expansion and contraction with changing water amounts (shrink-swell). They are considered prime agricultural land at slopes less than seven (7) percent by the United States Department of Agriculture.

The Cajon Series (112-117) consist of very deep, somewhat excessively drained soils on alluvial fans and river terraces. These soils formed in alluvium derived dominantly from granite sources.



KALEIDOSCOPE North ▲ Not To Scale

REGIONAL SEISMICITY

MAJOR EARTHQUAKES AND RECENTLY ACTIVE FAULTS IN THE SOUTHERN CALIFORNIA REGION

ACTIVE FAULTS

Total length of fault zone that breaks Holocene deposits or that has had sensitive activity

Fault segment with surface rupture during an historic earthquake, or with aseismic fault creep.

● Holocene volcanic activity (Amboy, Pisgah, Cerro Prieta and Salton Buttes)

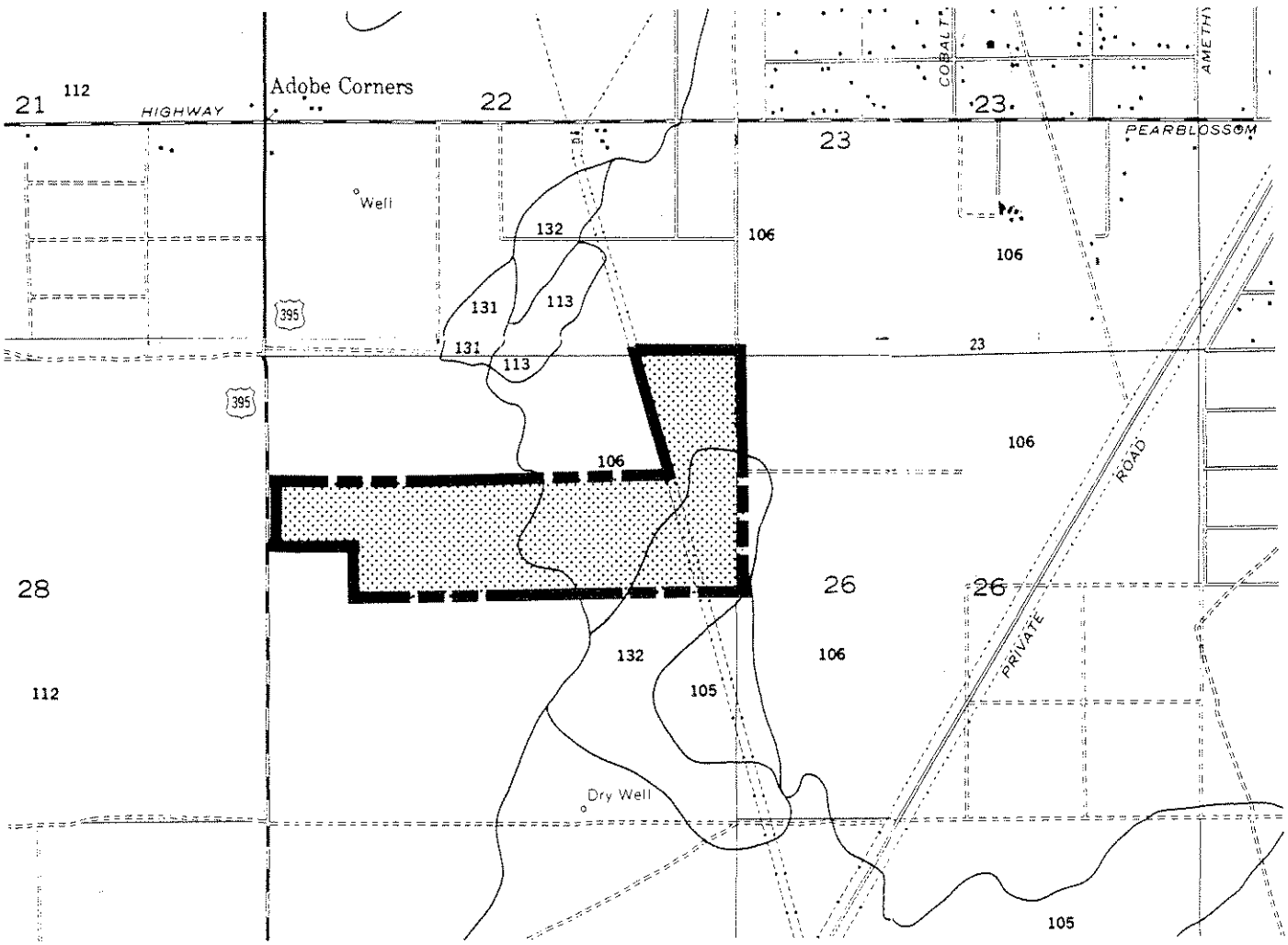
EARTHQUAKE LOCATIONS

1899 M7+

Approximate epicentral area of earthquakes that occurred 1769-1933. Magnitudes not recorded by instruments prior to 1906 were estimated from damage reports assigned an intensity VII (Modified Mercalli scale) or greater, this is roughly equivalent to Richter M 6.0. 31 moderate** earthquakes, 7 major and one great earthquake (1857) were reported in the 164-year period 1769-1933.

1963 M7

Earthquake epicenters since 1933, plotted from improved instruments. 29 moderate** and three major earthquakes were recorded in the 40-year period 1933-1973.



KALEIDOSCOPE

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SOILS

Soil Series/Map Unit

106	BRYMAN LOAMY FINE SAND
112	CAJON SAND
132	HELENDALE LOAMY SAND

The Helendale Series (131-132) consist of very deep, well drained soil on alluvial fans. These soils formed in alluvium derived dominantly from mixed sources. The United States Department of Agriculture considers these soils to be prime agricultural land.

Table 2:
Soil Survey San Bernardino County, California
Mojave River Area Series

Map Unit	Bedrock	Water Table	Road Fill	Alkaline	Shrink Swell	Slope	Wind
Bryman Series							
Bryman/106 Loamy Fine Sand	>60	Deep	Good	Neutral-	Low Moderate	2-5% >6%	Highly Erodible
Cajon Series							
Cajon/112 Sand	>60	Deep	Good	Mild-	Low Moderate	0-2% >6%	Extremely Erodible
Helendale Series							
Helendale/132 Loamy Sand	>60	Deep	Good	Mild-	Low Moderate	2-5% >6%	Highly Erodible

Hydrology/Surface Water

There are no surface water sources on the project site. The Mojave River drainage area consists of about 4,700 square miles. Near Victorville the average discharge per year is 51,440 acre-feet and the average monthly flow is 71.0 cubic feet per second. The project area is elevated approximately 400 feet above the flood plain of the Mojave River, which is located 7 miles east of the project site.

The project site is not located in the Mojave River floodplain which runs east of the site. Drainage patterns onsite (refer to Exhibit 5), like the floodplain, follow a northeasterly direction. To the southeast from the project area the Oro Grande Wash runs parallel to Interstate 15.

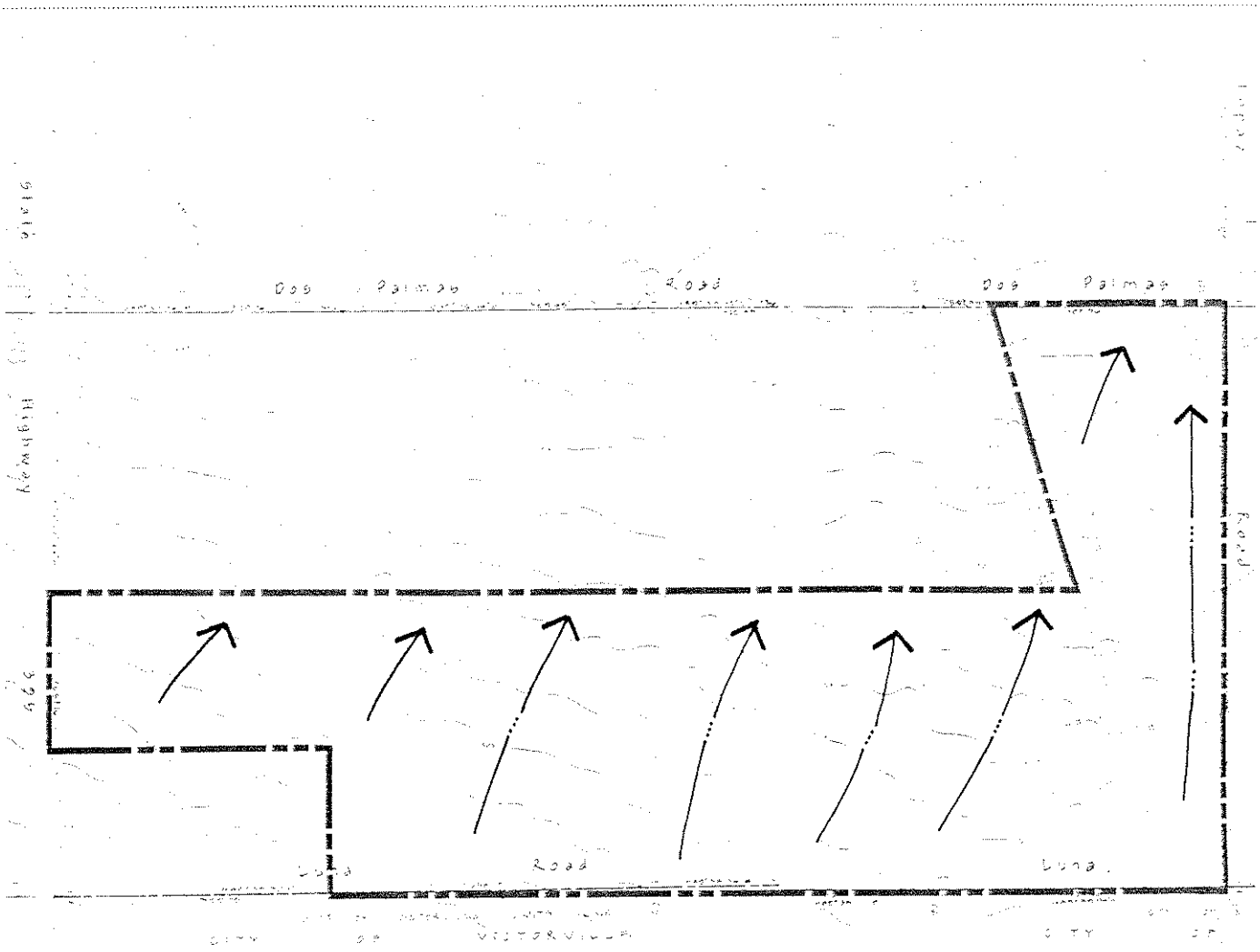
Groundwater

Subsurface water is indicated to be greater than 6 feet based on soil interpretation records. Subsurface flows have been measured and are shown to vary from approximately 20 feet below the surface near the Mojave River to approximately 50 feet within downtown Victorville. In the vicinity of the project site subsurface flows are approximately 150 feet deep. A review of the Housing and Urban Development (HUD) Flood Hazard Boundary Maps illustrates that the proposed project site is included in Zone C which is designated outside of the 500 year floodplain.

The project area is located within the Mojave River water basin (Victor Valley). The Victor Valley Water District (VVWD) which serves the project site obtains its water supply from this basin, as well as other local water districts and private wells.

The Mojave Water Agency, which monitors the basin's water supply has noted that the basin is currently being overdrafted on a regional basis. The water table has been falling over the past several years. Current studies on the overdrafting of the Mojave River Basin have thus far been inconclusive on the supply of ground water available and the amount of overdrafting occurring.

The agency has entitlement to a specified water allocation from the California Aqueduct, however, none of this entitlement has been used, and is presently considered only as a backup supply.



KALEIDOSCOPE North ▲ Not To Scale

HYDROLOGY

Existing Flow Pattern

SHEET FLOW CONDITION

Water Quality

The domestic (potable) water supply is of very high water quality. Water drawn from wells and examined for mineral content and other constituents has retained consistent high quality through many years of testing. Consequently, development of urban uses in the Victor Valley currently has had no apparent effect on water quality for the water resources contained in underground aquifers.

Water in the high desert is a rare and valuable commodity. With the exception of well and supplemental water from the aqueduct, no other sources currently exist. Water is a precious resource in Victor Valley and must be protected so that it can continue to serve the community's needs into the future.

Biota

Native Flora: The project site contains no significant vegetation concentrations. Generally, the site contains the desert-type habitat that is characteristic of the region.

Several predominate plant communities occur in the Victor Valley region. These include Joshua Tree Woodland, Creosote Bush Scrub, Salt Bush Scrub and Riparian Forest. Joshua Tree Woodland, Creosote Bush Scrub and Salt Bush Scrub communities consist primarily of drought-resistant and deep-rooted plants which maximize moisture intake and provide an anchor the plants against the frequent wind.

The dominant species identified for the project site area include Joshua Tree (*Yucca brevifolia*), creosote bush (*Larrea divaricata*), and Mormon tea (*Ephedra californica*). Major forage species are Indian rice grass, desert needle grass and filaree. An assessment of the project site was the result of a thorough review of existing information relating to biological resources of the on-site review and aerial photographic interpretation. No rare, threatened, or endangered species or habitat are known to exist onsite. Most yuccas, including the Joshua tree (Yucca brevifolia), and all cacti are protected under the State Native Plant Law. The Joshua Tree is also protected under the City of Victorville Municipal Code Section 13.32.

Clearing or any disturbance destroying the soil structure and vegetation may result in increased soil blowing. In some cases, historical clearing has influenced an increase of Indian rice grass.

Planting windbreaks will help reduce soil blowing. Among the trees most suitable for windbreaks are Aleppo Pine, Poloverde, and Athel or Evergreen Tamarisk.

Native Fauna: The majority of animal life in the Victor Valley region is found in the high desert outside of the urban influence. Fauna within the project site is minimal due to the lack of suitable habitat and the proximity of human habitation and intrusion. Animal life expected to occur within the project area includes three species of kangaroo rat (panamint, desert and merriam kangaroo rat), desert mouse and pocket mouse, zebra-tailed and whiptail lizards, gecko and desert night lizard, jack rabbits, and occasional snakes. The coyote, badger, and kit fox are the most common predators in the area. Also, the spotted skunk, desert tortoise and several species of squirrels, are known to live in the Mojave Desert in the Victorville area. Many of these mammals are nocturnal. It is anticipated that the majority of these species will relocate and migrate to surrounding vacant areas as development occurs. The desert tortoise (Xerobates agassizii) is currently listed as a threatened species. In addition, the Mohave ground squirrel (Spermophilus mohavensis) is a state-listed threatened species. The City of Victorville will require an on-site field study prior to any site grubbing and/or grading. No other rare, threatened or endangered species are known to exist in the site area.

Birds are usually sparsely distributed in the area and are expected to occur only as transients to the site, depending on food availability and cover.

Climate and Air Quality

Climate: The project area is located within the Southeast Desert Air Basin. The climate of the Victor Valley area is generally dominated by the semi-permanent high-pressure center over the Pacific Ocean and the San Gabriel and San Bernardino Mountains to the south that restrict almost all marine influence from the nearby ocean. The climate is therefore mainly a continental climate with hot summers, cool winters, low humidity, infrequent rainfall, and clear skies. Winds are mainly from the south through Cajon Pass and can carry pollutants from highly urbanized areas and into the Victorville area.

Winds and the temperature of the layers of air within the air basin generally determine the localized rate of dispersion of air pollutants near a new source as well as governing the regional transport of air pollution into and out of a given area. In Victorville, winds are either out of the south, originating in the polluted environments of western Riverside and San Bernardino Counties, or from the west where air from the San Fernando Valley entered the Antelope Valley through Soledad Canyon. In winter, especially at night, winds may become calm and allow for localized pollution stagnation, but summer daytime winds are strong from the south and transport air into the Victor Valley from other airsheds.

Temperature inversions, which control the vertical spread of air pollutants, are not as prevalent in the Southeast Desert Air Basin as in the South Coast Air Basin. Because Victorville is near one of the outflows of the South Coast Air Basin, it receives a fairly concentrated sample of air from the south. However, without the inversion to trap this inflowing coastal air mass, the pollutants quickly become diluted.

In winter, the pooling of cool air in lower elevations creates air in lower elevations creates numerous radiation (localized) inversions. These shallow inversions, in conjunction with nearby calm air, could cause localized pollution "hot spots" if there were large concentrations of industrial or vehicular sources. These inversions cause high pollution levels at night in winter in Las Vegas or Phoenix, but the Victorville area is not developed to the extent that these inversions (which burn off after sunrise) could cause significant air quality problems.

Air Quality: State and Federal agencies have set ambient air quality standards for certain air pollutants. The National Ambient Air Quality Standards (NAAQS) have been established for ozone, inhalable particulate matter, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead. The State standards are generally more restrictive than the Federal standards. A review of the State and Federal air quality standards and attainment standards reveal that existing air quality in Victorville is generally very good in contrast to the urban area of the South Coast Air Basin.

The Air Resources Board (ARB) regulates mobile emission sources and oversees the activities of County Air Pollution Control Districts (APCD) and Regional Air Quality Management Districts (AQMD).

The South Coast Air Quality Management District (SCAQMD), under a contractual arrangement with the San Bernardino County Air Pollution Control District (SBAPCD), operates an ambient air quality monitoring station in Victorville. The SBAPCD is a County agency empowered to regulate stationary sources in the Victorville area.

Historic data indicates that levels of carbon monoxide, nitrogen dioxide, sulfates, and lead have not exceeded or even approached their respective National Ambient Air Quality Standards. However, particulates which result either from

wind-blown dust or hazy, polluted air from the South Coast Air Basin, often exceed State standards, but rarely exceed Federal standards.

The main air quality concern in Victor Valley is from ozone. The amount the Federal hourly ozone standard has been exceeded ranges from 56 to 105 days over the last five years. These high levels of ozone cause the Victorville area, as part of the Southeastern Desert Air Basin (SEDAB), to be designated a non-attainment area for ozone.

Most studies have shown that the source for high ozone levels in the lee of the San Gabriels is polluted air from the South Coast Air Basin. Until emissions are sufficiently reduced in the coastal communities, the inland valleys will continue to have unhealthful levels of photochemical air pollution. The Air Quality Management Plan (AQMP) for the Southeast Desert Air Basin recognizes the interaction and interbasin transport between the south coast and the southeastern desert, and concedes that little can or needs be done locally to try to improve air quality until the South Coast Basin attains AQMP standards.

Inhalable particulate matters are those particulates which, when inhaled, can cause health problems. Particulates in the air result from various dust and fume producing operations (industry and agriculture), general incineration and atmospheric photochemical reactions. Natural sources of particulates include wind blown dust and pollens. Some particulates in the Victor Valley area may be transported in the polluted air from the South Coast Air Basin.

The number of times particulate matter - 10 micron (PM10) standards were exceeded, number from 7 to 20 times, measured every six days for the past four years.

Construction activities will disturb the dry desert soil, which then creates significant quantities of fugitive dust once the protective "desert varnish" soil crust is broken. The Environmental Protection Agency (EPA) suggests a fugitive dust emission factor of 80 pounds per acre disturbed per day of construction. Through the use of dust control such as regular watering, the emission level can be significantly reduced. Specific regulations that may apply to the project include Rule 403, which limits fugitive dust emissions.

Since these emissions are released mainly during the day when strong winds and deep thermal convection provide good local ventilation potential, there is little chance of any localized stagnation of these emissions and no resulting air quality impact except in the immediate vicinity of the construction itself would be expected.

Additional measurements and/or records of various pollutants are maintained by the San Bernardino County Air Pollution Control District with monitoring stations within the Victorville, Hesperia and Barstow areas and include the following.

Carbon monoxide (CO) is emitted primarily by motor vehicles. The highest carbon monoxide levels within the Southeastern Desert Air Basin are generally measured during the winter months. This occurs when localized inversions are formed by the cool air drainage to lower elevations (basins) in conjunction with nearby calm air. The highest one hour and eight hour average parts per million recorded by the Barstow monitoring station in the last three years have not exceeded standard excesses.

Sulfur dioxide (SO_2): This pollutant is a combustion product of sulfur or sulfur-containing fuels. Sulfur dioxide levels are also generally highest in the winter time. No sulfur dioxide standards have been exceeded in the last three years at the Barstow monitoring station.

Nitrogen dioxide (NO_2), a forerunner to the ozone, is emitted from motor vehicle engines, refineries, et al. Nitrogen dioxide is the "brownish" colored gas observed during periods of highly concentrated pollution. The standards for nitrogen dioxide (highest one hour average, parts per million) have not been exceeded in the last five years based on existing air quality data.

Lead (Pb): Gasoline powered engines and fuel pumps are a major source of airborne lead. The use of unleaded fuels and fuel pump recovering systems is helping to reduce levels of airborne lead. No excess of established standards has been recorded at the Victorville Monitoring Station.

Archaeology

A review of the California Archaeological Inventory at the San Bernardino County Museum, Archaeological Information Center and a paleontological records review was conducted at the San Bernardino County Museum, Earth Sciences Department. Also, the *National Register of Historic Places, California Historical Landmarks* (1979), and *Historical Landmarks of San Bernardino County* (Quinn 1980) were consulted to determine the proximity of historical resources to the site. The results of these literature and record searches revealed no historic or prehistoric cultural resources in the project area. In addition, the project site is located approximately one mile from the fossiliferous strata identified under cultural resources in the current Victorville General Plan.

Historical

The project site is within a larger territory once inhabited by the Serrano Indians at the time of exploration by the Spanish. In 1776, Father Garces traveled along the Mojave River east of the project site and recorded various indian villages that existed along the river at the time. During the 1940's, the San Bernardino County Historical Society and the Archaeological Survey Association of Southern California conducted numerous archaeological surveys and some excavation of certain sites along the upper Mojave River area. Research indicates that the Indians of the area were hunters and gatherers living in small extended family groups, and moved camps seasonally to secure food from animals and plants of the desert and mountains.

Although no subsurface investigation was undertaken, it is believed that no cultural resources exist below the surface, chiefly because Victorville's traditional growth occurred among the Mojave River, and as a result, most areas of historical significance are found near the river. It is unknown whether that historical and archaeological resources are not contained on the project site.

Paleontology

In 1985, the City of Victorville retained a qualified paleontologist to conduct a city-wide geologic survey to determine the location of fossil-bearing lake bed strata. The project area is located upon the fossiliferous strata identified under cultural resources in the current Victorville General Plan, Technical Background Reports.

The project area is located on fluvial and lacustrine sediments, a formation known as Shoemaker Gravel. This is underlain by the finer-grained "Harold" formation, sediments that are described by Bowen (1954:89) as follows:

"South of the Upper Narrows of the Mojave River, thin, light yellowish gray limey siltstone and claystone are distributed over several acres, indicating the former existence in very late Pleistocene or recent time, of a shallow lake. This may have been the result of uplift (damming) on the Victorville fault."

Previous paleontologic material has been recorded in the Earth Sciences Department of the San Bernardino County Museum from approximately 25 localities in the "Harold" formation. The paleontological species discovered at these localities are thought to predate the Pleistocene Rancholabrean and mammal age, and are probably more than 450,000 years old.

Aesthetics The project site is generally flat and is physically separated from surrounding properties by roadways and/or transmission lines. Variable densities included in the land use map and development program along with flexibility in land use patterns and landscape edge treatments will allow for compatibility with adjacent land uses. Major offsite views will be of the San Gabriel and San Bernardino Mountains south of the site, the Quartzite Mountain to the north, and the Granite Mountains to the east. There are minor onsite views from the surrounding roads.

Noise The project site, being vacant, is currently not a source for noise generation nor is it particularly affected by noise intrusion from any offsite sources.

The Community Noise Equivalent Level (CNEL) serves as the noise rating scale most commonly used in California for land use compatibility assessment. The CNEL scale is a 24 hour, time-weighted annual average noise level based on the A-weighted decibel. A-weighting is a frequency response of the human ear. Noise levels were determined and depicted in the Noise Element using the CNEL scale.

The normally acceptable external noise standard for residential areas is 60-65 CNEL. An interior noise level of less than 45 CNEL is acceptable and is generally attainable in areas where exterior noise levels do not exceed 60-65 CNEL.

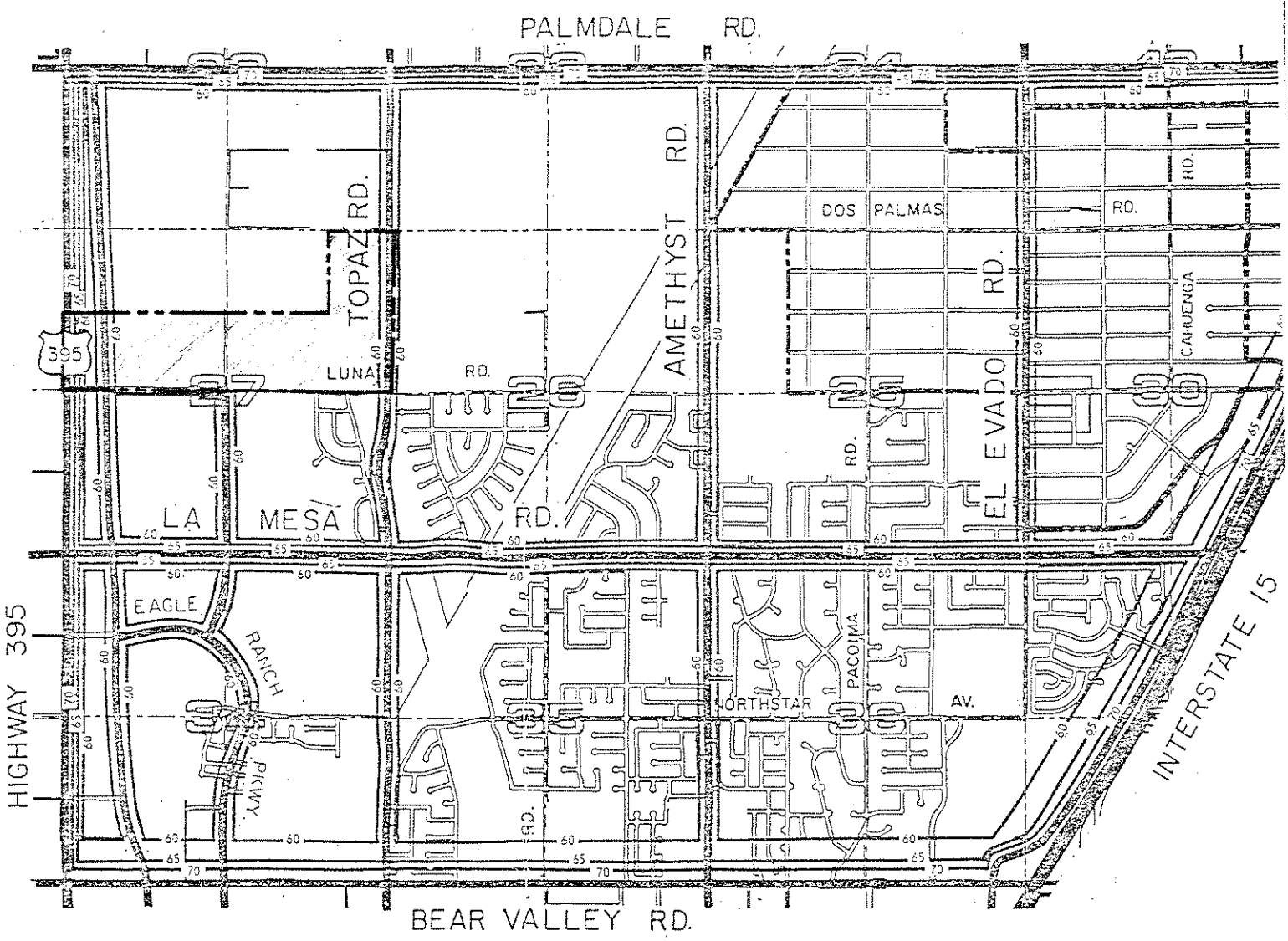
George Air Force Base is located to the north, approximately six miles from the closest point on the project site. The Department of the Air Force has prepared the 1983 Air installation Compatible Use Zone (AICUZ) study which presents both crash hazard and noise impact planning criteria for lands affected by military flight operations. A review of the study concludes that the site is within the influence of aircraft operations (CUD 13) or within the 65 dB one-mile contour.

George AFB is scheduled to close in 1992. Future land uses for George AFB are being reviewed by a joint re-use committee, representative of cities in the high desert region. The City's noise element contains maps which identify noise contours for aircraft operating out of George Air Force Base and roadways with significant daily traffic volumes.

There may be a short term impact on ambient noise levels as a result of construction related noise. Noise generated by construction equipment can reach substantial levels. Greatest potential for problems exists for the Seminary located along Palmdale Road. Construction noise may, to a lesser extent, may affect any nearby sensitive receptors.

Project related traffic may increase noise levels on both perimeter and interior roadways. The existing and future residences located adjacent to the site will be affected more or less by higher noise levels. Project related traffic may increase noise levels on streets in the area. In order to determine accurate noise levels generated by future development onsite, additional noise assessments may be needed.

Land Uses Existing land uses in the project vicinity are residential, including single family, multiple family units, mobile homes, and limited commercial uses. Most of the surrounding area is relatively undeveloped, predominantly in a natural condition. Paved and dirt roads are numerous, allowing unencumbered access into the project site. Land uses within the project site include semi-improved and dirt roads. A power line easement (Southern California Edison) bisects the project site. This power line easement terminates at a substation off of Palmdale Road. Tower structures are located within the easement. An additional power line easement (City of Los Angeles Department of Water and Power) is to the northeast and southeast of the project site.



KALEIDOSCOPE

North ▲ Not To Scale

NOISE

Legend

NOISE CONTOUR

65

DECIBEL (dB) NOISE LEVEL

The project site is located in a vicinity that has been growing over a period of years. The Civic Center and new urban core at Palmdale Road and Interstate 15 is located approximately 3 miles from the eastern portion of the site. This area has extended outwardly, developing in response to the desirable features of the area and low cost of the land. As a result, some parcels of land have remained vacant. The project site, made up of several parcels, is one of these, remaining vacant while adjacent parcels infill with development.

General Plan/Zoning

Properties surrounding the project site are designated within the residential and commercial categories. The General Plan designates the project site as residential land uses with commercial uses located along Highway 395.

The low density residential (5 DU/AC) designation and commercial designation has been established under the current General Plan for the western sphere annexation area. These designations have been established to deal with specific land use patterns through the development process.

General Plan Land Use Designations for the southwest sphere annexation area are illustrated on Exhibit 7, General Plan.

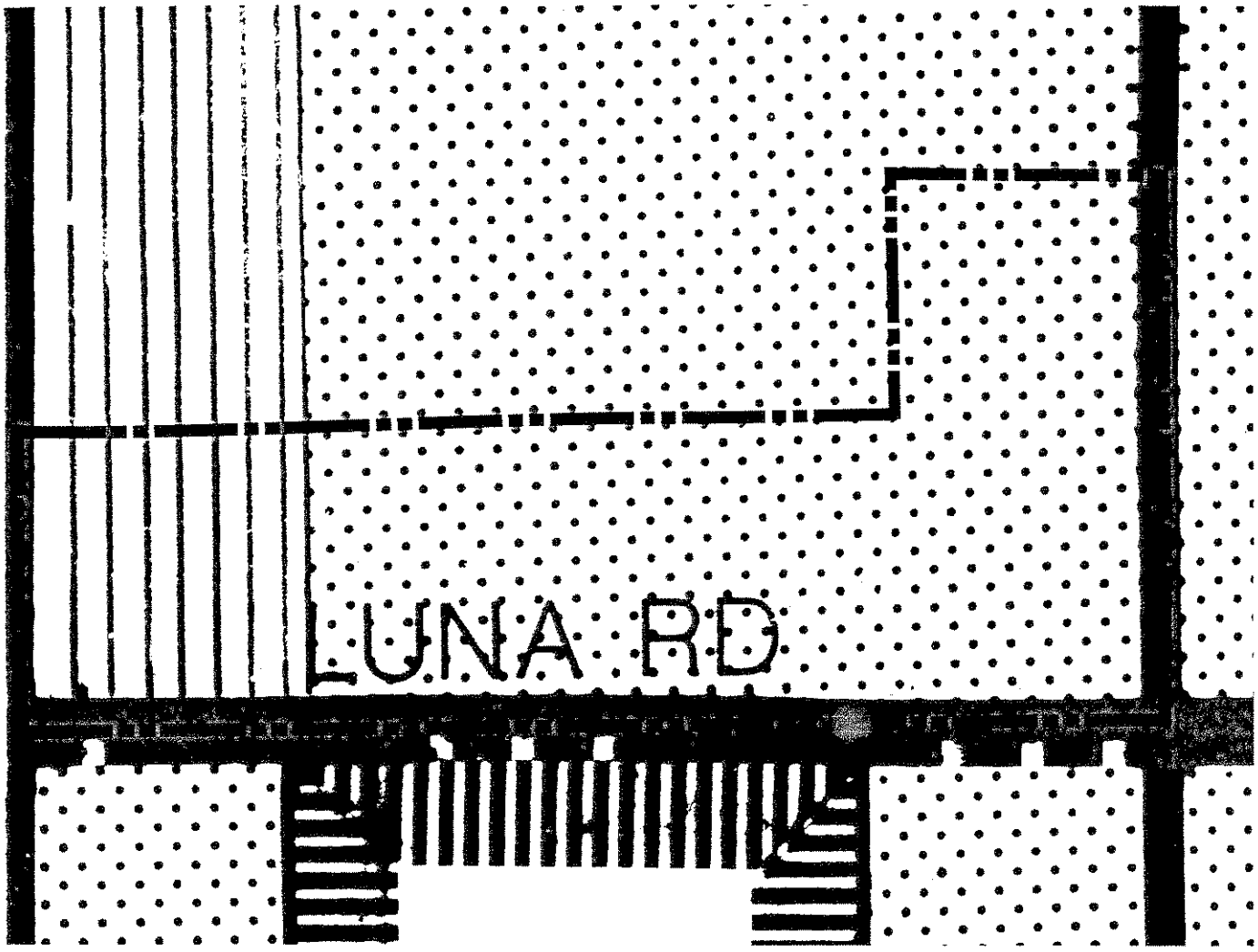
The pre-zoning adopted by the City Council and submitted to LAFCO in August, 1989 consists of single family residential and commercial for the project site. (Refer to Exhibit 8, Zoning).

The Single Family Residential District is designated by the primary symbol R-1T (3DU/AC) and is intended to allow for residential uses within the 65 Ldn AICUZ contour. George Air Force Base is being phased out by the year 1992. Future land uses are being reviewed by a joint re-use committee, representative of cities in the High Desert region. An additional Single Family Residential District is designated by the primary symbol R-1T (4 DU/AC). It is also intended for residential uses. The Transitional District (T) provisions were combined with the R-1 district provisions to utilize development standards to address buffers and/or potential noise impacts in specific areas. This is to insure orderly, proper and harmonious development within and between zone districts of different restrictions. The General Commercial District is designated by the primary symbol C-2 and provides for the widest range of commercial uses. Implementation of the land use plan would change the primarily undeveloped site to urban uses. The rural character of the site would be transitioned into a major planned residential community adjacent to the Highway 395 and Palmdale Road corridor. Consequently, the intensity in the use of the land may increase over the existing condition.

The Land Use Plan will require a General Plan Amendment and Zone Change to a Specific Plan (SP) designation.

The site would be developed over an extended period. Uses would follow as market demand and economic conditions dictate. Uses proposed in the Land Use Plan and Development Program are consistent with adjacent offsite uses as well as the development trend proposed for this area.

The Specific Plan is the mechanism through which land use and regulatory provisions will be established and enforced for that area within the Specific Plan boundaries. Zoning will be based upon regulations and standards within this Specific Plan and applicable regulations in the City of Victorville Municipal Code Zoning Ordinance (Title 18) and Municipal Code Subdivision Ordinance (Title 17).

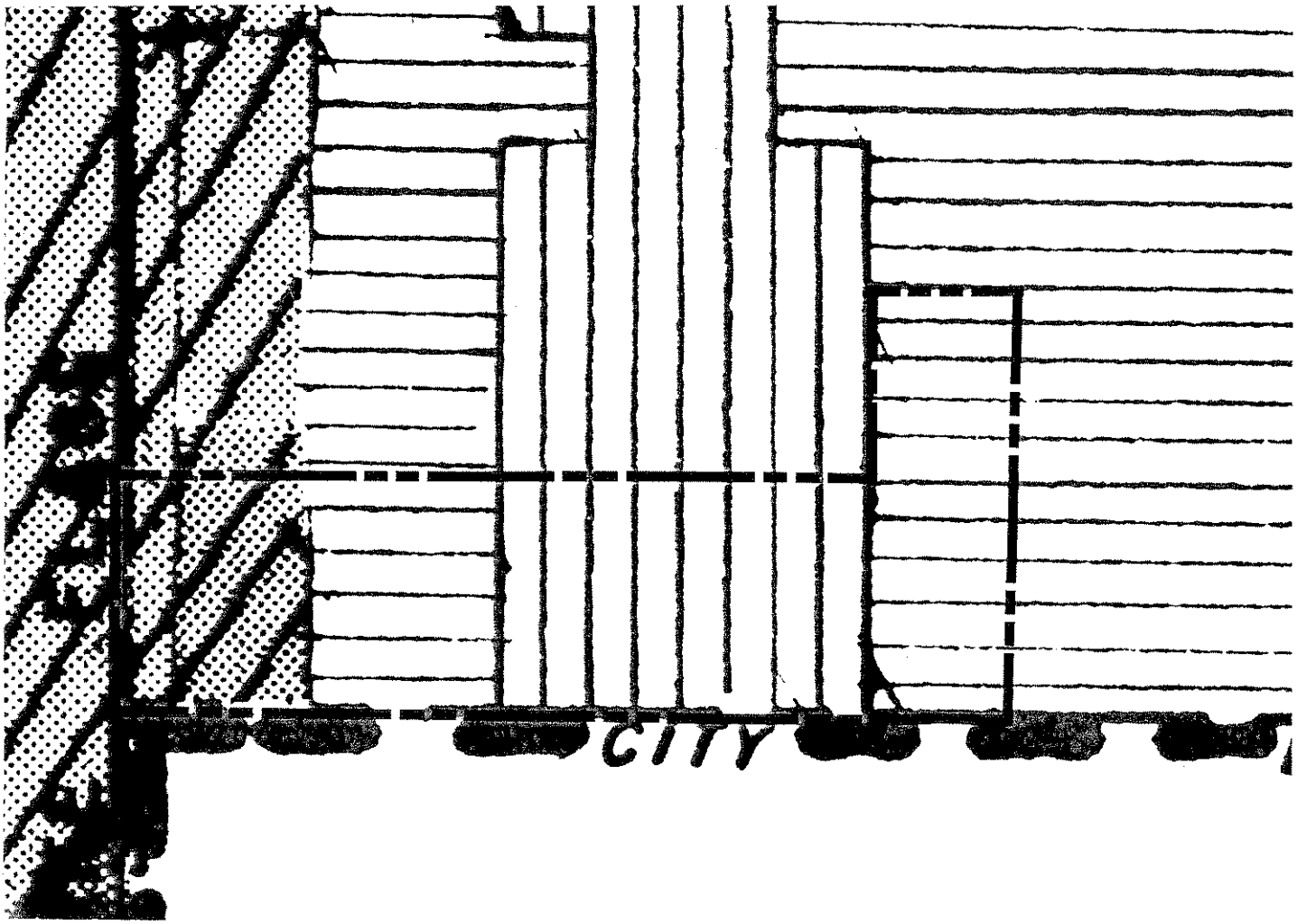


KALEIDOSCOPE North ▲ Not To Scale

GENERAL PLAN

LOW DENSITY RESIDENTIAL
5 DU/AC

COMMERCIAL



KALEIDOSCOPE

North ▲ Not To Scale

ZONING

R-1T (3 DU)
SINGLE FAMILY RESIDENTIAL DISTRICT TRANSITIONAL

R-1T (4 DU)
SINGLE FAMILY RESIDENTIAL DISTRICT TRANSITIONAL

C-2 GENERAL COMMERCIAL DISTRICT

Circulation/Traffic

The Circulation Element (revised 1991) of the current City of Victorville General Plan includes all of the roadway improvements of importance to development of the project site. These improvements are long range policies of the circulation element.

A traffic study of Talon Ranch has been completed by Kunzman Associates. (Refer to separate document revised by Kunzman Associates and dated January 1992). The project area is served by a freeway and several arterials. The freeway is 395 and the arterials are Topaz and Las Palmas Roads. Luna Road serves the project as an east/west major collector. In addition, Mesa Linda Street, an arterial, serves the project as a north/south collector. The freeway and arterials provide local and indirect regional access to the project area. All of these roads are shown on the currently adopted City of Victorville Circulation Plan.

Regional/Local Road System

Regional access to the project area is provided by Highway 395 and Interstate (I-15), a major north-south interstate freeway.

A full interchange is located at Palmdale Road and Interstate 15. The bridge structure over the freeway currently provides four lanes for through traffic. Turn lanes are provided at each end of the structures for vehicles to enter the on-ramps.

There is an interchange located at Highway 395 and Interstate 15 Freeway. The bridge structure over the freeway provides two lanes for through traffic.

Topaz Road, an arterial, is proposed as a four lane facility. A parallel Frontage Road (to Highway 395), an arterial, is proposed as a four lane facility.

Public Services: The Talon Ranch development project will be served by several public and quasi-public agencies.

Schools

The Talon Ranch development project currently lies within the Adelanto Elementary School District. The School District projects approximately 368 students for the project site. This is based on a .54 student ratio per household.

Police

The San Bernardino County Sheriff's Department is under contract to the City of Victorville to provide police protection and traffic safety services. These services include traffic and neighborhood police control, emergency calls, and crime prevention. The County Sheriff's Department would respond to the project site from its station at 14455 Civic Center Drive and/or 14199 McArt Road. Response time to outer city limits would be approximately 8 to 10 minutes. Manpower needs are based upon variable factors which include response times, volume of requests for service, and traffic conditions.

Fire

The City of Victorville Fire Department provides fire and life safety services from a fire station at Amethyst and La Mesa Road. This station is approximately one mile from the project site and is within a two minute response time.

Hospitals

Medical services will be provided to the project area from St. Mary Desert Valley Hospital and Victor Valley Community Hospital. St. Mary Desert Valley Hospital opened a new facility in December 1983, replacing the hospital's 60-bed facility. The new hospital facility has approximately 75 general acute-care beds and is maintaining an 85% occupancy rate. Victor Valley Community Hospital presently has 109 beds with 9 general acute-care beds with a 90% occupancy rate.

Recreation and Parks

The City of Victorville Recreation and Parks Department provides maintenance services to City-owned vacant lots, parks, the City Hall Complex, and street trees within right of ways. The closest facility to the project site is the Community Center at 14343 Civic Drive. The Recreation and Parks Department uses a

modification of the National Recreation and Park Standards to estimate service demands. Open space demand generated for the proposed project would be 5 acres per 1,000 residents.

Public Utilities

Public Utilities providing services to Talon Ranch are indicated in the following table.

Public Utility Agency
City of Victorville Public Works Department
Wastewater - Victor Valley Wastewater Reclamation Authority
Water - Victor Valley Water District
Solid Waste - County of San Bernardino Solid Waste Management District
Victorville Disposal, Inc.
Electricity - Southern California Edison Company
Gas - Southwest Gas Corporation
Telephone - Continental Telephone of California
Television - High Desert Cable Vision; Total TV

Utilities are more fully discussed in the Infrastructure component of the Specific Plan.

• Summary: Impacts and Mitigation Measures

Earth Resources

Site grading will slightly modify the existing terrain to prepare the land for development as necessary for drainage, infrastructure, and earthwork balancing considerations. No unusual geotechnical hazards or land subsidence constraints are expected subsequent to building construction. Mitigation includes adherence to grading regulations, and preparation of a soils analysis as necessary to recommend specific soil compaction requirements.

Hydrology

Modification of the project site surface through grading and paving is expected to increase surface runoff. Urban contaminants from surface runoff will incrementally degrade surface water quality. Mitigation includes preparation of hydrological analysis to determine storm drain specifications, and erosion measures to minimize sediment during grading, and extending the city's street-sweeping program into the area.

Biota

During site construction, the existing habitat will be removed as a result of earth movement, and wildlife will be displaced to offsite locations. The site may contain the desert tortoise (Xerobates agassizii). This species is currently listed as a threatened species by the U.S. Department of Interior, Fish and Wildlife Service. A biological study to determine if the desert tortoise and Mojave ground squirrel are located within the project site will be required by the City prior to grading approvals for the implementation of the Specific Plan. Other than the desert tortoise and Mohave ground squirrel, no other known rare, threatened or endangered species or significant habitat is located within the project site, thus additional impacts are not considered significant. After development, animal habitat will shift in favor of rodents, reptiles, and songbirds. Mitigation includes use of desert-type landscape materials to encourage the return of native wildlife. In addition, coordination between the developer and the City will take place at the time of project grading to cause as many Joshua trees as possible to be relocated into open space areas.

Air Quality

During and subsequent to site construction, emissions from construction equipment, new vehicular traffic, and indirect energy consumption will cumulatively degrade basin air resources. Construction emissions are of short-term duration. Mitigation includes encouraging the use of local shuttle systems, van pool programs and bicycles. It is also suggested that energy conservation be

practiced. Fugitive construction dust impacts will be controlled through compliance with Air Quality Management District regulations.

Archaeology/Paleontology

Site development is not expected to impact any archaeological resources as a result of site conditions and characteristics. For paleontological resources, however, site grading may expose significant vertebrate fossils. Mitigation measures are designed to minimize the impact on cultural resources, including archaeological resources, and will include additional field survey and monitoring during grading in the event that artifacts are discovered.

At first plan check review of rough grading plan, the applicant shall provide either a copy of a contract with a licensed paleontologist/archaeologist to monitor all grading operations or a letter from said licensed professional indicating that a monitoring program is not necessary during grading prior to issuance of a grading permit.

Noise

Short-term construction-related noise impacts will temporarily disrupt the local noise environment, primarily affecting adjacent residences. After project build-out, vehicles generated from proposed land uses will increase noise levels along interior and perimeter roadways. Residential uses adjacent to certain roadways may be affected by this increase. Both Palmdale Road and Highway 395 are expected to service sufficient vehicles that may affect residences adjacent to these facilities. Mitigation measures include conducting additional site-specific noise assessments to determine measures which will satisfactorily reduce noise to an acceptable level, and adherence to local noise regulations.

Land Use

Approval of the Talon Ranch development project will require amendments to the General Plan and Zoning map to a Specific Plan (SP) designation. Proposed land uses are similar to existing designations, representing more of an implementation of proposed planning for the southwestern sphere area rather than change in land use direction. Adjacent uses will be affected by change in the existing rural environment to one of urban character. Mitigation includes requiring adequate setbacks, buffers, etc. where potential land use conflicts exist.

Traffic/Circulation

Development of the site will create uses which will generate traffic on local streets significantly decreasing vehicular capacity on specific roadways and at local intersections. Approximately 11,200 ADT is forecast for project land uses, of which 1,120 are expected to occur during the evening peak hour.

Based on information provided by the City of Victorville, a seven (7) percent growth rate was utilized to a 1999 target year.

A level of service was used as the basis for roadway selection determination unless modified by the City Engineer. The Circulation System within the Talon Ranch Development follows the City of Victorville's Circulation Plan. The Circulation Analysis shows that Topaz Road and the Frontage Road are arterials including Mesa Linda Street and Dos Palmas Road and that Luna Road is a collector street (see Exhibit 13, Circulation). The Circulation Analysis summarized existing traffic conditions, project traffic impacts, and proposed mitigation measures. Refer to Appendix A for the Talon Ranch traffic study prepared by Kunzman Associates.

With the addition of the following city master-planned streets (one of which is to be constructed with funds from the Development Impact Fee (DIF) program), the circulation system will be able to provide access to the site and accommodate project traffic volumes:

1. Construction and paving of Luna Road from Amethyst Road to U. S. 395 (Luna Road not eligible for DIF funds).

2. Construction and paving of Topaz Road from Palmdale Road to Luna Road.

Because SR 395 is a State Highway, Caltrans should take the responsibility when the necessary warrants are met.

It is recommended that the City monitor the key intersections in the vicinity of the site for warrants for traffic signals as development within the surrounding area occurs. This way the development of the roadway system can parallel the development of the project area and the surrounding areas providing for gradual expansion in both building construction and public improvements. It will also help the City avoid installation of unwarranted traffic signals. As an example, fees could be collected from the various developers to be applied towards specific master planned improvements, i.e., traffic signals which are projected to be warranted due to the accumulated traffic volumes from numerous developed areas. The City could then contract for their construction at such time as they are warranted.

Public Services

Project site development will not significantly impact most community services and public utilities. The planned expansion of master planned facilities will provide for orderly growth to the area without significant impact. For police, fire, and education, site development may require additional staffing and facilities to provide adequate service to the site. Mitigation includes: 1) providing sufficient water supply to effectively control fire, 2) requiring site plan review by the Fire Department, 3) providing water conservation devices, 4) providing landscaping in accordance with City code, 5) collecting connection fees for sewage treatment, and 6) collecting funds for the Capital Facilities Improvement Program.

The aforementioned impacts and mitigation measures are based on existing information and may not be all inclusive. An additional environmental assessment may be necessary on site specific projects.

Growth Inducement

Development of the Talon Ranch Specific Plan will induce growth in the area. While this in itself may not be a significant impact, the growth inducement will require additional demands on natural and man-made resources and the environment.

3 Development Plan

• Introduction

Talon Ranch is proposed as a master planned mixed residential use community. As one of the city's few master planned communities, the project will be a unique component to the city's western area annexation. The potential also exists to set a development standard in the western sphere area that the surrounding areas can follow.

The following goals and objectives constitute policy guidelines for the Development Plan.

- Create an identifiable community that provides a variety of high quality homes for entry level couples, families, move up buyers, and promoting the sense of community;

- To reinforce the community identity of the development project through control of the project decision elements such as architecture, landscape, walls, signage, distinctive entry treatments and a viable circulation network;

- Create development flexibility to reflect anticipated marketing needs and provide for family housing that will be marketable within the Victorville area;

- Allow for an integrated circulation system which will serve residential and commercial needs without encouraging regional circulation intrusion, while encouraging alternative means of transportation;

- Conserve energy and prevent neglect of the area's natural resources through compatible site design and use of drought tolerant plant material; and

- Propose a logical phasing plan based on the marketplace and the extension and provision of infrastructure.

• Land Use Plan

Development Concept

Talon Ranch is envisioned to be a high quality Master Planned Residential Community. The development program provides for a range of residential products as well as support commercial uses. Residential uses will include a mix of housing products from affordable to move-up for a wide range of home buyers. The development of this planned community offers proximity to a major urban area while providing "rural" style desert living. All planning areas within Talon Ranch will be linked through a common road network with associated open space/recreation trail system with links to a regional open space network (i.e., utility corridors).

The land use plan is designed with sufficient flexibility to permit adjustments in housing types and densities to meet future market conditions while still achieving the objectives and design intent for Talon Ranch. The Land Use Plan is illustrated in Exhibit 9. Specific Plan Land Use Allocations as shown on Table 3 provide a breakdown of the project by density, acres, and total number of homes.

Ryder Companies will serve as the master developer and may be one of the home builders for the community. In addition, Ryder Companies will bring backbone infrastructure facilities to each development parcel.

Phasing

Phasing of development is proposed to move generally from east to west. This strategy involves a number of considerations including:

- Development growth taking place east of the project site.
- Utilities that are planned to be available at the northeastern portion of the site.
- A mix of residential land uses and densities provided through east to west phasing.

The construction of landscaped right of ways will be phased to coincide with residential construction so that increments of landscaped right of ways and open space will be developed coincidentally with increments of housing.

The phasing of the plan is designed to provide flexibility to respond to changing economic and market conditions occurring at the time of development.

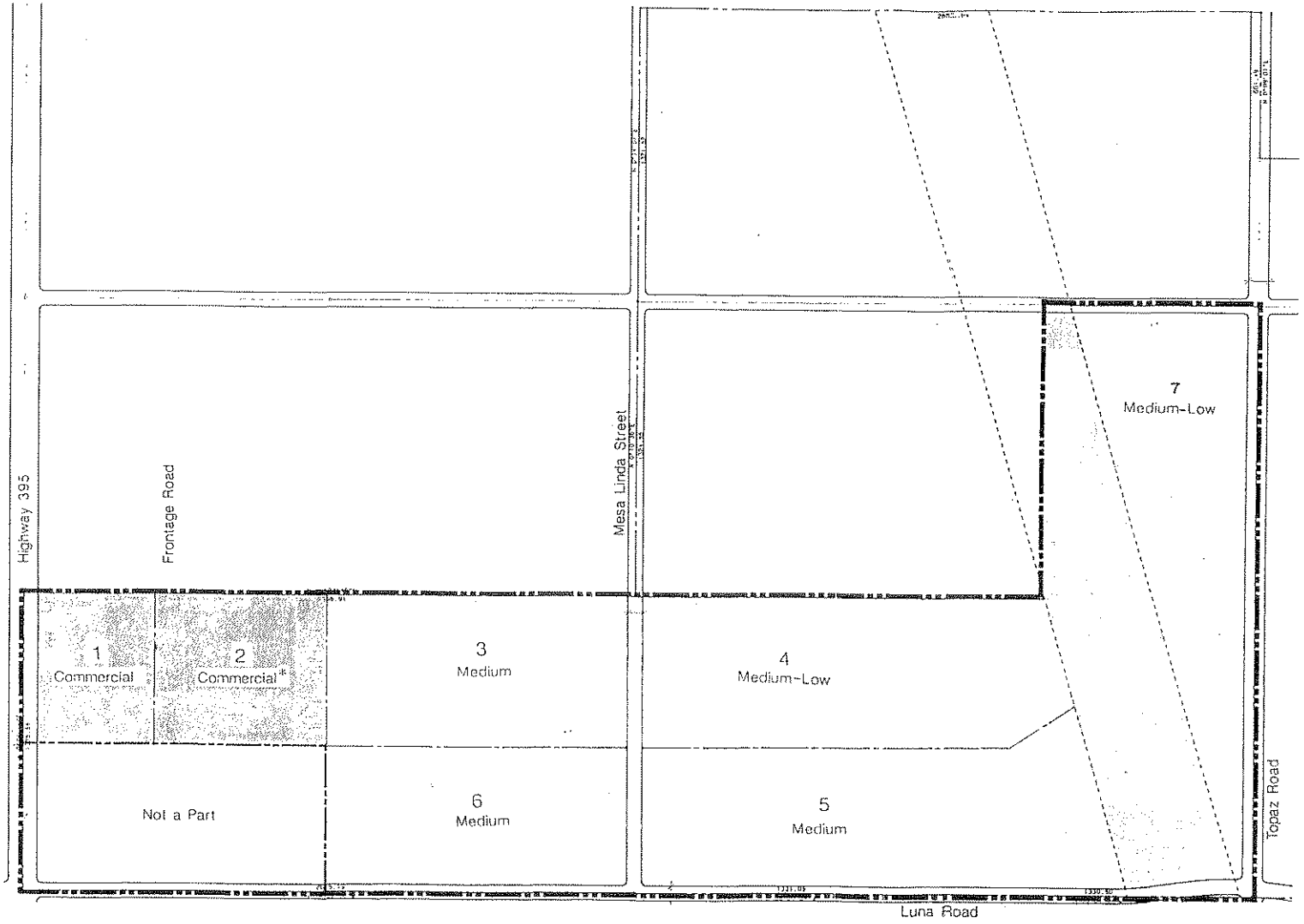
Residential Land Uses

The residential mixture at Talon Ranch has been designed to provide a strong community image and to include a broad range of densities of primary housing types. Residential products and densities are grouped and located based upon similar characteristics and site criteria. It is anticipated that Talon Ranch will include singles, young starter families, families with older children, empty nesters and retired residents.

Medium-Low Residential: A single family detached residential home on a single lot. Neighborhoods will be laid out in formal patterns with local streets and cul-de-sacs. Residential lots will range from 6,500 s.f. The density is 3-5 residential homes per acre.

Medium Residential: A single family detached residence unit on a single lot. Neighborhood tracts can be laid out in more formal arrangements along local streets and cul-de-sacs. Lots will range from 4,500 s.f. The density is 4-6 dwelling units per acre.

Specific Plan Land Use



Community Wide Road with Pedestrian Path in ROW

3 Low — Planning Area Boundary / Land Use Program

Medium-Low Residential 3-5 DU/AC

Medium Residential 4-6 DU/AC

Commercial

* High Residential Overlay 14-18 DU/AC

SCE Easement

RYDER COMPANIES

Talon Ranch

NORTH

FEET 0 200 500

METERS 0 50 100 150

KALEIDOSCOPE
A · DESIGN · CONSORTIUM
REDLANDS, CALIFORNIA (714) 734-4585

Table 3
Specific Plan Land Use Allocations

Land Use	Planning Area	Gross[3] Acres	DU Range	Total Homes	Overlay
Residential:					
Medium-Low	4	26.84	80-134	102	
(3-5 DU/AC)	7	25.60	102-153	95	(TTM 15081)
Medium	3	20.67	82-124	95	
	6	19.73	78-118	95	
(4-6 DU/AC)	5	32.52	130-195	142	
Non-Residential:					
	2	9.71	48	48	High[1]
Commercial					Residential
	1	9.71	--	--	
Major Road[2] and Open Space		11.70			
Subtotal		144.78 AC	178	577	
SCE Easement		26.29 AC			
TOTAL		171.07		577	

1 High Residential Overlay is at 8 DU/AC.

2 Major Roads are completed on half and full road sections (1/2-395; 1/2-Luna Road; Full-Mesa Linda Avenue; 1/2-Topaz Road); Roads have not been subtracted from gross acreage amounts for land use designations.

3 Based on recorded parcel maps.

Commercial Land Uses

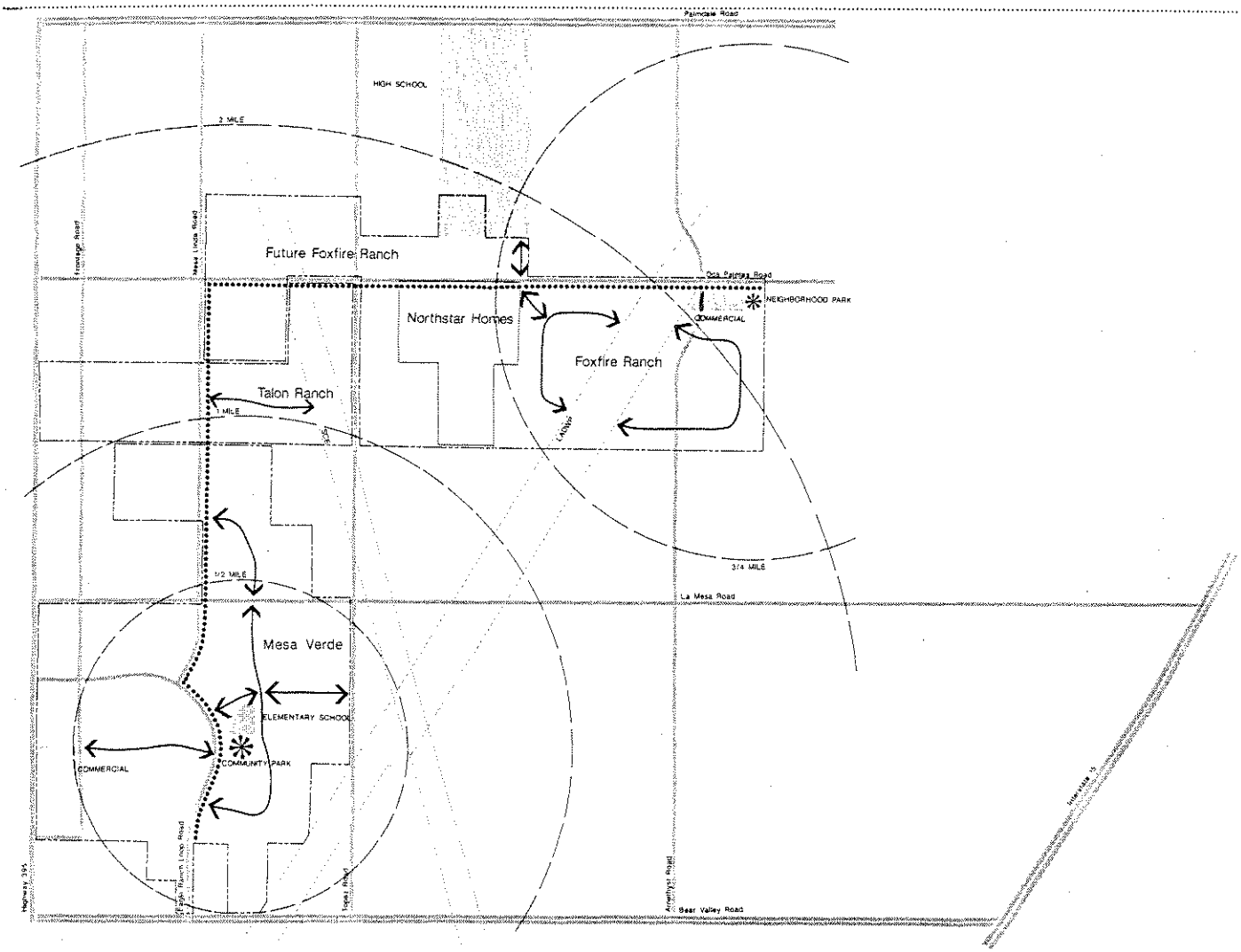
The Specific Plan proposes a commercial site adjacent to Highway 395. Uses will be community oriented, along with other local-serving retail and service uses. This site, because of its highway orientation and access, may contain some freeway serving uses that are compatible with the surrounding residential uses. To ensure that this commercial use does not become an incompatible use, depending on market conditions, a Medium Residential Overlay is included in implementing this planning area.

Community Facilities/ Trail System

The planning objective is to develop a transportation system which provides adequate automobile circulation while encouraging alternate means of pedestrian access. Emphasis is placed on the continuity of trails and open space connections between adjacent planned communities and Talon Ranch. The convenient location of commercial services and community facilities in the area will promote the use of alternative transportation modes. Refer to Exhibit 10 - Community Facilities/Trail System.

Talon Ranch, in conjunction with adjacent planned communities, will provide part of community-wide trail system (paseo). The paseo will be convenient to Talon Ranch community residents and promote an important pedestrian link between community facilities.

During the implementation stage, connections will be provided through Tentative Tract Map submittals and shall be consistent with Exhibit 10a. - Pathway Network. Connections will be made by primary paseo and/or secondary paseos along roadways, adjacent to and/or through neighborhood residential projects.

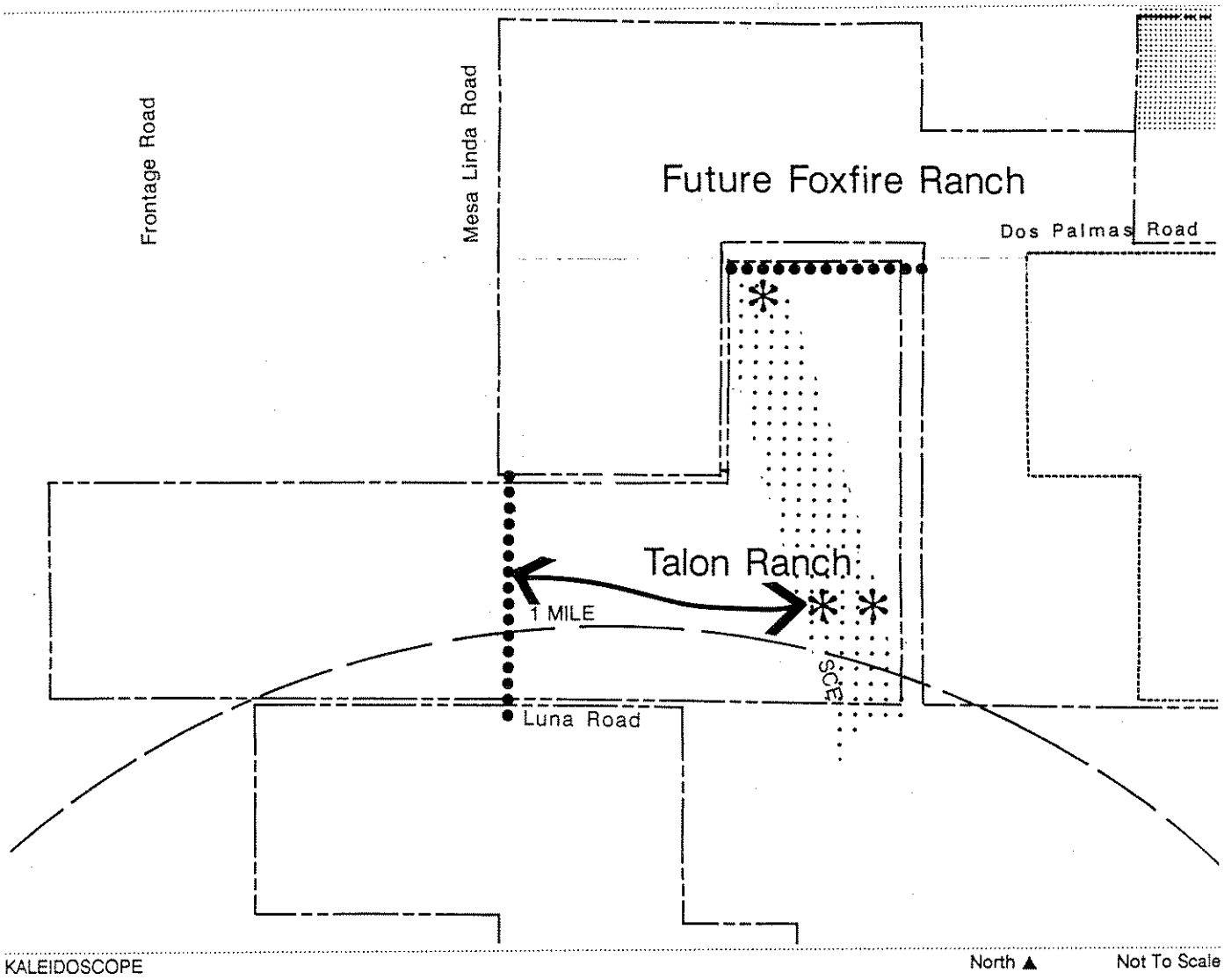


KALEIDOSCOPE

North ▲ Not To Scale

COMMUNITY FACILITIES/TRAIL SYSTEM

- COMMUNITY/NEIGHBORHOOD PARK SITE
- PROPOSED/EXISTING SCHOOL SITE
- PEDESTRIAN PASEO
- SECONDARY PASEO
- SERVICE AREA
- LOCAL ROADWAYS



PATHWAY NETWORK

- PRIMARY PEDESTRIAN PASEO
- SECONDARY PASEO WITH LOCAL STREET
- SCE EASEMENT
- ACCESS POINTS

Pathway Network

A paseo is a landscaped enhanced lineal greenbelt with a meandering pedestrian pathway. Within Talon Ranch there will be two types or levels of paseo. The primary pedestrian paseo is intended to be used community-wide and will provide a pedestrian link between the various planned communities as regulated by the Talon Ranch Specific Plan, Fox Fire Ranch Specific Plan and Mesa Verde Specific Plan.

The primary paseo will be located along the east side of Mesa Linda and the south side of Dos Palmas Roads.

The secondary paseo used within the Talon Ranch project will link various neighborhoods to the primary paseo (community-wide system) and the adjacent Southern California Edison (SCE) easement. The secondary paseo will be located within neighborhoods and work in combination with local streets.

Both paseos will be offered for dedication to the City of Victorville and can be funded through a variety of municipal finance mechanisms, such as assessment districts. The use of enhanced desert landscaping and water conservation measures is strongly encouraged. Refer to Exhibit 12 and Section 4, Infrastructure Plan, Circulation, for a discussion of Pathway Standards.

Project Design

The project can be identified and unified through design elements such as architecture, signage, landscaping, color, paving, walls, fencing, and entry treatments. Design criteria would be implemented through more detailed Tract Map submittals.

The major objective of the design criteria would be to establish general controls that will ensure consistency in design and promote visual quality within the project area.

Through innovative and imaginative designs, a level of community design can be achieved that enhances property values for the future homeowners and at the same time satisfies the City's aesthetic and visual goals for the expansion area. The design criteria can be structured to allow some variability in design. Individual neighborhoods would then be able to establish their own design character yet remain compatible with the overall community.

- **Land Use Regulations**

Purpose and Application

The purpose of the Specific Plan's Land Use Regulations is to protect the public health, safety, and welfare by implementing the planning provisions of this Specific Plan and the General Plan.

The Land Use Regulations And Standards included herein have been established to provide criteria for the development of planning/lots within Talon Ranch in the City of Victorville. This will ensure a coordinated, comprehensive planned community project and take advantage of the superior environment which results from community-scale master planning.

These Land Use Regulations and standards are developed to ensure compliance with the intent and spirit of the California Government Code Specific Plan regulations (Sections 65450 through 65507). The objective of these regulations is to allow is development flexibility to meet changing community desires and to be market driven.

The Land Use Regulations and standards combine provisions for the opportunity to propose innovative design concepts in site planning, consistent with orderly development and protection of sensitive resources. They also contain provisions

for a logical and timely sequence of review. They are further intended to implement the goals and policies of the current City of Victorville General Plan.

The included Land Use Regulations and standards are to assure that development of individual planning areas/lots within Talon Ranch is consistent with the City of Victorville's intention for development in the western annexation area.

The Land Use Regulations in this section apply to properties within the Talon Ranch Specific Plan boundaries and are intended to implement the Land Use Plan. The regulations, when referenced, work in conjunction with the City of Victorville's Municipal Codes, or in those situations where the Specific Plan's regulations and standards do not fully address an issue. The City municipal codes are set forth in Title 18 of the Victorville Municipal Code entitled "Zoning" and Title 17 of the Victorville Municipal Code entitled "Subdivision" which are in effect at the time of approval of this Specific Plan and all subsequent amendments thereto from the time of approval of this specific plan up to the adoption of Ordinance No. 1738. They are intended to be utilized by the City, developer and builder to ensure that the proposed development will proceed in an efficient and coordinated manner, to create a high quality Planned Residential Community. Unless specifically regulated otherwise by the regulations contained in this document, the regulations contained in Title 18 of the Victorville Municipal Code entitled "Zoning" and Title 17 of the Victorville Municipal Code titled "Subdivision" shall apply.

General Provisions

A. INTRODUCTORY PROVISIONS

1. CITATION

This ordinance shall be known as the "Talon Ranch Specific Plan", (Specific Plan 2-89).

2. AUTHORITY FOR THE SPECIFIC PLAN

The Land Use Regulations and Development Standards implement the Talon Ranch Specific Plan. These regulations and standards may be adopted by ordinance pursuant to Article 8, Specific Plans of the Planning, Zoning and Development Law of the California Government Code, in compliance with the provisions of Sections 65450 et seq. (California Government Code Sections 65000-66003), Sections 21100 through 21107 et seq. of the State of California Public Resource Codes, and pursuant to state and local guidelines. The Government Code authorizes cities and counties to prepare and adopt Specific Plans for portions of their areas of jurisdiction as a means to implement their General Plan.

3. CONSISTENCY WITH THE GENERAL PLAN

The Talon Ranch Specific Plan is based on the current City of Victorville's General Plan and related municipal codes. The Plan includes detailed regulations and standards necessary for the implementation of the current General Plan. The various land uses permitted by the Specific Plan are consistent with the goals and policies described in the General Plan. This Specific Plan focuses on those issues which directly affect and are of greatest importance to the Talon Ranch project area. Reference should be made to the General Plan for guidance concerning goals and policies which are not covered by the Specific Plan.

4. RELATIONSHIP TO OTHER REGULATIONS

The Specific Plan will provide the user with the information needed to determine what city goals, policies, regulations and standards will guide the development of a particular planning area as shown on the Specific Plan Land Use Plan (Refer to Exhibit 8). Areas not specifically covered by this plan, however (i.e., construction standards, health regulations, subdivision procedures, etc.), will continue to be governed by existing city codes, and no provision of this plan is intended to repeal, abrogate, annul, impair, or interfere with any existing city ordinance except as is specifically changed by adoption of this plan.

5. CONFLICT WITH OTHER REGULATIONS

Whenever the provisions of this plan impose more restrictive regulations upon buildings or structures, or on the use of lands, or require larger yards, or setbacks, or otherwise establish more restrictive regulations than are imposed or required by any other law, title, ordinance, code, or regulation, the provision of this plan shall govern.

6. AGREEMENTS

The provisions of this plan are not intended to interfere with or abrogate any easements, covenants, or other existing agreements which are more restrictive than the provisions of this plan. The Specific Plan is not intended to supersede any development agreement, entered into with the City of Victorville, if a conflict arises.

7. VALIDITY

If any section, subsection, sentence, clause, phrase, or portion of the Specific Plan is for any reason held to be invalid by the decision of any court or competent jurisdiction, such decision shall not affect the validity of the remaining portion of this plan.

B. GENERAL REGULATIONS

1. Any detail or issue not specifically covered by the provisions contained herein shall be subject to the provisions of the City of Victorville's Municipal Code. Municipal Code sections that are most applicable to the most similar issue, condition, and/or situation shall apply to all Land Use Districts within the Specific Plan.

2. Construction shall comply with applicable provisions of the Uniform Building Code as amended and the various other mechanical, electrical and plumbing codes related thereto.

3. Grading plans submitted for all projects within the Specific Plan boundary shall be accompanied by geological and soils engineers' reports which shall incorporate all pertinent recommendations.

4. Grading will be permitted outside of the Specific Plan Boundaries when it is consistent with an approved grading plan. Stockpile and borrow sites may be permitted within areas scheduled for future development, subject to an approved grading plan.

5. Model homes may be used for the sale of homes within a recorded tract if approved as a Conditional Use per Chapter 18.74 of Title 18 of the Victorville Municipal Code titled "Zoning".

6. For all residential development within this Planned Community, the developer will display a copy of the proposed Land Use Plan in all sales offices and will provide a copy of the plan to all buyers.

7. Dedication and improvements of all right-of-way shall be approved by the City Engineer.

8. Dedication of park, recreational facilities or open space shall be in conformance with the General Plan requirements of the City of Victorville.

9. Conditional Use Permits shall be processed in the Manner prescribed by Title 18 of the Victorville Municipal Code titled "Zoning".

10. PLANNING AREA BOUNDARIES

    a. Except as otherwise shown, dimensions are measured from center line of major arterials, arterials and collectors.

    b. Adjustments in the Planning Area boundaries should not exceed a cumulative total of 15% of the original size. These adjustment may result from final road alignments, geotechnical or engineering refinements to the parcel (lot), tentative and/or final tract map. They shall not require an amendment to the Specific Plan where such adjustments are consistent with the intent of this Specific Plan and the City's General Plan.

    c. Boundaries are not dimensioned in the Specific Plan and shall be established by the parcel (large lot tentative), tentative or final subdivision map.

11. All landscape and/or grading plans shall include provisions for temporary erosion control on all graded sites which are scheduled to remain unimproved during the rainy season.

12. The maximum number of dwelling units for each planning area is established in the Specific Plan Land Use Allocations Table 3. Permitted density ranges for each residential category are also specified. The total number of residential units allowed within each planning area can exceed the total allowed by the Land Use Plan by up to 10%, as long as the cumulative project total does not exceed 577 residential units. In addition, development of a lower number of dwelling units, or of a lower density than that specified for a planning area may occur without requiring an amendment to this Specific Plan. No residential planning area established by this Specific Plan shall be further subdivided except for tentative tract purposes for individual residential lot development, which may include open space, recreational amenities, paseo and/or pathway network.

13. If any portion of these Land Use Regulations is, for any reason, declared by a court of competent jurisdiction to be invalid or ineffective in whole or in part, such decision shall not affect the validity of the remaining portions thereof. The City Council hereby declares that they would have enacted these regulations and each portion thereof irrespective of the fact that any one or more portions be declared invalid or ineffective.

14. Unless otherwise provided, any ambiguity concerning the content or application of this Specific Plan shall be resolved by the Director of Planning. The decision can be appealed to the Planning Commission, and then if necessary to the City Council.

15. Areas of open space, parks, as well as paseo and/or pathway networks. shown on a Parcel (lot), Tentative Tract Maps as in-tract open space (within Planning Areas) shall be irrevocably offered for dedication to the City of Victorville prior to the recording of any Final Map dividing land within the Talon Ranch Specific Plan. The in-tract open space, parks, paseo and/or trail systems shall be deemed consistent with the Specific Plan, if approved by City.

C. DEFINITIONS

1. A "Planning Area" is defined as a homogenous area considered as an increment of the Specific Plan area and is specifically identified as a numbered lot on the Specific Plan Land Use Map.

2. Per Chapter 18.04 of Title 18 of the Victorville Municipal Code titled "Zoning" and Chapter 17.08 of Title 17 of the Victorville Municipal Code titled "Subdivision". Terms used in these Land Use Regulations and standards shall have the same definitions as given in Title 18 of the Victorville Municipal Code titled "Zoning" and Title 17 of the Victorville Municipal Code titled "Subdivision".

D. CHANGES IN THE SPECIFIC PLAN

1. ADMINISTRATIVE CHANGES

The following changes in this Specific Plan may be made without amending the plan per Chapter 18.58.070 of Title 18 of the Victorville Municipal Code titled "Zoning".

a. The addition of new information to the Specific Plan maps or text for the purpose of clarification that does not change the effect or intent of any standard or regulation.

b. Changes to the community infrastructure such as drainage systems, roads, water and sewer systems, etc., which do not have the effect of increasing or decreasing capacity in the project area beyond the specified maximum density range, and do not otherwise change the intent of any provision of this plan.

c. An adjustment in any site development standard and/or regulation including density by not more than ten percent (10%) of that otherwise specified herein and which does not increase the overall specific maximum density range.

d. Upon appeal to the Planning Commission of any decision of the Director of Planning made pursuant to this Section, the Planning Commission shall set the matter for hearing in a manner prescribed in Title 18 of the Victorville Municipal Code titled "Zoning".

e. A "transfer" of dwelling units from one Planning Area may be made to another Planning Area regardless of ownership and between residential districts. Residential density can be transferred from one land owner to another by mutual agreement provided that other requirements set forth under the Land Use Regulations and standards are met. Any transfer shall not cause the total number of units for the project to be exceeded.

2. SPECIFIC PLAN AMENDMENTS

The following changes to the Specific Plan shall require an amendment to the Specific Plan:

a. Changes to the text or maps of the Specific Plan other than the addition of new information which does not change the effect or intent of any standard and/or regulation.

b. Changes in the overall Specific Plan boundaries.

c. Increase in dwelling unit density beyond the maximum specified total project density range of 577.

d. Changes in infrastructure such as drainage systems, roads, water and sewer systems, etc., which have the effect of increasing or decreasing capacity beyond the specific density range in the project area.

e. Major changes in the designated alignment or location of the backbone infrastructure system.

f. Any other additions or deletions which may change the effect or intent of any Land Use Regulation and/or standard.

3. SPECIFIC PLAN PROVISIONS

Amendment Procedures

All proposed amendments to the Specific Plan shall be processed and acted upon pursuant to Chapters 18.76 and 18.78 of the City of Victorville's Municipal Code Zoning Ordinance.

The procedures, as outlined in California Government Code Section 65453 et. seq., and Division 20 of the Public Resource Code are to be followed when adoption of an amendment to a Specific Plan is initiated.

E. LAND USE REGULATION AND SITE RELATED STANDARDS

The regulations and standards presented below are separated into several land use districts (Refer to Exhibit 11, Land Use Regulations). Roadways shall be in conformance with the circulation plan, roadway cross-sections and standards contained in the Circulation Component of this Specific Plan.

1. ESTABLISHMENT OF LAND USE DISTRICT

a. In order to carry out the objectives and policies of the Specific Plan, the planning area is divided into the following Base Land Use Districts:

- MLR - Medium Low Residential
- MR - Medium Residential
- COM - Commercial

b. In addition, the following Overlay District is established:

1. HRO - High Residential Overlay

F. RESIDENTIAL USES AND REGULATIONS

1. General

a. As shown on Exhibit 11, Land Use Regulations, the Talon Ranch Specific Plan has allocated certain residential uses and commercial districts to the Specific Plan "Planning Areas" and to a specific residential Overlay District.

b. The Land Use Regulations shall be applied only within the boundaries of the Talon Ranch community whose land use area is defined in the Specific Plan Land Use Plan.

c. Conformance of a Residential Land Use proposal with the Talon Ranch Specific Plan shall be determined as follows:

1. The number of units within any residential-designated area of the Specific Plan Land Use Plan shall be determined by the total homes. Refer to Specific Plan Land Use Map, Exhibit 8 and Specific Plan Land Use Allocations, Table 3.

2. The minimum individual building site area provided in these regulations is a net figure which represents an absolute minimum.

d. Fences, hedges, and walls: shall comply with the provisions of Chapter 18.64 of Title 18 of the Victorville Municipal Code titled "Zoning".

e. All entry monumentation, (either free standing and/or part of a wall) for the total community including individual neighborhoods shall be limited to a maximum of eight (8) feet in height for graphic logo and identification signage. No graphic logo or identification sign above six (6) feet in height shall be more than five (5) feet in length. No graphic logo or identification signage less than six (6) feet in height shall extend more than ten (10) feet in length. All entry monumentation shall be set back to allow for sight distance per provisions in Chapter 13.64.060 of Title 18 of the Victorville Municipal Code titled "Zoning". Illumination will be by backlighting.

f. Masonry chimneys, fireplaces, wing walls and other minor architectural features, may project into any front, side or rear setback area a maximum of twenty-four (24) inches. In no event shall such chimney, fireplaces, wing walls and other minor architectural features project into any required setback area so as to be closer than three (3) feet to any property line of the building site.

g. Patio covers, open trellis and beam construction including patio covers (excludes enclosed patios) shall be permitted to be free standing and/or attached to the residential (detached unit only). Patio and/or trellis may extend to within eight (8) feet from the rear property line and five (5) feet from the side yard property line as measured from the center line of the structural supports. Detached patio covers and trellises may be extended to within six (6) feet of any building structure as regulated by the Uniform Building Code (UBC). Front yard setbacks shall exclude all structures.

h. Where noise levels may exceed community standards for residential use, developers are required to utilize construction techniques to

reduce interior noise levels within all habitable structures at or below 45 Ldn.

i. All Development is subject to the recording of a noise and avigation easement.

j. All development proposals to be reviewed by the City through the Development Plan process for the High Residential Overlay District.

k. In any planning area proposed for residential purposes, Planned Unit Developments (PUD) may be allowed. The procedure for review and approval of those Planned Unit Developments shall be those procedures established in Titles 17 and 18 of the Victorville Municipal Code. No Site Plan Review shall be required for Planned Unit Developments within the adopted Specific Plan boundaries.

2. MLR - Medium-Low Residential District

a. Purpose and Intent

The MLR area is intended to allow for development of single family detached homes. The medium-low density residential category permits a density range of three (3) to five (5) dwelling units per gross acre.

b. Permitted Uses

The following principle uses are permitted in the Medium-Low Residential District:

1. Single family detached dwellings (one dwelling per lot).
2. Parks and open space areas, recreation centers and facilities and trails.
3. LR - Low Residential, provided at a minimum said development shall comply with all development standards of said Land Use District.
4. Utility facilities not subject to discretionary approval.
5. Uses and structures typically incidental or accessory to permitted residential uses as specified in Chapter 18.66 in Title 18 of the Victorville Municipal Code titled "Zoning".

c. Conditional Uses

The following principal uses are conditional in the Medium-Low Residential District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code titled "Conditional Uses ".

1. Churches
2. Day care
3. Utility facilities that are subject to discretionary review.
4. Temporary structures and enclosures for use during construction activities (construction office) and model homes, model homes sales centers, and signs.

TABLE 4
Residential Development Standards

Category/ Density	Permitted Uses	Accessory Structures	Minimum Lot Dimensions (Width by Depth)	Building Coverage	Yards	Building Height	Minimum Parking	Street Standards
MLR: Medium Low Residential (3-5 DU/AC)	• LR uses • S.F. detached • Open space; Rec. facilities; Paseos/trails	• Fences, walls • Trellis/Patio covers • Pools	• 60 ft. x 95 ft. 65 ft. min. Corner lot • Min. area 6,000 s.f. • Cul-de-sac/knuckles and exterior curves per Section 17.48.090	40% max.	Front: 20 f. min.* Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 stories and 35 ft.	2-car garage per single family residence min.	Local Street 60 ft. ROW
MR: Medium Residential (4-6 DU/AC)	• MLR uses • ARO-Residential overlay • S.F. detached including patio homes	• Garages • Fences, walls Trellis/Patio covers • Pools	• 40 ft. x 90 ft. • 45 ft. min. corner lot • Min. area 4,500 s.f. • Cul-de-sacs/knuckles and exterior curves per Section 17.48.090	50% max.	Front: 15 ft. min. Side: 5 ft. min. Street Side: 10 ft. min. Rear: 15 ft. min.	2 stories and 35 ft.	2-car garage per single family residence min.	Local Street 60 ft. ROS

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Medium-Low Residential.

1. Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
2. The keeping of dogs, cats and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
3. An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements;
4. No accessory building designated for use as servant's quarters or as guest house shall contain any kitchen or cooking facility;
5. Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020;
6. Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.
7. Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

e. Site Development Standards

1. Building site area: Six thousand (6,000) square foot minimum.
2. Building site width: Sixty (60) feet minimum. Cul-de-sacs, knuckles and exterior curves on local streets shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision".
3. Building site depth: Ninety-five (95) feet minimum.
4. Building site height: Thirty-five (35) feet maximum. No building shall have more than two and one half (2-1/2) stories.
5. Building site coverage: Forty (40) percent maximum for all buildings on the site.
6. Yard Requirements:
   a. Front Yard: Twenty (20) feet minimum. Fifteen (15) feet where residence is closer to street than garage.
   b. Side Yard: Five (5) feet minimum.
   c. Rear Yard: Fifteen (15) feet to property line.
   d. From any property line abutting a street of a corner lot, ten (10) feet minimum, subject to the exceptions set forth in Chapter 18.64.040, Title 18 of the Victorville Municipal Code titled "Zoning".
7. Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning". Two (2) spaces are required for each dwelling unit, and shall be within a fully enclosed garage.

3. MR - Medium Residential District

a. Purpose and Intent

The MR District is intended to allow for development of single family detached: patio home, garden homes, cottage homes and attached:

duplex homes. The medium density residential category permits a density range of four (4) to six (6) dwelling units per gross acre.

b. Permitted Uses

The following principle uses are permitted in the Medium Density Residential District:

1. Single family dwellings (detached, one dwelling per lot or attached, two dwellings per lot.)
2. Parks and open space areas, recreation centers and facilities and trails.
3. MLR - Medium Low Residential, provided at a minimum said development shall comply with all development standards of said Land Use District.
4. Utility facilities not subject to discretionary approval.
5. Uses and structures typically incidental or accessory to permitted residential uses as specified in Chapter 18.66 in Title 18 of the Victorville Municipal Code titled "Zoning".

c. Conditional Uses

The following principal uses are conditional in the Medium Density Residential District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code titled "Conditional Uses ".

1. Churches
2. Day care
3. Community Club House
4. Utility facilities that are subject to discretionary review.
5. Temporary structures and enclosures for use during construction activities (construction offices) and model homes, model homes sales centers and signs.

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the Medium Density Residential.

1. Recreational Vehicles may be stored on any developed single family residential lot in compliance with Section 18.16.040(2) of the Victorville Municipal Code.
2. The keeping of dogs, cats and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
3. An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements;
4. No accessory building designated for use as servant's quarters or as guest house shall contain any kitchen or cooking facility;
5. Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020;
6. Child care not to exceed the child limits of a large family day care as specified in Title 22 of the California Administrative Code and licensed by the California Department of Social Services.

7. Home school of not more than eight children, provided not more than six children are from outside of the resident family, shall be allowed.

e. Site Development Standards

1. Building site area: Four thousand and five hundred (4,500) square feet minimum.
2. Building site width: Forty (40) feet minimum. Cul-de-sac, knuckles and exterior curves of local streets shall comply with Chapter 17.48.090 of Title 17 of the Victorville Municipal Code titled "Subdivision".
3. Building site depth: Ninety (90) feet minimum.
4. Building site height: Thirty-five (35) feet maximum. No building shall have more than two and one half (2-1/2) stories.
5. Building site coverage: Fifty (50) percent maximum for all buildings on the site.
6. Yard Requirements:
   a. Front Yard: Eighteen (18) feet minimum from property line. Garage doors shall be sectionalized for all front yard setbacks less than twenty (20) feet. Fifteen (15) feet where residence is closer to street than garage.
   b. Side Yard: Five (5) feet minimum.
   c. Rear Yard: Fifteen (15) feet minimum.
   d. From any property line abutting a street of a corner lot, ten (10) feet minimum, subject to the exceptions set forth in Chapter 18.64.040, Title 18 of the Victorville Municipal Code titled "Zoning".
7. Off-street parking in compliance with Chapter 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning. Two (2) spaces are required for each dwelling unit, and shall be within a fully enclosed garage.

G. COMMERCIAL USES AND STANDARDS

1. General

a. All development plans to be reviewed by the City pursuant to Chapter 18.71 of the Victorville Municipal Code entitled "Site Plan."

2. General Commercial District

a. Purpose and Intent

The purpose of these provisions is to regulate the design and development of projects of a commercial nature in the designated Specific Plan area. It is also the intent of this section to permit a variety of compatible uses and facilities supportive of the residential uses within the Specific Plan area and of the general community.

b. Permitted Uses

All uses shall be conducted within a completely enclosed building, however, the open storage of materials, products and equipment is allowed if approved pursuant to Chapter 18.74 of Title 18 of the Victorville Municipal Code entitled "Conditional Uses".

The following principal uses are permitted in the Commercial District:

1. Any and all uses in this zone district providing drive-thru service shall be approved by the director of planning, excepting those adjacent to residential zones.
2. Any uses permitted in the C-1 District;
3. Any uses permitted in the C-2 District;
4. Hotels and motels;
5. Office buildings, business and professional;
6. Retail stores as follows:
   a. Antique stores
   b. Automobile, motorcycle, boat and trailer sales and service, provided that repair work will be conducted wholly within a building
   c. Art shops
   d. Audio and video equipment and supplies
   e. Auto parts stores (new parts only)
   f. Bar and cocktail lounges
   g. Bookstores
   h. Clothing stores, including specialty shops
   i. Cosmetic stores
   j. Crafts shops, including stained glass studios and the operation of kilns, (gas and/or electric), provided that the kilns not exceed ten (10) cubic feet each in volume nor shall they exceed two (2) in number
   k. Florists
   l. Gift shops
   m. Hobby shops
   n. Home furnishing stores, interior decorators
   o. Household appliances, sales and service
   p. Ice cream parlors and soda fountains
   q. Leather goods stores
   r. Music stores
   s. Novelty shops
   t. Paint stores
   u. Pet shops or taxidermists
   v. Photography equipment and supplies
   w. Picture framing shops
   x. Sporting goods stores
   y. Toy stores
   z. Weaving and knitting shops.
7. Services, as follows:
   a. Automobile and equipment rental agencies (no trucks over two and one-half tons or heavy equipment)
   b. Banks and financial institutions
   c. Billiard halls and bowling alleys or other similar indoor amusement facilities
   d. Blueprinting and photostating
   e. Business schools or private schools operated as a commercial enterprise
   f. Cleaning and pressing establishments
   g. Heating and air conditioning retail and service
   h. Laundries
   i. Locksmith shops
   j. Medical and dental laboratories
   k. Museums
   l. Repair shop for clothing, household appliances, jewelry, shoes
   m. Restaurants, cafes or coffee shops, with or without entertainment and/or liquor and/or alcoholic beverages being sold or dispensed on the premises

n. Ticket agencies
o. Travel agencies

8. Wholesaling, providing the maximum floor area does not exceed six thousand square feet;

9. Other uses similar to the above if approved by the Planning Commission.

c. Conditional Uses

The following principal uses are conditional in the Commercial District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code titled "Conditional Uses ".

1. Any uses enumerated in this Zone District providing drive-thru service adjacent to residential zones.
2. Any uses enumerated in this Zone District selling alcoholic beverages for either on-premise or off-premise consumption within 300 feet of a residence within a residential zone measured from a property line; and/or when a finding recommending to the Department of Alcoholic Beverage Control that public convenience or necessity will be served by the Alcoholic beverage sale is needed consistent with Business and Professions Code Section 23958.4, and required by Section 18.58.190 entitled "Finding of Public Convenience or Necessity".
3. Animal hospital or veterinary clinic
4. Assembly uses, i.e. churches, clubs, social halls, lodges and theaters
5. Automatic and self service car wash
6. Automobile service station
7. Retail fuel dispensing facility
8. Day nurseries/day care centers
9. Self service storage facilities
10. Public services, i.e., fire station

d. Special Regulations: All permitted and conditional uses and incidental to those uses and accessory buildings when located on the same lot, within this district shall be subject to Chapter 18.30.040 in Title 18 of the Victorville Municipal Code titled "Zoning".

e. Property Development Standards

Commercial property development shall be implemented through Site Plan Review procedures, within Title 18 of the Victorville Municipal Code. Any standard set forth within this Specific Plan shall be used as a benchmark by which to evaluate Site Plan applications.

H. OVERLAY DISTRICT

1. HRO - High Residential Overlay District

The purpose of the HRO Overlay District provides development flexibility to meet market demands of the "planning area" adjacent to 395. All residential development within the HRO-High Residential Overlay District shall meet the following regulations and standards.

a. Purpose and Intent

The HRO Overlay District is intended to allow for development of multiple family residences, townhomes, and condominiums, provided the maximum number of dwelling units as specified within this document is not exceeded. The High Density Residential category permits a maximum density of fourteen (14) to eighteen (18) dwelling units per gross acre.

b. Permitted Uses

The following principle uses are permitted in the HRO District:

1. Multiple family dwellings including, but not limited to, residential condominium projects, or residential stock cooperatives.
2. Apartment project.
3. Parks and open space areas, recreation centers and facilities, and trails.
4. Utility and facilities not subject to discretionary approval.
5. Uses and structures typically incidental or accessory to permitted residential uses.

c. Conditional Uses

The following principal uses are conditional in the HRO District and shall be permitted only if approved pursuant to Chapter 18.74 of the Victorville Municipal Code titled "Conditional Uses ".

1. Utility facilities that are subject to discretionary review.

d. Accessory Uses

In addition to the general regulations governing accessory uses, the following specific limitations and special regulations shall apply to the HRO District.

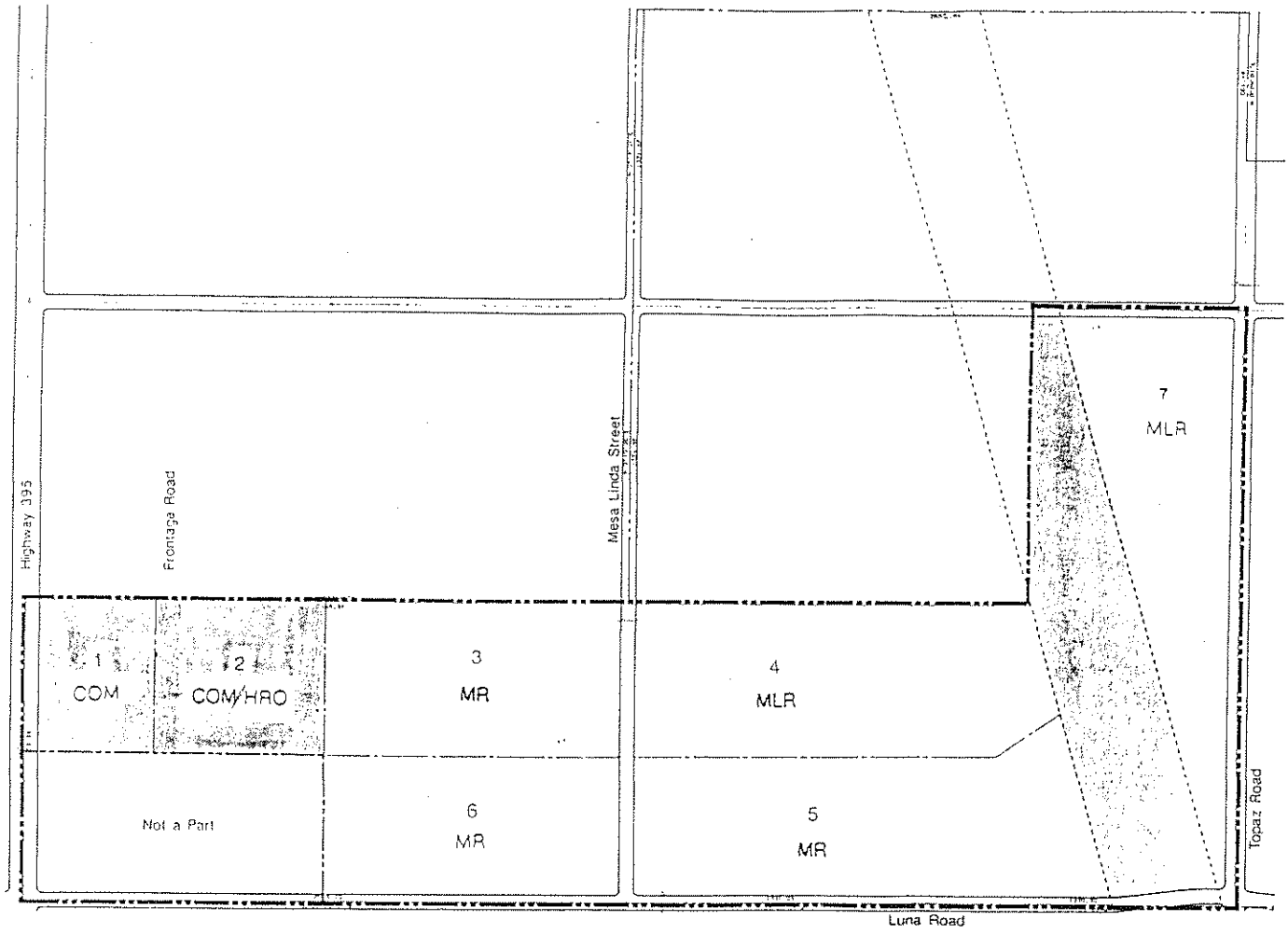
1. The keeping of dogs, cats and birds shall be subject to the regulations set forth in the Victorville Municipal Code.
2. An accessory building may occupy part of a required rear yard and/or side yard along the interior side lot line. An accessory structure may be constructed to the property line of said rear and side yard provided that the roof system does not extend beyond the property line and shall meet all building code requirements.
3. Home occupations shall be permitted as approved by the Planning Commission pursuant to Section 18.66.020.

e. Site Development Standards

1. Building site area: Ten thousand (10,000) square feet minimum.
2. Land area per unit: One thousand six hundred (1,600) square feet average minimum.
3. Building site width: Seventy (70) feet minimum.
4. Building site depth: One hundred (100) feet minimum.
5. Building height: Thirty-five (35) feet maximum. No building shall have more than two and one half (2-1/2) stories.
6. Building site coverage: Fifty (50) percent maximum.
7. Yard Requirements:
   a. Front Yard: Fifteen (15) feet minimum.

b. Between buildings: (10) feet minimum between residential buildings within a project(s). Width of side yard along the interior lot line, five (5) feet minimum.
c. Rear Yard: Fifteen (15) feet minimum.
d. From any property line abutting a street of a corner lot, ten (10) feet minimum, subject to the exceptions set forth in Chapter 18.64.040, Title 18 of the Victorville Municipal Code titled "Zoning".

8. Fences and walls shall comply with Chapter 18.64 of Title 18 of the Victorville Municipal Code entitled "Zoning".
9. Off-street parking: In compliance with Section 18.60 of Title 18 of the Victorville Municipal Code titled "Zoning".
10. Site Plan requirement: All building sites within the High Residential Overlay shall require an approved Site Plan pursuant to Chapter 18.71 prior to securing a building permit.
11. No recreational vehicles unless in an approved storage area.
12. Open Space: Recreational living space for recreation, common open space and visual relief shall be provided for each residential unit at a standard three hundred fifty (350) square feet.
13. Trash Enclosures: In compliance with Chapter 18.58.120 of Title 18 of the Victorville Municipal Code titled "Zoning".



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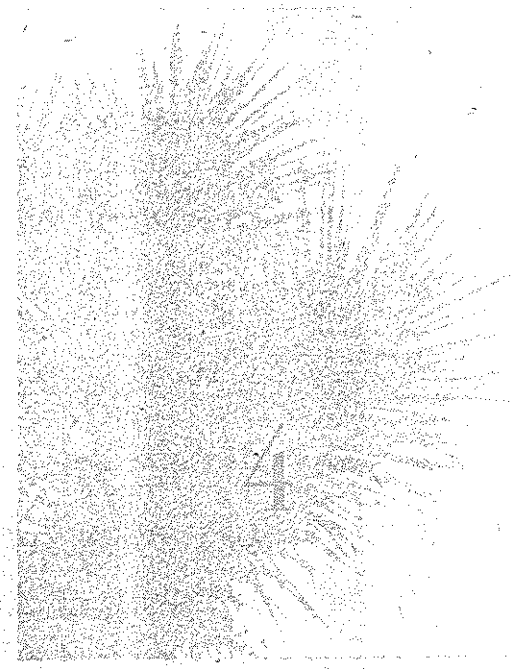
LAND USE REGULATIONS

Districts

MLR	MEDIUM-LOW RESIDENTIAL
MR	MEDIUM RESIDENTIAL
COM	COMMERCIAL
HRO	HIGH RESIDENTIAL OVERLAY

I N F R A S T R U C T U R E P L A N



4 Infrastructure Plan

• Circulation

Area Wide Concept

The circulation plan provides the transportation system and basic standards for safe, efficient vehicular movement within and around the project area. This plan consists of alignments for arterials and collector roadways and their rights-of-way, and typical roadway sections (Refer to Exhibits 12, 12a. and 13).

The circulation plan has been developed based on the ultimate buildout of the Talon Ranch community.

Circulation System

Circulation within the Talon Ranch community will be provided by a roadway system keyed to the existing street system and based upon ultimate circulation patterns depicted on the General Plan's Circulation Map.

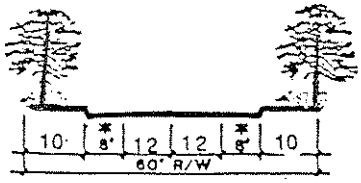
Emphasis is placed upon providing the primary access routes to link the various neighborhoods with Palmdale Road, La Mesa Road, Amethyst Road and Highway 395 with the existing I-15 and SR 395 interchanges. The backbone of the Talon Ranch Circulation System consists of arterials and collector roadways containing vehicular and non-vehicular functions. Roadway classifications include arterials, collectors and local streets. A series of pedestrian pathways can reinforce the roadway system through the provision of minor intercommunity pedestrian loops.

The following describes the characteristics of the various roadway classifications which are part of the Specific Plan circulation system:

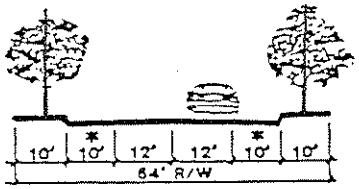
Arterials: Arterials service the immediate vicinity of the site for through traffic and provide linkages from super arterials, arterials and collectors to the regional transportation corridors. Topaz Road, which runs north/south through the eastern portion of the project site, will be improved to its 84 foot right of way or a minimum of four travel lanes reflecting its arterial status as designated on the current General Plan Circulation Map. It is proposed that no on-street parking or individual driveways are allowed on either side of this arterial. A parallel arterial (frontage road) will run north/south to Highway 395 (Super Arterial). This arterial will be located approximately 660 feet to the east of Highway 395. It will be improved to its 84-foot right of way.

Collectors: Collectors service the primary areas of the project and links Talon Ranch to the regional transportation corridors. The collectors will have a 64-foot right-of-way to accommodate vehicular activity and a minimum of two travel lanes. The collector roads, as shown on Exhibit 13, allow east/west and north/south traffic.

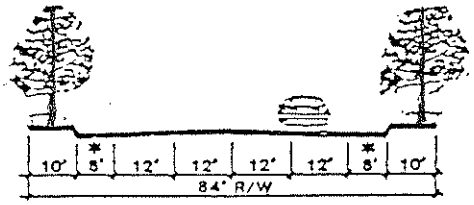
LOCAL STREET



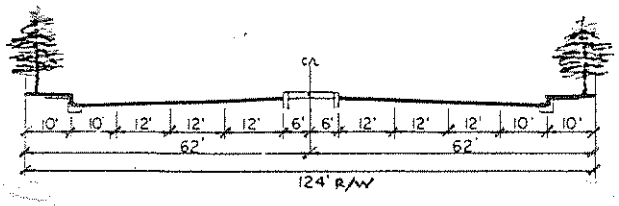
COLLECTOR



ARTERIAL



SUPER ARTERIAL



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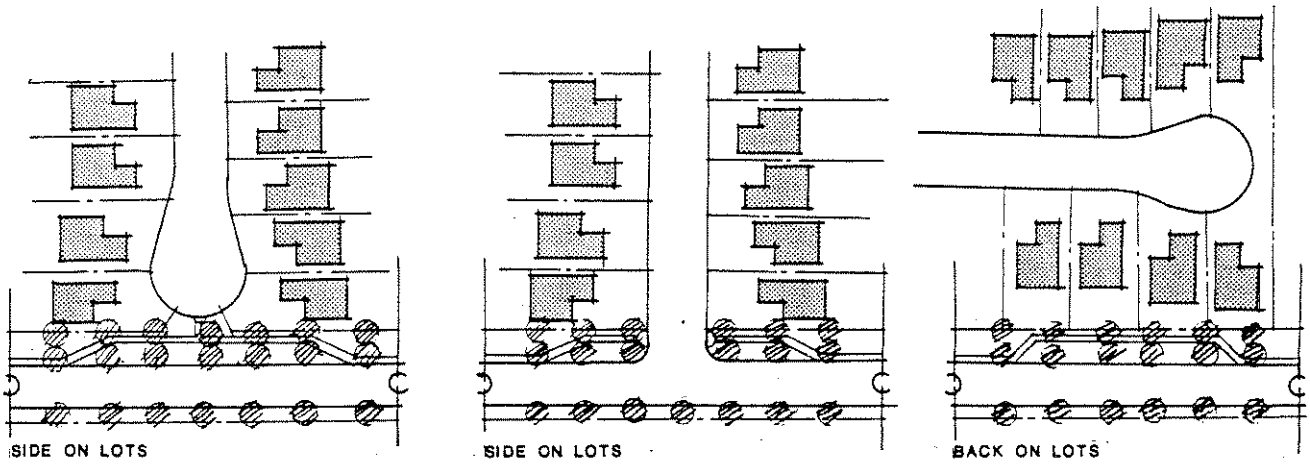
ROADWAY STANDARDS

Section



Plan

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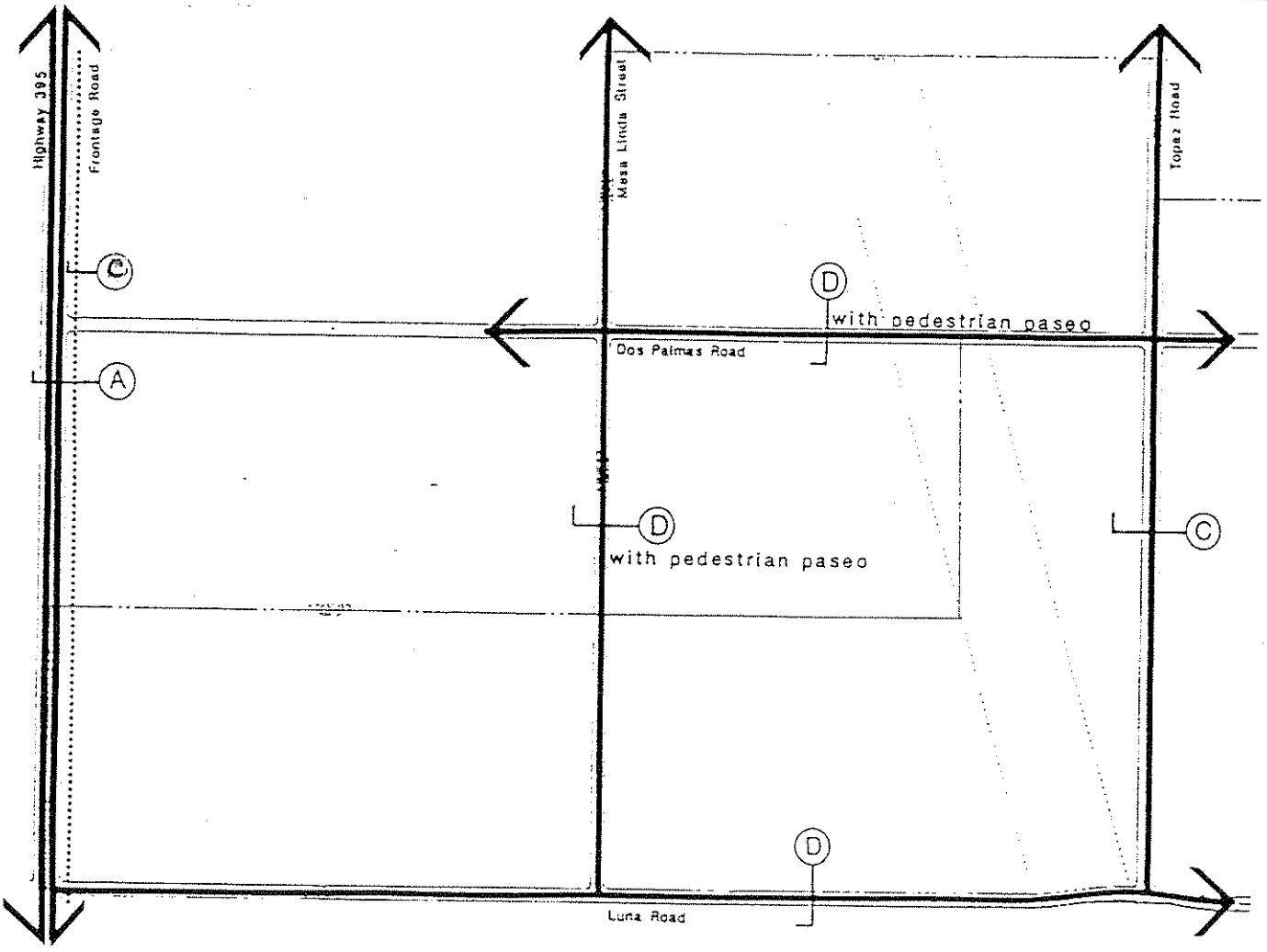
PASEO SECTIONS/PLANS



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CIRCULATION

A	SUPER ARTERIAL
C	ARTERIAL
D	COLLECTOR

Luna Road, an east/west collector, runs along the southern boundary of the project. It will be improved to half its 64 foot right-of-way adjacent to the project. Dos Palmas Road, also an east/west collector, runs along the northern project boundary and will be improved to half its 64 foot right-of-way as well. Mesa Linda Road, a north/south collector, bisects the project and will be improved to its full 64 foot right-of-way.

The south side of Dos Palmas and the east side of Mesa Linda Roads will serve as a primary pedestrian paseo where it is adjacent to or within the project. Refer to Exhibit 10a. - Pathway Network and Exhibit 12a. - Paseo Sections/Plans. In addition to the standard rights-of-way, an additional 16 foot landscape area (south side of Dos Palmas Road and east side of Mesa Linda Road) will be offered for dedication. This will create a lineal greenbelt with a 6 foot meandering pedestrian pathway linking the various community facilities. Residential lots that are adjacent to the primary paseo and/or a collector street are allowed to front on, side on (in combination with a local street), side on (in combination with an extended cul-de-sac) and/or back on, or a combination of the aforementioned. A maximum of one third (1/3) of the units located adjacent to the primary paseo and/or collector street may be backed on. However, the one third (1/3) can be exceeded by the applicant with supporting information, which will be reviewed and approved by the Planning Commission to insure land use compatibility. All residential units adjacent to the primary paseo shall be single story. On-street parking is allowed; however, individual driveways should be minimized on the primary paseo side of the street.

Local Streets: Local streets will service each residential neighborhood within the project and are designed with a 60 foot right-of-way or a minimum of two travel lanes to accommodate automobiles and pedestrians.

One local street within the project will incorporate a secondary paseo as shown on Exhibit 10a. - Pathway Network. In conjunction with the standard right of way, an additional 11-foot landscape area will be offered for dedication. A 6 foot meandering pedestrian pathway will be located on one side of the road within this landscape area. The secondary paseo will also work in combination with local streets to provide for pedestrian circulation. Within the Talon Ranch project, the secondary paseo will link various neighborhoods with the primary pedestrian paseo along Mesa Linda Road and the Southern California Edison (SCE) easement. Access points to the SCE easement will be provided and will be a minimum of 10-feet wide with landscaping. Residential lots that are adjacent to the secondary paseo are allowed to front on, side on (in combination with a local street), side on (in combination with an extended cul-de-sac) and/or back on, or a combination of the aforementioned. However, a maximum of one third (1/3) of the units located adjacent to the secondary paseo may be backed on. All residential units adjacent to a secondary paseo shall be single story. On-street parking is allowed; however, individual driveways should be minimized on the secondary paseo side of the street.

Circulation Analysis

The following is a brief summary of the Circulation Analysis prepared by Kunzman Associates (revised January 1992) for the Talon Ranch Specific Plan. Based on information provided by the City of Victorville, a seven (7) percent growth rate was utilized to a 1999 target year.

A level of service was used as the basis for roadway selection determination unless modified by the City Engineer. The Circulation System within the Talon Development follows the City of Victorville's Circulation Plan. The Circulation Analysis shows that Topaz Road and parallel frontage road are arterials and that Mesa Linda Street, Dos Palmas Road and Luna Road are collector streets (Refer to Exhibit 13).

The study recommends that the City monitor the key intersections in the vicinity of the site for warrants for traffic signals as development within the surrounding area occurs. This way the development of the roadway system can parallel the development of the project area and the surrounding areas providing for gradual expansion in both building construction and public improvements. It will also help the City avoid installation of unwarranted traffic signals. As an example, fees could be collected from the various developers to be applied towards specific master planned improvements, i.e., traffic signals which are projected to be warranted due to the accumulated traffic volumes from numerous developed areas. The City could then contract for their construction at such time as they are warranted.

Because SR 395 is a State Highway, Caltrans should take the responsibility when the necessary warrants are met. However, improvements to SR 395 may be necessary at the local level.

• Public Works

Introduction

Future demand for residential opportunities in Talon Ranch, as well as other residential communities in the western portion of the City of Victorville, call for a systematic plan for the provision of public services. The Public Works Component addresses these needs relative to the future development of the project site and illustrate the possible methods and mechanisms through which public services can be provided.

The infrastructure systems are designed to provide adequate service for the maximum level of planned development. In the case of sewer and other utilities where major offsite improvements are required to properly serve the ultimate development, interim facilities may be able to serve the limited phases of development.

Water Service Concept Plan

Domestic water will be supplied by Victor Valley Water District. The district has Master Planned the major facilities that would serve the site's future needs. The proposed concept is shown in Exhibit 14, Water Concept.

The District currently has adequate reservoir storage capacity of 5 mg with proposed future expansion of 12.5 MG through the construction of several new reservoir tanks.

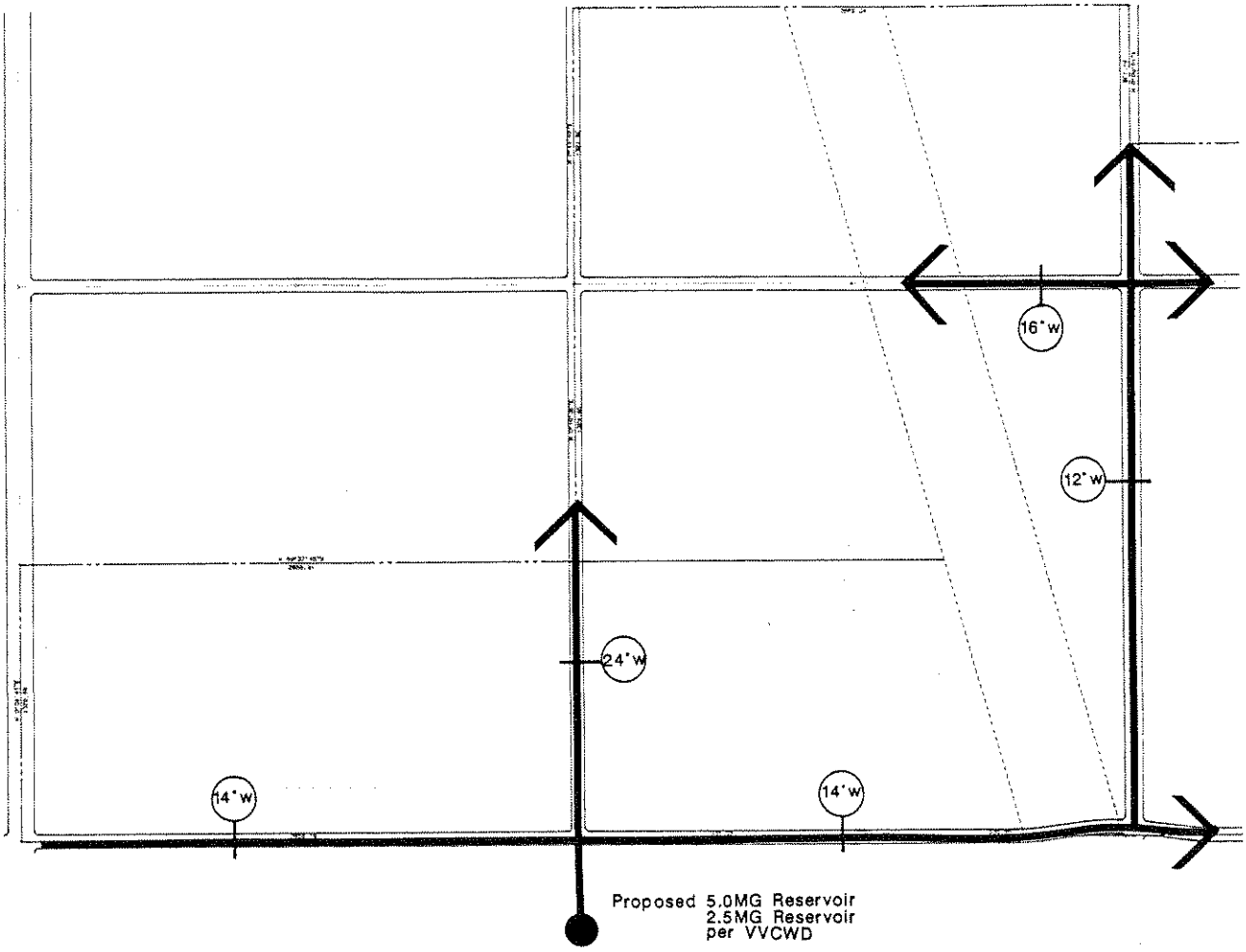
Exhibit 14 shows the proposed water transmission system extension due to the development of the project. In addition to the main lines shown, the developer shall install 8" minimum main lines internally throughout the development to serve the domestic water and fire flow requirements and needs of the residents.

Implementation

The cost of proposed water improvements shall be funded by the Developers and through reimbursement agreements entered into with the Victor County Valley Water District.

Sewer System Concept Plan

The Victor Valley Wastewater Reclamation Authority (VVWRA) will provide wastewater treatment service for Talon Ranch. It is a regional sewerage facility whose service area includes the Victorville Sanitary District. The VVWRA receives sewage from the Sanitary District's local collector system which connects to the VVWRA interceptor pipeline at two points along the Mojave River. The regional facility is located approximately eight miles north of Victorville at the ninth end of Shay Road adjacent to the Mojave River. The plant is currently operating at its allowable capacity of 4.8 million gallons per day (MGD). A 3.5 MGD expansion will be completed soon, however, this expansion is projected to



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WATER CONCEPT PLAN

WATER PIPE DIAMETER

MASTER PLANNED MAIN

be at capacity in approximately five years based on the current rate of growth in Victor Valley. Currently, the VVWRA Master Plan is being updated.

The onsite gravity sewer system will consist of 8-inch and larger main lines constructed per City of Victorville Standards. The project lies adjacent to the service area of the westerly leg of the Turner trunk sewer as shown on the Sewer Study prepared by C G Engineering dated January 1989. The Developer has made application before the City Council to be included within that study boundary.

Exhibit 15 shows a conceptual alignment of proposed facilities. Actual alignments and sizing of main lines will be determined at the design stage of the incremental phases of development. Since no sewer system exists at the discharge point at Topaz Road and Dos Palmas Road, offsite connection will be required approximately one mile easterly in Amethyst Road.

Implementation

Exhibit 16 provides an offsite backbone system for the project area. The offsite improvements between Mojave Drive and the connection point near Dos Palmas Road and Amethyst Road are to be undertaken in conjunction with the City to serve as Master Plan facilities. By this approach, the City will ensure control of the sizing, the areas to be served, and the final alignment to benefit the largest area on the western side of the City.

Financing of the offsite sewer facilities would be required through the various western area developers to provide the funding to complete the design and construction of the facilities. Currently the City has established a connection fee for this facility for the remaining portions. A reimbursement agreement based on pro-rata share can be executed between the various Developers and the City of Victorville. Upon new developments or other user connecting and utilizing capacity in the trunk line, fees would be levied by the City upon these users. The costs for financing their proportionate share of the improvements would be returned to the Developers.

The following conditions of approval are recommended to be adopted for subdivision maps which establish individual lots for construction of buildings. These conditions may be waived by the City on a case-by-case basis.

1. Prior to recording of the final subdivision map, the City Engineer shall certify that financial arrangements and agreements necessary for sewer services for this subdivision have been entered into by the City of Victorville.

2. No occupancy permits for any dwelling unit, except for model homes, shall be issued until sewage collection and conveyance facilities adequate for the subdivision are determined to be completed and operational by the City of Victorville. Within two years following the construction of a model home or the conveyance of such model home from the builder to an occupant, whichever shall occur first, said model home shall be connected to the community sewer service.

Drainage Concept Plan

The project site encompasses flat unimproved land which has a downward slope toward the northeast. The site is essentially void of organized storm drain runoff improvements. No major stream courses cross the plan area and the runoff from storms generally takes the form of overland street flow. There is some definition of drainage swales which exist due to the natural drainage tending to concentrate as it gathers to traverse the property.

The project incorporates drainage in several ways. The proposed street system, when constructed, will provide certain drainage controls to intercept and direct the street flow runoffs from the proposed improved properties. The street pattern and open space design accommodates these drainage patterns.

Actual onsite drainage facilities will be determined at the design stage of the incremental phases of development.

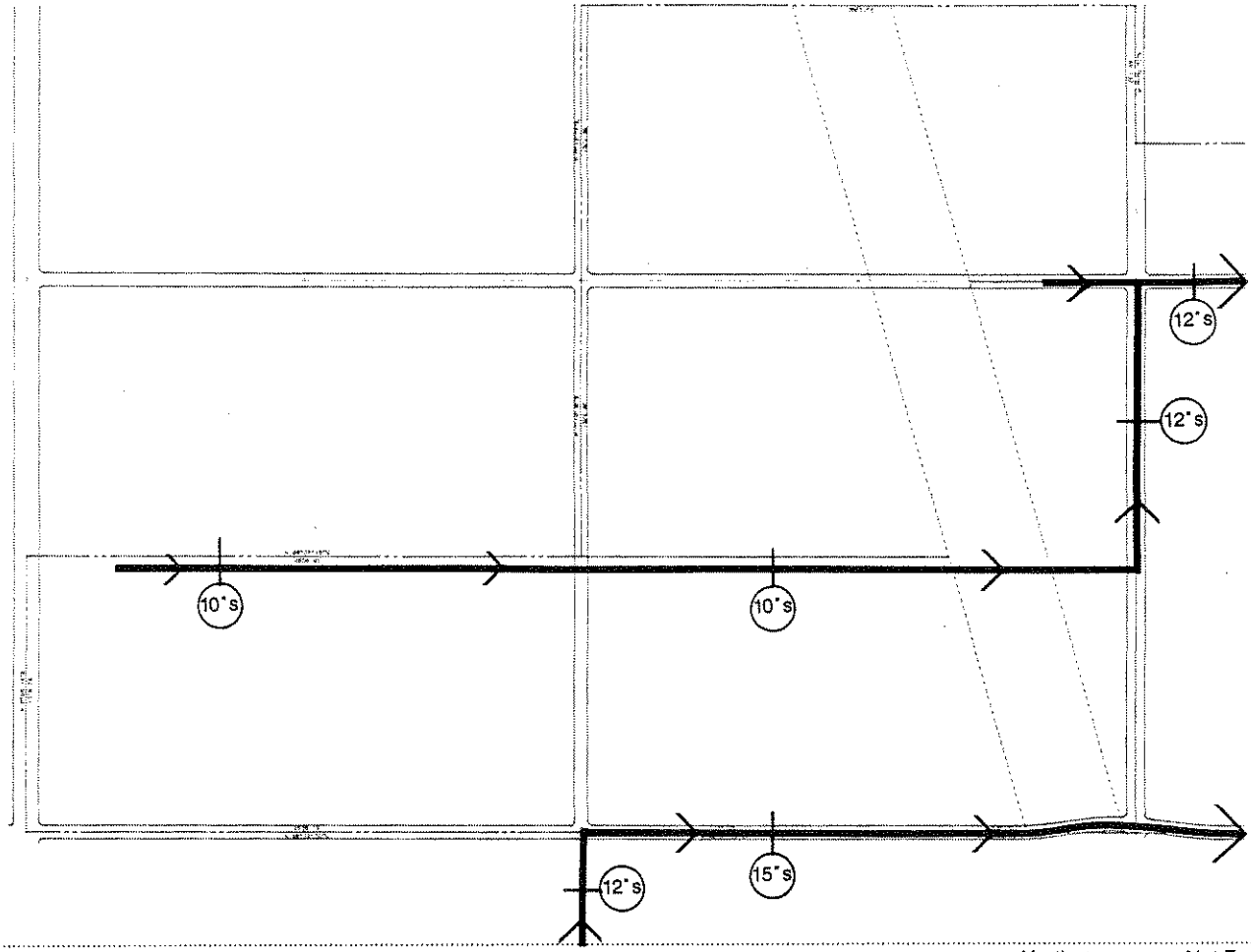
Offsite drainage conveyance will be accomplished in a manner acceptable to the City of Victorville, Public Works Department.

Implementation

Construction of the drainage improvements as shown in Exhibit 17 is necessary for the development of the project. The drainage improvements and the in-tract improvements needed for each subdivision will be constructed on an incremental basis, provided that the increased runoff is not allowed to adversely affect downstream properties.

Other Utilities

The Talon Ranch project lies within the service areas of Southern California Edison Company (electricity), Southwest Gas Corporation (natural gas), Continental Telephone of California (telephone), High Desert Cable Vision and Total TV (television cable) and Victorville Disposal, Inc. (solid waste). This utility network can be expanded to meet future demands of the project. All future utility line additions are proposed to be placed underground.



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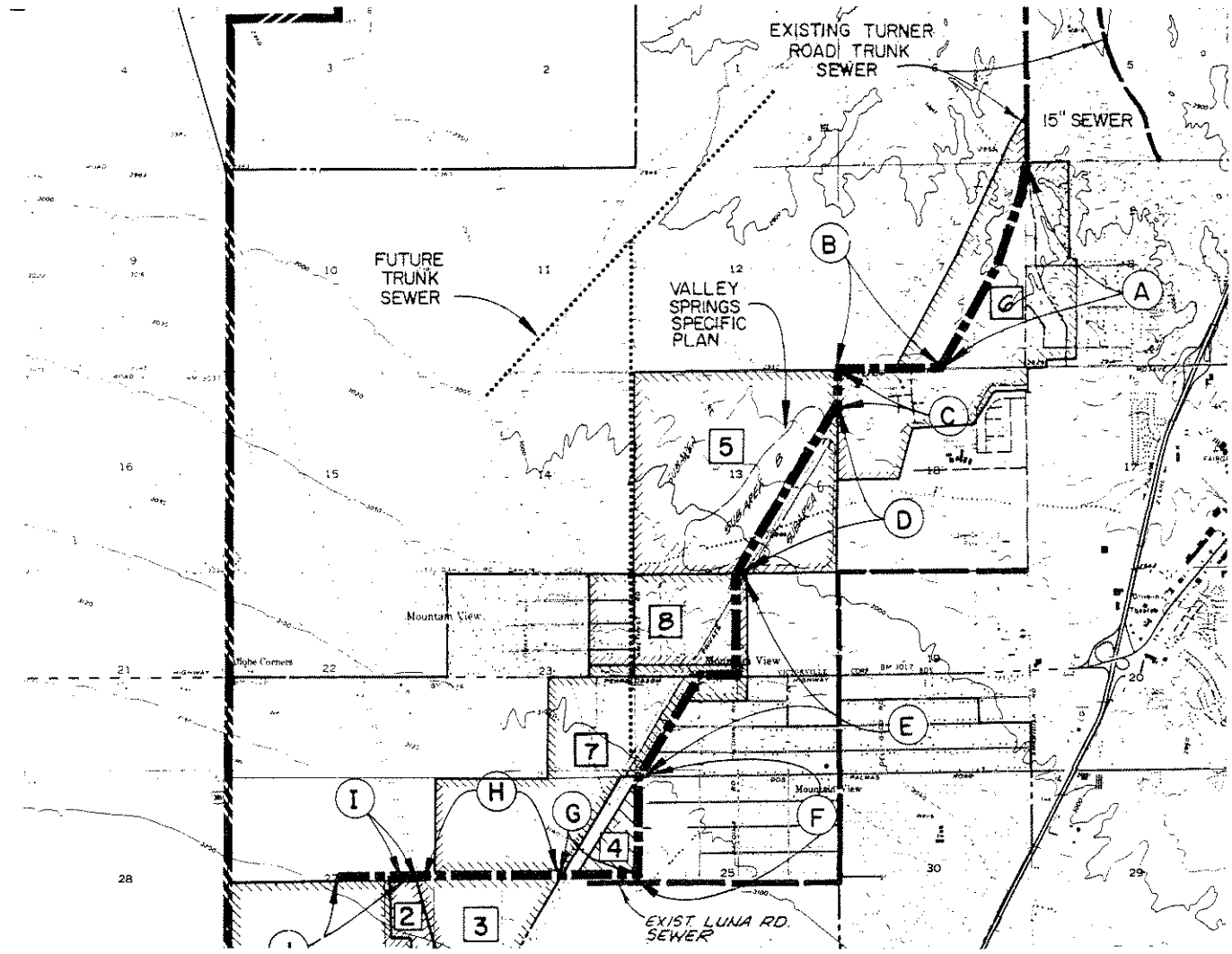
SEWER CONCEPT PLAN

PROPOSED TRUNK LINE

DIRECTION OF FLOW



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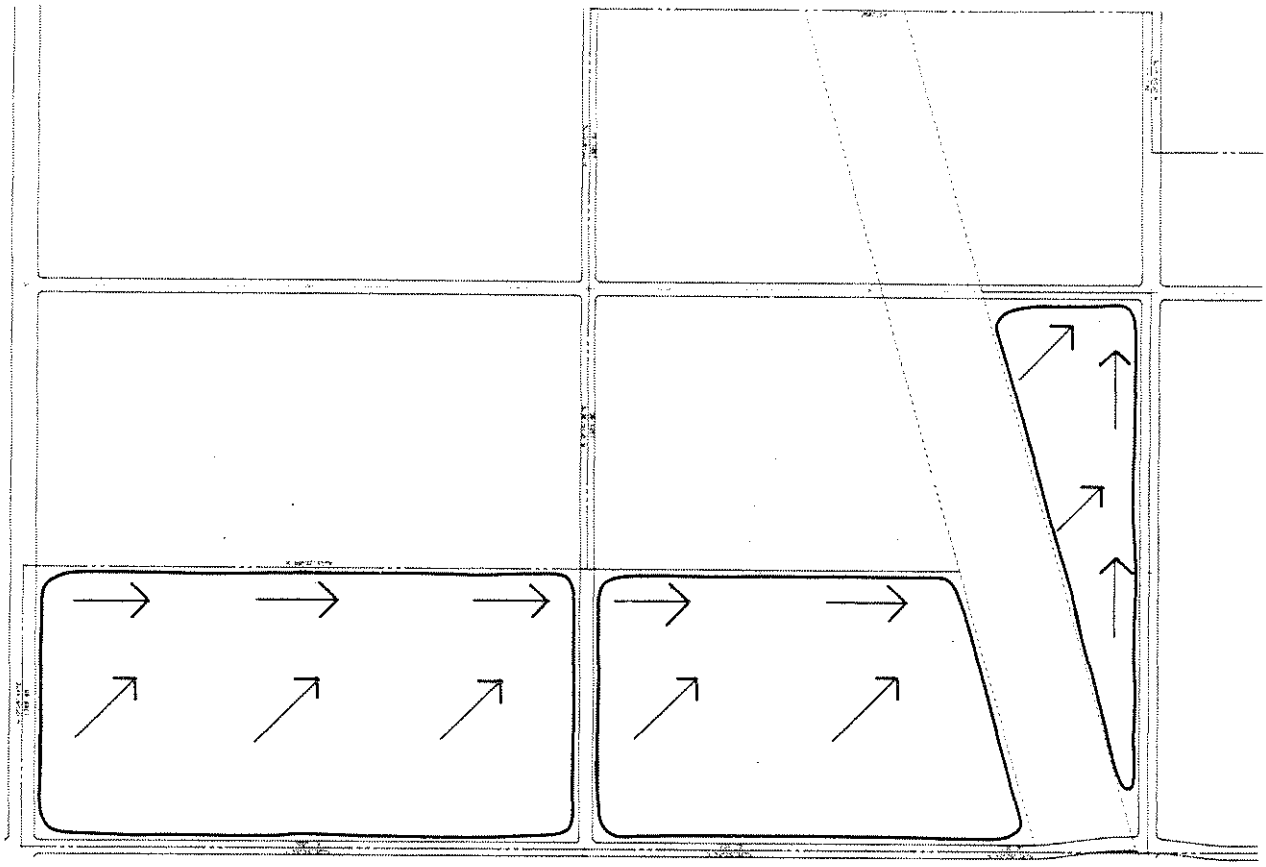
OFF-SITE SEWER PLAN



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DRAINAGE CONCEPT PLAN

SUB AREA
DRAINAGE BOUNDARY

DIRECTION OF FLOW

I M P L E M E N T A T I O N

• Density Transfer

Introduction

The Talon Ranch Specific Plan shall be implemented through Parcel, Tentative Tract and Final Maps pursuant to Title 17 of the Victorville Municipal Code titled "Subdivision" and Site Plan Review procedures pursuant to Chapter 18.71 of Title 18 of the Victorville Municipal Code entitled "Zoning". The review procedures and requirements associated with each are specified below.

The Parcel Map, Tentative Tract Map and Site Plan review procedures are used to accomplish the objective of providing a logical and timely sequence of community and governmental review and input. the purpose of the Parcel Map, Tentative Tract Map is to provide a method and procedure to analyze and evaluate the significant features within Talon Ranch, to assure compliance with the provisions contained within this Specific Plan. The purpose of the Site Plan Review is to establish the procedure of review of any attached, multi-family residential. The Site Plan Review is also intended to assess on an on-going basis any impacts of this development project on the surrounding community.

A. GENERAL PROVISIONS

1. TRANSFERS OF DWELLING UNITS/RESIDENTIAL OVERLAY

Transfers of dwelling units between parcels and the residential overlay areas within Talon Ranch shall be permitted, and shall be subject to review and approval by the Planning Commission if they exceed the overall specific maximum density range. The following findings shall be made in administering such transfers and residential overlay:

a. The total number of dwelling units within Talon Ranch does not exceed 577.

b. The proposal is consistent with the criteria specified in this Specific Plan.

c. There are no material impacts to the Talon Ranch circulation system of a nature which would necessitate amendments to the roadway cross sections.

d. There are no material impacts to surrounding planning areas, beyond those previously identified as part of this Specific Plan.

e. The transfer and/or residential overlay in question complies with all other provisions of this Specific Plan, except as noted above, and the

resultant densities are consistent with the overall character of development envisioned as part of this Specific Plan.

• Application Process

B. LAND DIVISION REVIEW PROCEDURES

The Talon Ranch Specific Plan shall be implemented through the Parcel Map, the Tentative Tract Map, and Site Plan Review process as noted herein.

1. PARCEL MAP

A Parcel Map is intended for parcelization and financing purposes. It addresses only large parcels and is intended to facilitate the construction of the model home complexes. Conditions of approval for this Specific Plan, or any other plan or program, may not apply to this map. The Parcel Map submittal shall meet all requirements stipulated by the Subdivision Map Act and Title 17 of the Victorville Municipal Code titled "Subdivision".

2. TENTATIVE TRACT MAP

A Tentative Tract Map, as applicable, shall be filed for all projects within Talon Ranch, subject to the provisions as stipulated in Chapters 17.04 through 17.108 et seq. of the City of Victorville Municipal Code Subdivision Ordinance. After map approval, the final map may be recorded and building permits may be issued. This process may include the parcelization of large tracts or lots for future use as residential development or cluster residential development site. Submittal requirements shall be as specified in the Victorville Municipal Codes.

C. PARCEL/TENTATIVE TRACT MAP REVIEW REQUIREMENTS

1. GENERAL PROVISIONS

Parcel and Tentative Tract Maps, and their review shall comply with the review requirements established in Title 17 of the Victorville Municipal Code titled "Subdivision". It is intended that Preliminary Plans include plans, programs, and other documentation and information per Chapter 17.61 of the Victorville Municipal Code titled "Subdivision" necessary to implement the provisions of this Specific Plan. Such information may be beyond the typical requirements for submittal of a Tentative Tract Map, as specified in Chapter 17.20 of the City's Subdivision Code.

A Parcel Map or Large Lot Tentative Tract Map may be processed when it is solely intended to be used for parcelization and/or financial purposes, and is intended to facilitate model home complexes.

2. PARCEL/TENTATIVE TRACT MAP SUBMITTALS

A Parcel or Tentative Tract Map, as applicable, shall be filed for all projects within "Talon Ranch" subject to the provisions as stipulated in the Victorville Municipal Codes.

Project data may be submitted as a part of a Preliminary Plan review process per Chapter 17.16 of Title 17 of the Victorville Municipal Code titled "Subdivision". After map approval, the Final Map may be recorded and building permits may be issued.

3. PARCEL/TENTATIVE TRACT MAP REVIEW PROCEDURE

The Parcel/Tentative Tract Map review process involves two steps: the pre-application conference and Tentative Tract Map submission review and approval.

a. Pre-application Conference

This is intended to provide the Planning Department with knowledge about the developer's intent and to provide the developer an understanding of what is required to develop under the Talon Ranch Specific Plan. There are no particular requirements for submission of materials and plans by a developer at a pre-application conference. However, the more information the developer has, the more response he may get from the conference. Staff shall explain all relevant City Ordinances and Codes which relate to the Specific Plan.

Another function of the pre-application conference is to determine levels of information necessary to implement satisfactorily all provisions of this Specific Plan. Further, submittal and review schedules, meeting statutory, staff and workload requirements, shall also be established as part of the pre-application conference.

The Director of Planning may choose to form a pre-application conference team which routinely conducts this function. This team may include members of the planning staff, and others from related departments such as engineering, public works, traffic, and police and fire, and the City Manager's office.

b. Parcel/Tentative Tract Map Submission

All Parcel/Tentative Tract Map review requirements contained in City of Victorville Municipal Code Chapter 17.04 through 17.108, Subdivisions, shall apply upon formal submittal of a Parcel/Tentative Tract Map.

A Development Plan may be required as part of the Tentative Tract approval process and as contained in Chapter 17.23 of the City of Victorville Municipal Code titled "Subdivision".

D. SITE PLAN REVIEW REQUIREMENTS

1. GENERAL PROVISIONS

The purpose of the Site Plan Review process is to provide for review of detailed final plans for apartments, town homes, condominiums, and non-residential development within the Talon Ranch Specific Plan Area. This process assures that projects will be planned, established, and maintained in a manner that will be compatible with surrounding uses. It is further intended to assure compliance with all provisions of this Specific Plan. No development or construction, other than minor repairs which do not alter the physical or architectural characteristics of a structure shall be undertaken unless a site plan and related documents have been submitted to and approved by the City of Victorville in accordance with its established review procedures.

2. SITE PLAN SUBMITTALS

Project data may be submitted in conjunction within a Site Plan application. The exact format, content and order of project data shall be determined in consultation with the City of Victorville prior to submittal and as outlined within the Victorville Municipal Codes.

3. SITE PLAN REVIEW PROCEDURES

All Site Plans shall be submitted, reviewed and approved pursuant to Chapter 18.71 of Title 18 of the Victorville Municipal Code entitled "Site Plan".

The Site Plan Review process involves two steps: the pre-application conference, and Site Plan submission for staff review. These are described further below.

a. Pre-application Conference

Those procedures specified in Section C-3-a, herein, shall apply.

b. Site Plan Submission for Staff Review

Those procedures as established by the City for the review of site plans shall apply (Chapter 18.71 Zoning).

E. ENFORCEMENT

Enforcement of these provisions shall be as stated below:

1. The Director of Planning shall have the duty to enforce the provisions of this Specific Plan.

2. Any use of a building or structure hereafter erected, built, maintained or used contrary to provisions of this Specific Plan, is deemed an illegal use.

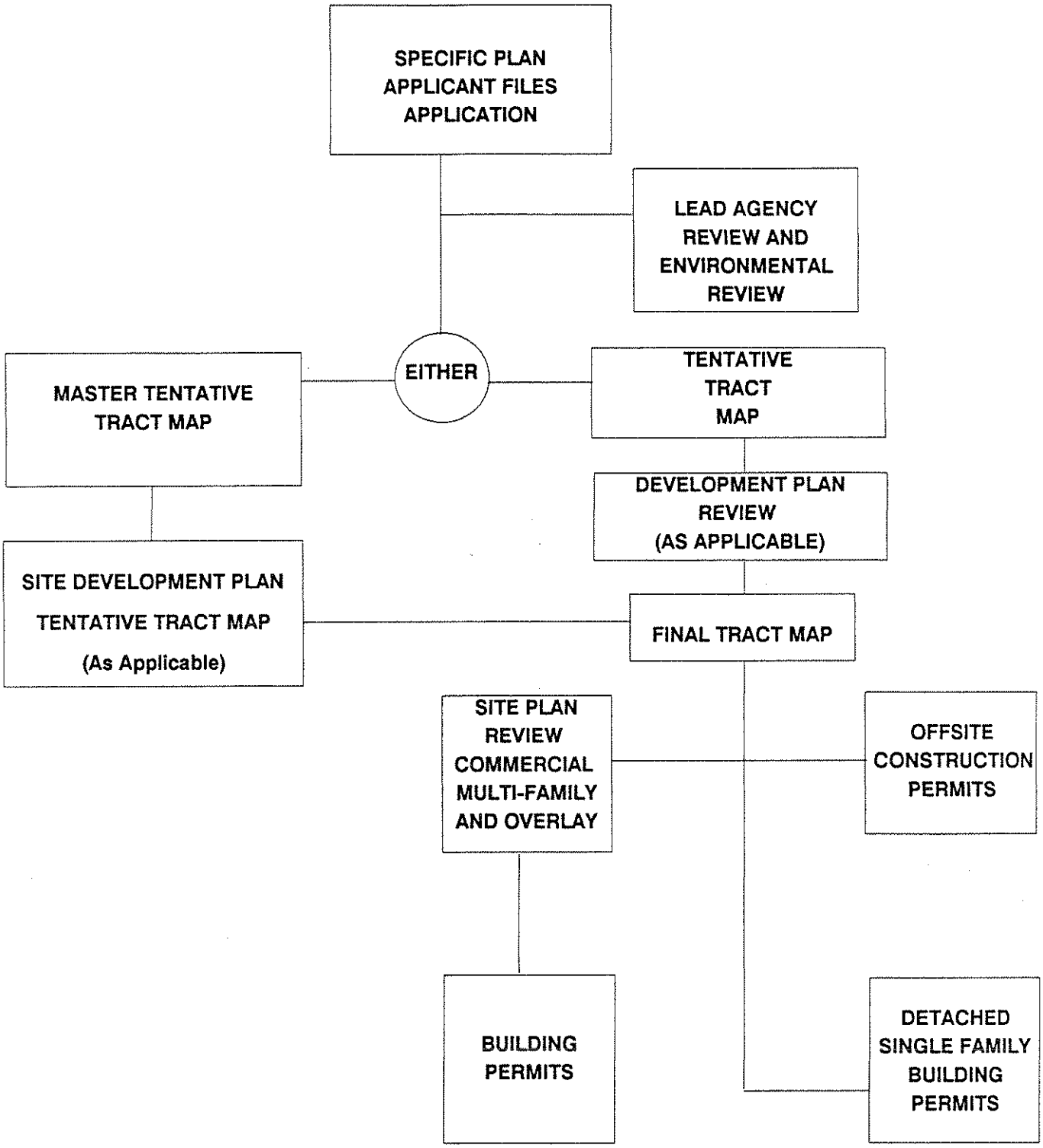
3. Any person violating any provisions of this Specific Plan is guilty of a misdemeanor.

4. The Director of Planning shall have the duty to interpret the provisions of this Specific Plan where noted. All such interpretations shall be in writing and be permanently maintained. Any person aggrieved by the Director of Planning's interpretation may appeal that interpretation to the Planning Commission and if necessary to the City Council.

5. Unless otherwise specified all development within the Talon Ranch Specific Plan shall comply with the City of Victorville Municipal Codes. Terms used shall have the same meaning as defined in the City of Victorville Municipal Codes unless otherwise defined herein.

6. Any details or issues not specifically covered by this Specific Plan shall be subject to the regulations of the City of Victorville Municipal Codes.

Table 5: Generalized Process Outline



Note: Illustrative Only. Throughout the process, reviews and approvals are by the Planning/Engineering staff, Planning Commission and/or City Council.
See Gov. Code 65920 et seq., Pub. Res. Code 21000 et seq. and Cal. Admin. Code 15000 et seq.

7. All construction within the boundaries of the Specific Plan shall comply with all provisions of the Uniform Building Code and the various mechanical, electrical, plumbing, fire and security codes adopted by the City of Victorville.

8. If any regulation, condition, program or portion thereof the Specific Plan is for any reason held invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision and the invalidity of such provision shall not affect the validity of the remaining provisions hereof.

H. COMMUNITY FACILITIES AND OPEN SPACE: CONSTRUCTION AND MAINTENANCE

Generally, the maintenance of all facilities designed for community wide public use such as parks, paseos, parkways and roadside planting belts will be funded through the creation of assessment districts and/or other methods. Facilities that are within detached or attached residential projects that are intended for residents of that project may be maintained by a homeowners association. Land belonging to other private, public and quasi-public agencies will be maintained by the owners.

The areas identified in Exhibit 10a., and discussed within the Specific Plan which deal with trails and paseo systems, shall be irrevocably offered for dedication to the City of Victorville prior to the recordation of any parcel or final map dividing land contained within the Talon Ranch Specific Plan.

• Municipal Finance Mechanisms

The following presents a summary of funding sources and mechanisms available for implementing the capital improvements proposed in the Talon Ranch Specific Plan.

The Talon Ranch Specific Plan may be implemented through a combination of public and private actions and investments. Both the public and/or private sectors may provide the infrastructure and other capital improvements of the plan. These include backbone roads, water, sewer and storm drainage improvements, public street lighting, special intersections, special streetscapes, open space, and maintenance.

A variety of funding sources are available for the implementation of the improvements proposed in the Talon Ranch Specific Plan. These improvements fall into three main categories:

- City of Victorville Capital Improvements Program
- Reimbursement Districts
- Assessment Districts

Each of these funding sources is briefly described below and is presented in greater detail in the Appendix.

City of Victorville Capital Improvements Program - The City of Victorville has a capital budget composed of funds from a variety of sources. All capital improvements must be approved as part of the City's annual budget. Some of the proposed capital improvements for Talon Ranch may be funded in this manner.

Reimbursement Districts - In the case of reimbursement districts, the developer enters into an agreement with the City whereby he will provide certain public

improvements, at his expense, in the initial stages of the project. As further development occurs, the City will assess the new projects which benefit from the original public improvements and reimburse the original developer.

Assessment Districts - In the case of an assessment district, liens are taken out against the properties upon which capital improvements are proposed. The bonds are held against these properties. Funds from the bonds are used to construct the capital improvements. As development occurs, the developers are assessed to repay the debt on the bonds. There are three specific types of assessment districts. These are:

- The Improvement Act of 1911
- The Improvement Bond Act of 1913
- The Municipal Improvement Act of 1915
- Mello-Roos Community Facilities Act of 1982
- The 1972 Landscaping and Lighting Act

The 1911, 1913, and 1915 Acts operate similarly to the general description of assessment districts above.

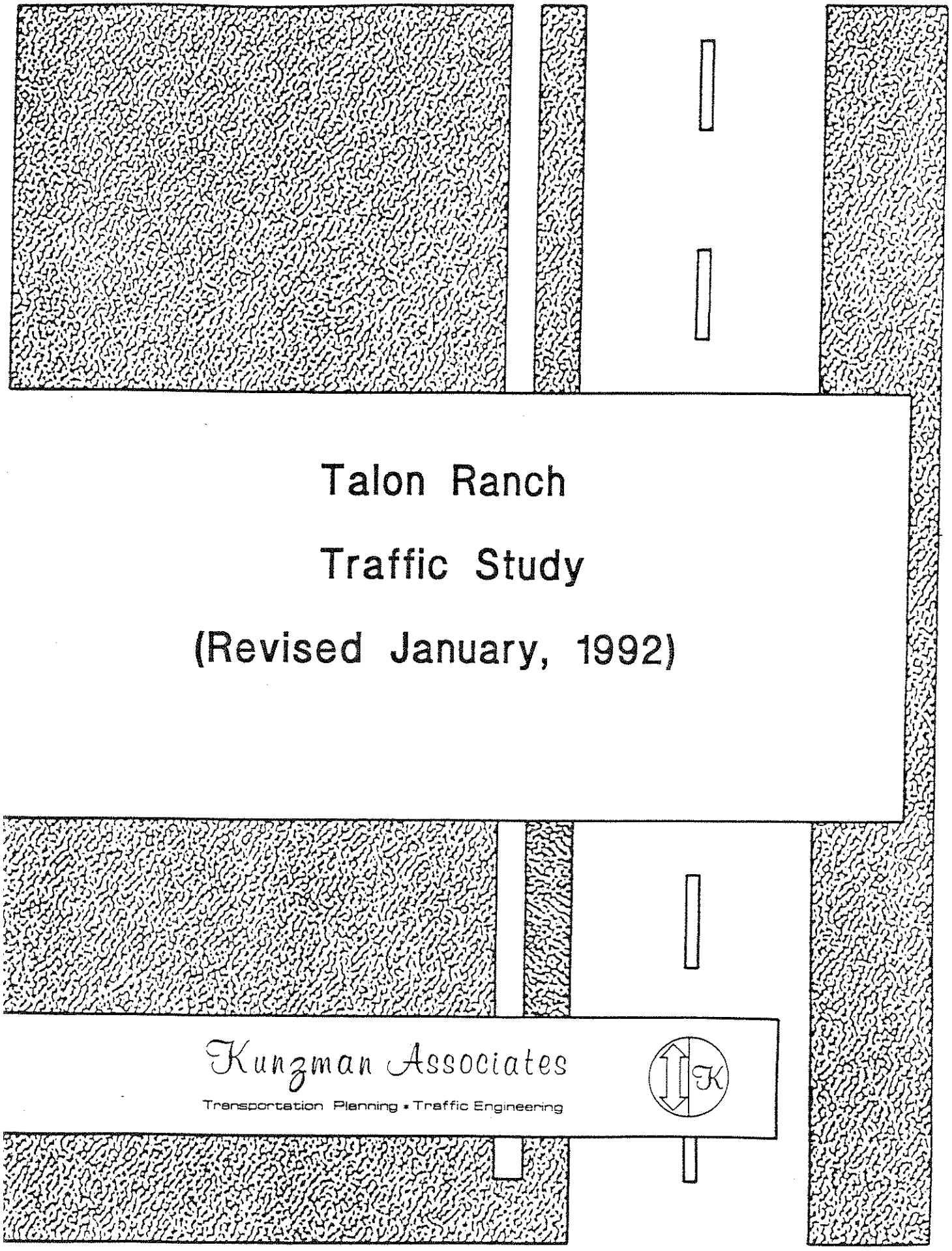
The Mello-Roos provides for the establishment of a Community Facilities District to provide both public services and public capital facilities. Special taxes are levied against the area where the services and facilities are being provided.

The Landscaping and Lighting Act provides for the construction and planting of landscaping, lighting systems and materials, as well as the maintenance and operations costs for these elements within a specific district. Special assessments have been levied against the area where these improvements and maintenance occur.

Conclusion

Upon approval of the Specific Plan by the Planning Commission and City Council, it is recommended that a feasibility study be initiated to establish a Talon Ranch Assessment District to fund selected improvements within the Specific Plan Area.

A P P E N D I X



Talon Ranch

Traffic Study

(Revised January, 1992)

Kunzman Associates

Transportation Planning • Traffic Engineering

Kunzman Associates
Transportation Planning * Traffic Engineering

January 31, 1992

Mr. Peter Zender
Ryder Companies
369 San Miguel Road, Suite 200
Newport Beach, CA 92660

Dear Mr. Zender:

We are pleased to present this revised traffic impact analysis of the proposed Talon Ranch development in the City of Victorville. This revision includes an update of existing conditions in the vicinity of the site as well as reflecting the current land use plan. We trust that the findings, which are listed in Section 1 and include the mitigation measures, will be of immediate as well as continuing value to you and the City of Victorville in evaluating the project's traffic impacts.

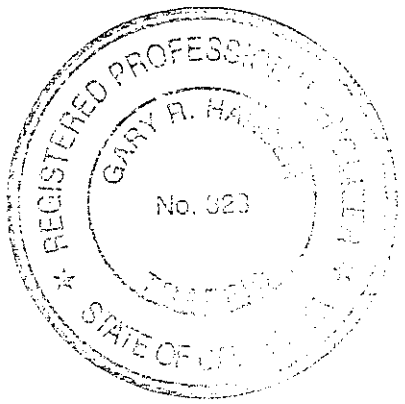
It has been a pleasure to serve your needs on this project. Should you have any questions, or if we can be of further assistance, please do not hesitate to call.

Sincerely,

KUNZMAN ASSOCIATES

Gary Hansen

Gary Hansen, P.E.
Expiration Date 3-31-93



#1540d

cc: Steve Long

4650 Barranca Parkway * Irvine, CA 92714 * FAX (714) 559-0260 * Telephone (714) 559-4231

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Talon Ranch

Traffic Study

This report contains the revised traffic impact analysis for the proposed Talon Ranch development in the City of Victorville. This revision is based on the current land use plan which shows 502 single family dwellings, 194 apartments, and a 9.71 acre neighborhood commercial facility. The completion of this project is now assumed to occur in 1997.

The traffic report contains documentation of existing traffic conditions, traffic generated by the project, distribution of the project traffic to roads in the vicinity of the site, an analysis of existing plus project conditions, and an analysis of future traffic conditions. Each of these topics is contained in a separate section of the report. The first section is "Findings", and subsequent sections expand upon the findings. In this way, information on any particular aspect of the study can be easily located by the reader.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

d. With the addition of the following city master planned streets (to be constructed with funds from the Development Impact Fee (DIF) program), the circulation system will be able to provide access to the site and accommodate project traffic volumes:

1. Construction and paving of Luna Road from Amethyst Road to U.S. 395. (Luna Road is not eligible for DIF funds).

2. Construction and paving of Topaz Road from Palmdale Road to Luna Road. (Only 2 lanes required).

e. With CalTrans and project improvements to adjacent arterial streets, intersections in the vicinity of the site are estimated to continue to operate at Level of Service A during the peak hours for existing plus project conditions.

f. The addition of project traffic to the existing volumes will have the following impacts:

1. Increase the need for a traffic signal at U.S. 395/Bear Valley Road (Note: existing volumes satisfy the signal warrants).

2. Increase the congestion on Palmdale Road near I-15. However, project traffic destined for commercial facilities along 7th Street or northbound on I-15 has the option of travelling north on Amargosa Road to Mojave Road to reach these destinations.

g. The cumulative traffic volumes in 1997 (i.e. existing plus project plus growth in existing plus Foxfire Ranch) will have the following impacts (these are in addition to the existing plus project impacts in item f):

1. Require the widening of U.S. 395 to four lanes.

2. Require the widening of Palmdale Road to six lanes between El Evado Road and I-15.

3. Require the widening of Bear Valley Road to six lanes between Amethyst Road and I-15.

(Note: All of these streets are regional roadways and improvements should be subject to funding from the DIF program).

Mitigation Measure

The following measure is recommended to mitigate the impact of the project on traffic circulation:

a. Construct streets identified in item d in Traffic Impacts section.

2. Project Description

This section discusses the project's location, the proposed development, and traffic characteristics of the proposed development.

Location

The Talon Ranch project includes two parcels between the future extensions of Dos Palmas Road and of Luna Road in the City of Victorville. Figure 1 shows the location of the project and existing roadways in the vicinity of the site.

Proposed Development

The Talon Ranch includes single family residential units, apartments, and neighborhood commercial land uses.

The following describes the proposed land uses from a traffic engineering viewpoint:

Single Family Detached Dwellings: The primary market for these units will be families with children. As a result, peak traffic volumes will occur during home-to-work and work-to-home trips. Child-related trips such as home-to-school or home-to-Little League are also a significant factor in the daily trip generation, but they have a smaller influence on peak hour volumes.

Apartments: These are residential developments with density of 18 to 20 dwellings per acre. In general, the traffic characteristics are the same as for single family dwellings, except that family size and trips generated are fewer.

Neighborhood Commercial: Commercial developments of this type are characterized by a large number of short duration trips throughout the day. Their typical opening times produce minor traffic volumes during the morning peak hour. During the evening peak hour, people driving home from work stop to shop, creating a minor peak in commercially generated traffic volumes.

The project area has been divided into three traffic zones to facilitate analysis. Table 1 lists the land uses in each zone and Figure 2 shows the zone boundaries.

Table 1

LAND USE BY TRAFFIC ZONE

Zone	Land Use	Quantity
1	Single Family Residential	163 DU
	Apartments	194 DU
	Neighborhood Commercial	9.71 AC
2	Single Family Residential	244 DU
3	Single Family Residential	95 DU

DU = dwelling unit
AC = acre

Figure 1
Project Location

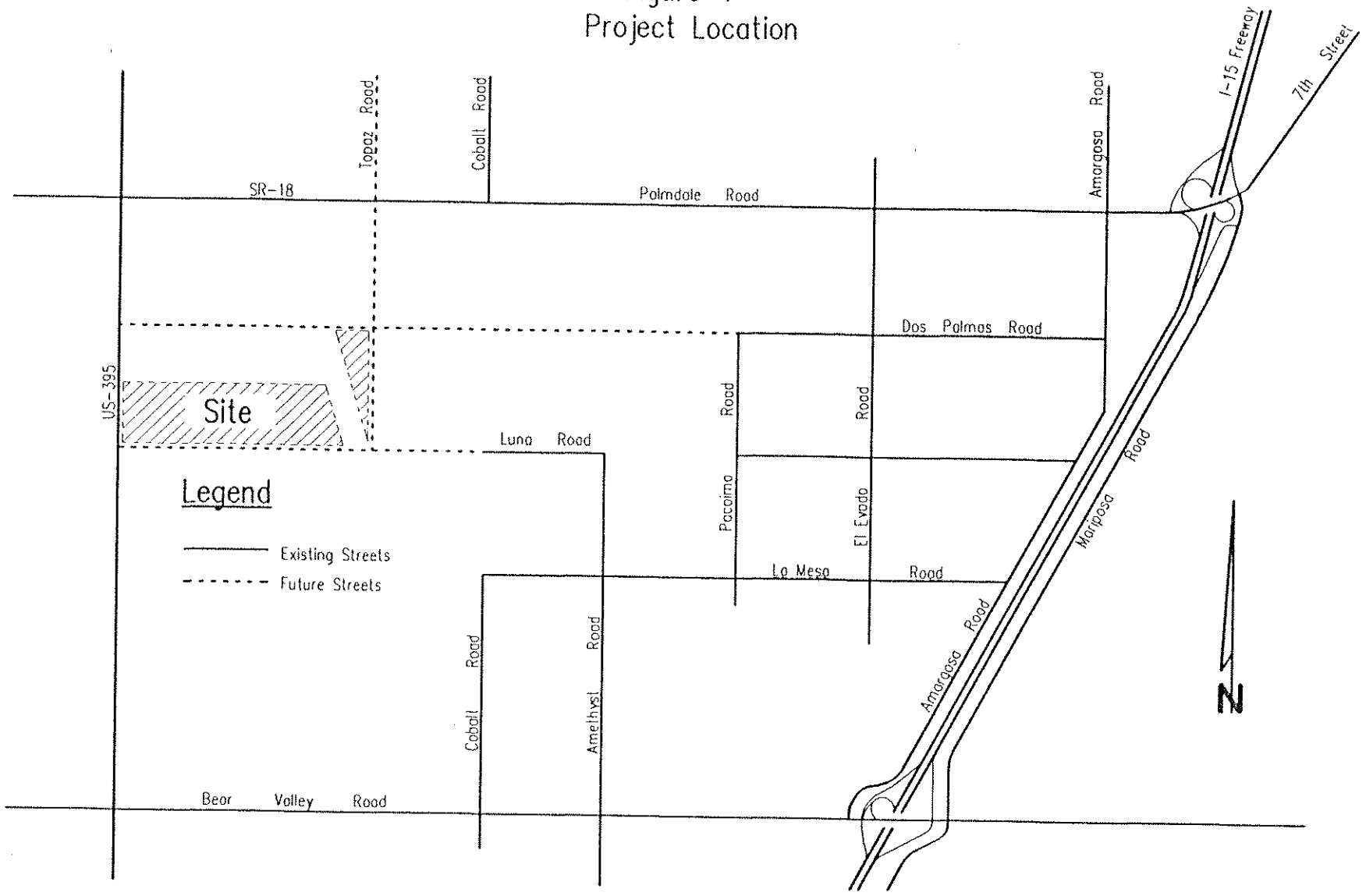

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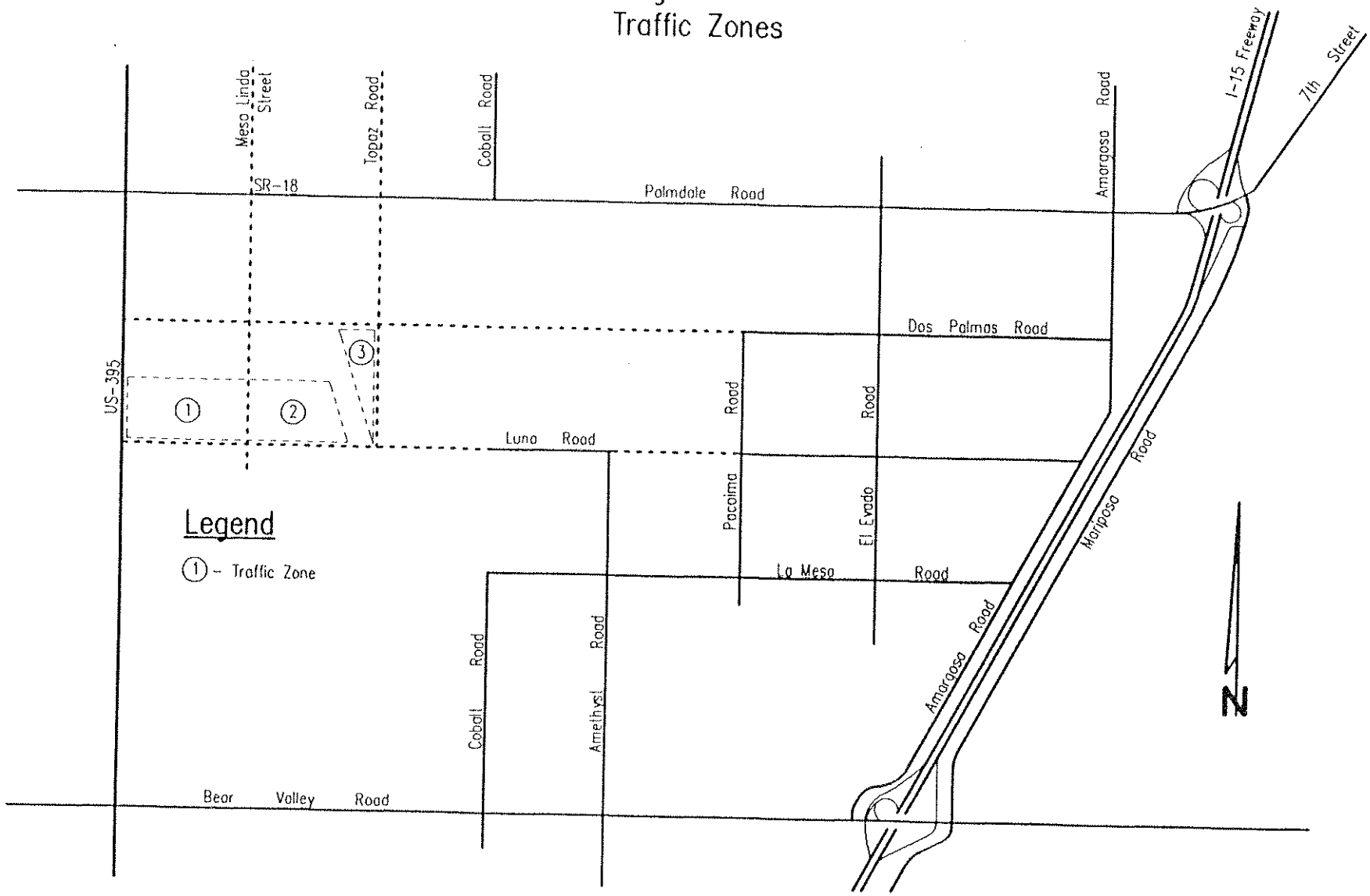
Figure 2
Traffic Zones



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3. Existing Traffic Conditions

The traffic conditions as they exist today are discussed below and illustrated in Figures 3 and 4.

Surrounding Street System

Existing roadways that will be utilized by the development include Palmdale Road, Amethyst Road, Luna Road, U.S. 395 and Bear Valley Road. In the vicinity of the project site, the following roadway conditions exist.

Palmdale Road: Palmdale Road (SR-18) extends westerly from I-15 and provides access to the cities of Palmdale and Lancaster. In the vicinity of the site, it is a two lane road which transitions to four lanes to the east of El Evado Road. Palmdale Road is designated as a future super arterial (6 lanes divided) on the City's Circulation Element.

Amethyst Road: Amethyst Road is designated as a future four lane street and is intended to be the major north-south arterial in the vicinity of the site. Varying street sections on Amethyst Road currently exist south of Luna Road.

Luna Road: Luna Road currently exists as a paved two lane street easterly from Pacoima Road to Amargosa Road. It is designated as a future two lane collector street in the vicinity of the site.

U.S. 395: This state highway is a two lane roadway providing access to the I-15 Freeway to the south and to the City of Adelanto and the Owens Valley to the north. It is designated as a future super arterial on the circulation element.

Bear Valley Road: Bear Valley Road is designated as a future super arterial and accommodates traffic generated in Victorville and in Hesperia. Bear Valley Road has a diamond type interchange with the I-15 Freeway.

Existing Travel Lanes and Intersection Controls

Figure 3 identifies the existing conditions for roadways near the site. The number of through lanes and the existing intersection controls are shown.

Daily Traffic Volumes

Figure 4 depicts the average daily two-way traffic volumes. which were obtained from the City of Victorville, from the County of San Bernardino, from CalTrans 1990 Traffic Volumes on State Highways and factored from peak hour counts taken by Kunzman Associates.

Existing Daily Volume to Capacity Ratios

Roadway capacity is generally defined as the number of vehicles which can be reasonably expected to pass over a given section of road in a given time period. Congestion, high accident rates, the quality of traffic flow (Level of Service), and environmental acceptability all come into play in defining a particular roadway's effective capacity. It is possible to identify maximum desirable volumes for typical roadway types based on the number of roadway travel lanes. These daily volumes reflect estimates of the amount of daily traffic which will result in peak hour traffic volumes equal to the maximum desirable capacity of each roadway type. Two lane undivided roadways are estimated to have a maximum (i.e. Level of Service E) capacity of 12,500 vehicles per day, two lane divided roadways have a maximum capacity of 17,500 vehicles per hour, four lane undivided roadways are estimated to have a maximum capacity of 30,000 vehicles per day, four lane divided roadways are estimated to have a maximum capacity of 37,500 vehicles per day, and six lane divided roadways are estimated to have a maximum capacity of 56,000 vehicles per day. Six lane freeways are estimated to have a maximum daily capacity of 138,000 vehicles.

By dividing the existing daily volumes by the daily capacities listed above, volume to capacity ratios have been calculated and are shown in Figure 4. Table 2 equates volume to capacity ratio with Level of Service. The ratios on Figure 4 show that existing roadways and freeways in the vicinity of the site are operating at Level of Service C or better except U.S. 395 which is operating at Level of Service E north of Bear Valley Road and at Level of Service D south of Bear Valley Road.

Existing Intersection Capacity Utilization

The technique used to assess intersection operation is Intersection Capacity Utilization (ICU). To calculate an ICU the volume of traffic using the intersection is compared to the capacity of the intersection. ICU is usually expressed as a percent which represents that portion of the hour required to provide sufficient capacity to accommodate intersection traffic if all approaches operate at capacity. The ICU's for existing intersections in the vicinity of the project are shown in Table 3 and are based upon manual peak hour turning movement counts taken in June, 1991. Intersections in the vicinity of the site are currently operating at Level of Service A during the peak hours. An explanation of ICU and Level of Service is included in Appendix B.

Comparison of daily volume to capacity ratios and corresponding Level of Service, and peak hour Intersection Capacity Utilization and corresponding Level of Service reveals a difference. The differences between daily link volume to capacity ratios and peak hour Intersection Capacity Utilization is particularly pronounced when cross traffic is light. Daily volume to capacity ratios assume that all cross streets require 50 percent of the time to satisfy their demand, and assume that the subject street has 50 percent of the time available to it. The daily volume to capacity ratios are a generalized indicator while peak hour Intersection Capacity Utilization actually represents what can be expected in the peak hour at intersections. Of the two indicators, the peak hour Intersection Capacity Utilization and corresponding Level of Service is the <u>better</u> measure of roadway performance.

The ICU is even more important as an indication of roadway performance on a street such as U.S. 395 in the vicinity of the site. This is because there are currently no intersections or vehicle conflicts on U.S. 395 between Palmdale Road and Bear Valley Road.

City of Victorville Circulation Element

Figure 5 exhibits the current street designations in the City of Victorville Circulation Element. This Figure shows the nature and extent of arterial highways which are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan and also coordinates future arterials between local jurisdictions.

Figure 5 shows several future streets which will have an impact on circulation in the vicinity of the site. Luna Road is future east-west two lane undivided street and Topaz Road is a future north-south four lane undivided street.

Traffic Signal Warrants

Traffic signal warrants adopted by CalTrans are based upon the eight highest hour volumes in a day. It is assumed by CalTrans that the eighth highest hour is 62.5 percent of the peak hour, and the peak hour is generally 10 percent of the daily traffic. Thus, the signal warrants can also be expressed in terms of the daily traffic volumes shown on Table 4. Rural traffic volume warrants are utilized when the 85th percentile speed of the major street traffic exceeds 40 miles per hour.

In order to satisfy the signal volume warrants, the volumes of both the major and minor street must meet or exceed those listed in Table 4. Determining the major street daily signal warrant volume involves calculating the number of daily vehicles approaching the intersection on both major street legs; usually the daily approach volume is 50 percent of the street's daily two-way volume on each leg. Finding the minor street daily signal warrant volume involves calculating the number of daily vehicles approaching the intersection on only the highest volume leg; usually the daily approach volume is 50 percent of the street's two-way daily volume. If the minor street forms a tee intersection with the major street, then the minor street volume is the highest volume because there is no other volume.

The existing daily volumes on U.S. 395, on Palmdale Road and on Bear Valley Road shown on Figure 4 exceed the values on Table 4 for both the Minimum Vehicular and Interruption of Continuous Traffic warrants (one approach lane on both streets - rural values).

Planned Improvements

CalTrans has plans for improvements on Palmdale Road and at the intersection of U.S. 395/Palmdale Road. By 1994, it is expected that:

1. Palmdale Road will be widened to four lanes easterly from U.S. 395 to Caheunga Road (the point at which Palmdale Road is currently four lanes).

2. At U.S. 395/Palmdale Road, there will be a traffic signal and the intersection will be widened to provide two through and one left turn lane on each approach.

Table 2

LEVEL OF SERVICE DESCRIPTION

Level of Service	Description	Volume to Capacity Ratio
A	Level of Service A occurs when progression is extremely favorable and vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0.60 and below
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	0.61 to 0.70
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	0.71 to 0.80
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.81 to 0.90
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	0.91 to 1.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	1.01 and up

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

Table 3

EXISTING INTERSECTION CAPACITY UTILIZATION
AND LANE GEOMETRICS

Intersection	Intersection Approach Lanes (1)												Peak Hour ICU-LOS (2)	
	Northbound			Southbound			Eastbound			Westbound				
	T	R	L	T	R	L	T	R	L	T	R	L	AM	PM
U.S. 395 (NS) at														
Palmdale Road (EW)	1	0	0	2	0	0	1	0	0	1	0	0	56-A	51-A
Duncan Road/ Bear Valley Road (EW)	1	0	1	1	0	1	1	0	0	1	0	0	39-A	47-A

(1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

(2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

T = Through
R = Right
L = Left

Table 4

TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note 2)

URBAN ..... RURAL	Minimum Requirements EADT	
1. Minimum Vehicular	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor-street approach (one direction only)
Satisfied _____ Not Satisfied _____		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 ..... 1	8,000 / 5,600	2,400 / 1,680
2 or more 1	9,600 / 6,720	2,400 / 1,680
2 or more ..... 2 or more	9,600 / 6,720	3,200 / 2,240
1 ..... 2 or more	8,000 / 5,600	3,200 / 2,240
2. Interruption of Continuous Traffic	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor-street approach (one direction only)
Satisfied _____ Not Satisfied _____		
Number of lanes for moving traffic on each approach		
Major Street / Minor Street	Urban / Rural	Urban / Rural
1 ..... 1	12,000 / 8,400	1,200 / 850
2 or more 1	14,400 / 10,080	1,200 / 850
2 or more ..... 2 or more	14,400 / 10,080	1,600 / 1,120
1 ..... 2 or more	12,000 / 8,400	1,600 / 1,120
3. Combination		
Satisfied _____ Not Satisfied _____	2 Warrants	2 Warrants
No one warrant satisfied but following warrants fulfilled		
80% or more ..... _____ 1 _____ 2		

NOTE:

1. Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.
2. To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.

Source: CalTrans, Traffic Manual, page 9-8

Figure 3
Existing Conditions

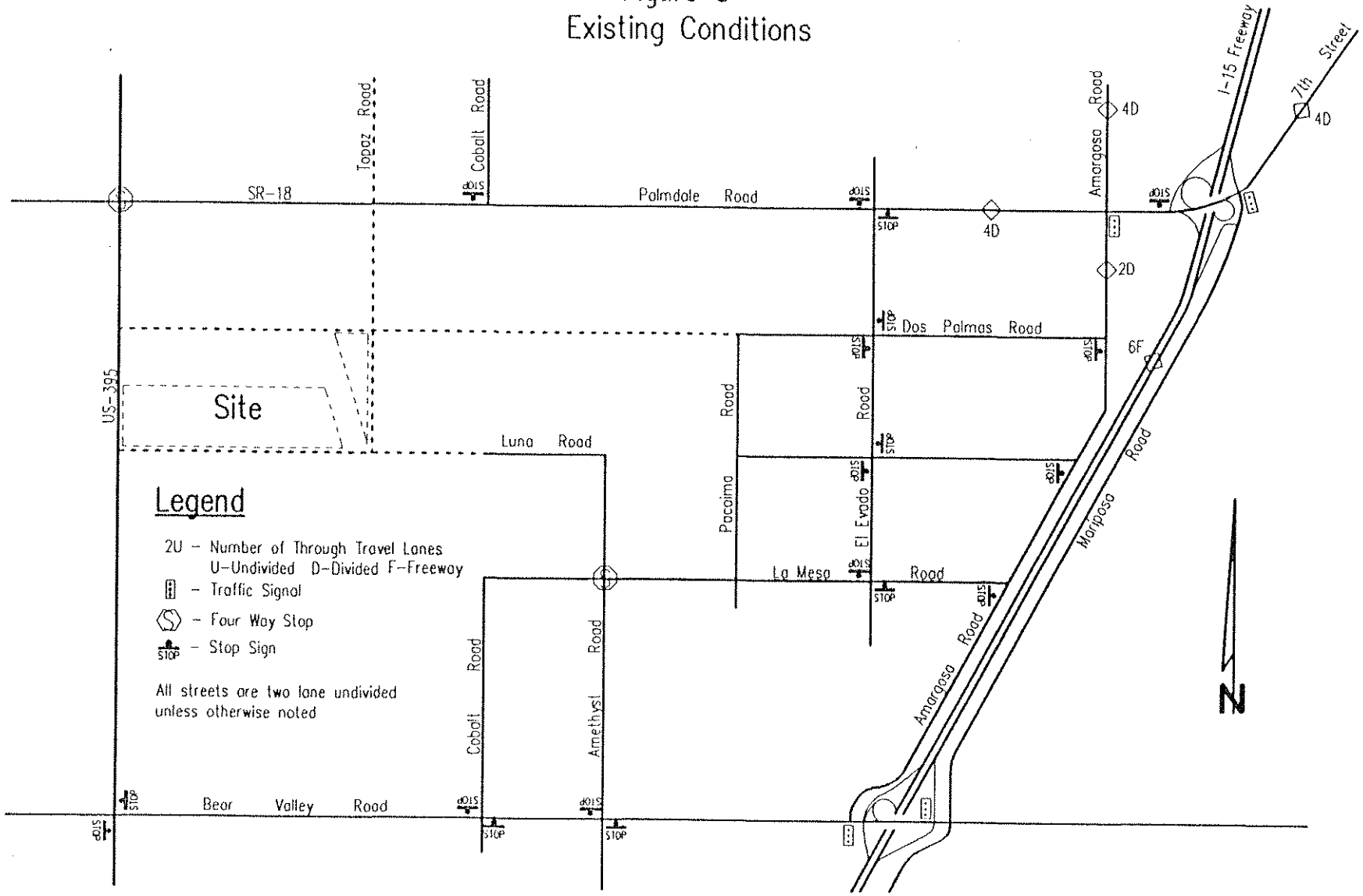

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Figure 4
Existing Daily Volumes and Volume to Capacity Ratios

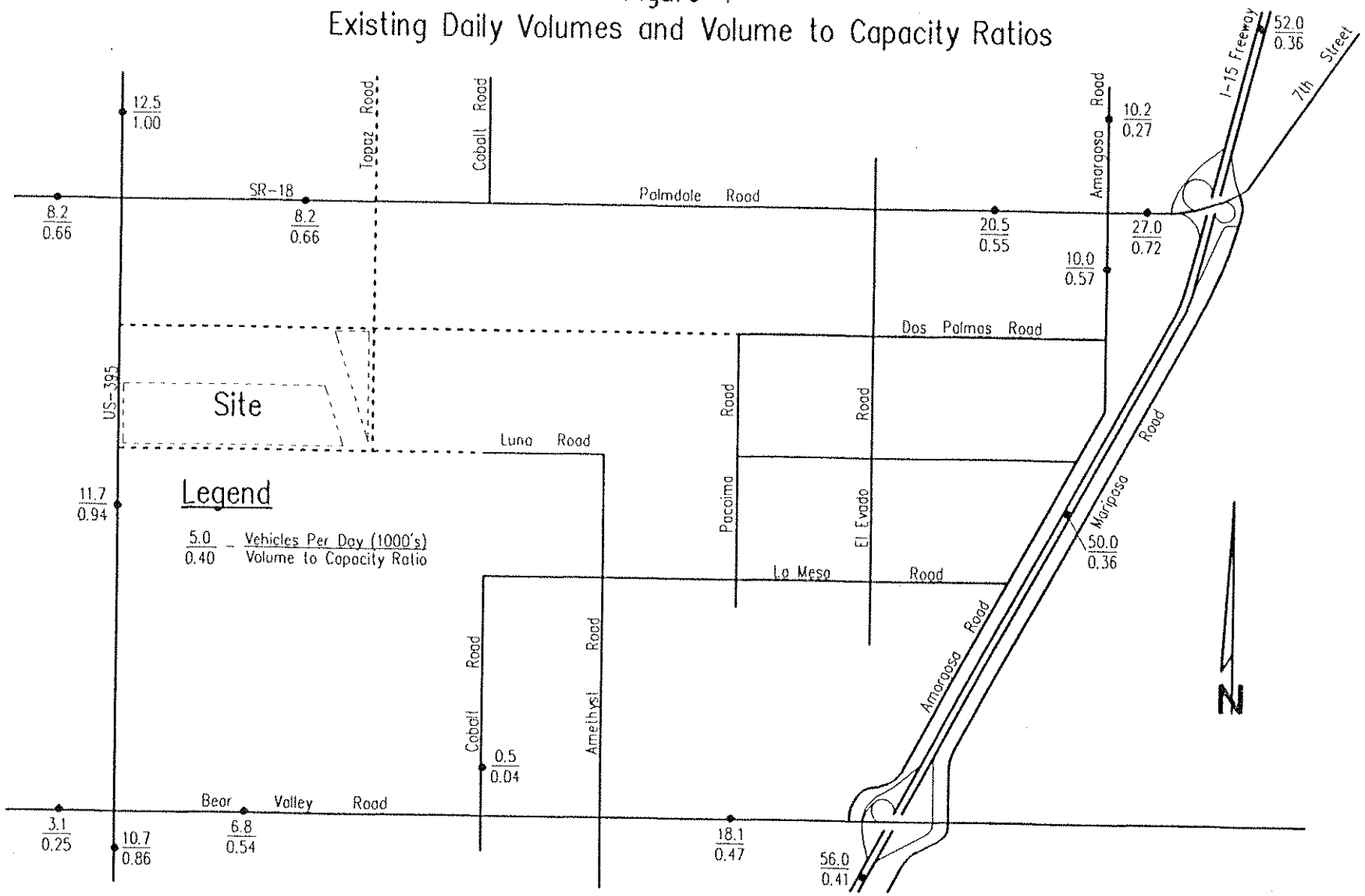

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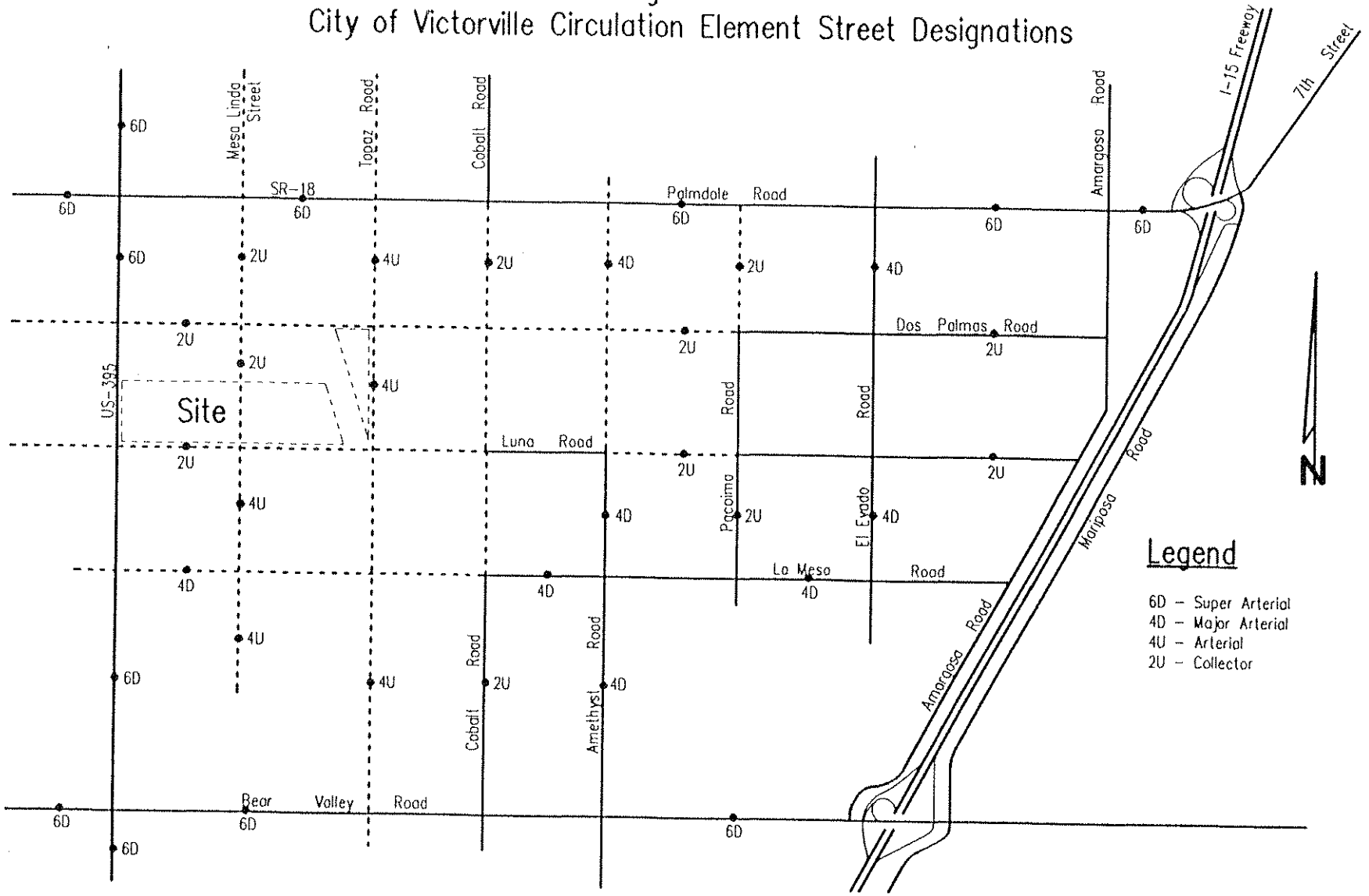
Figure 5
City of Victorville Circulation Element Street Designations



Kunzman Associates

4. Project Traffic

To estimate project-related traffic volumes at various points on the street network, a three step process is utilized. First, the traffic which will be generated by the proposed development is determined. Secondly, the traffic volumes are geographically distributed to major attractions of trips, such as employment centers, commercial centers, recreational areas or residential areas. Finally, the trips are assigned to specific roadways and the project-related traffic volumes are determined on a route-by-route basis.

Traffic Generation

The traffic generated by the project is determined by multiplying the appropriate trip generation rate by the quantity of land use. Trip generation rates are expressed in terms of trip ends per person, trip ends per employee, trip ends per acre, trip ends per dwelling, or trip ends per thousand square feet of floor space. For instance, if a particular land use generates six outbound trips per acre in the morning peak hour, then six vehicles are expected to leave the site in the morning peak hour for each acre of development.

Significant research efforts have been made by CalTrans, the Institute of Transportation Engineers (ITE), Kunzman Associates, and others to establish the correlation between trips and land use. From this body of information, trip generation rates can be estimated with reasonable accuracy for various land uses. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Table 5 lists the trip generation rates developed by ITE which were used to estimate the daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic volumes for the proposed land uses. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined. Table 6 shows the estimated total peak hour and daily traffic volumes for each zone.

Traffic volumes shown in Table 6 include the total trips generated for each individual land use. However, as some of the residential trips generated within the project will also be making trips to the project commercial land use, a double counting of some trips occurs.

Home based trip profile studies have shown that approximately 24 percent of the total residential trip generation is travel to and from local shopping facilities. This study assumed that 25 percent of these trips (or 6 percent of the total residential trip generation) would be to the project's commercial land use and thus be double counted. These trips (approximately 400 per day) were reduced at the residential end.

Traffic engineering studies have been conducted which show that a significant percentage of the traffic entering and leaving a commercial center is generally recognized as being diverted from the passing traffic streams (i.e. passby trips) and therefore not considered as new traffic generated by the commercial center.

The percentage of passby trips is based on factors such as the size of the commercial center and the volume of traffic on adjacent arterial streets. The studies have shown that the passby trips usually vary between 25 and 60 percent of the total traffic generated by the commercial facility. This study is based on a conservative estimate of 25 percent of passby trips which were reduced on the commercial end.

Table 7 shows the adjusted total daily and peak hour trips for Talon Ranch.

Traffic Distribution and Assignment

Traffic distribution is the determination of the directional orientation of traffic. For this project, it is based on the geographical location of employment centers, commercial centers, recreational areas, and existing and future residential areas.

Traffic assignment is the determination of which specific route development traffic will use, once the generalized traffic distribution is determined. The basic factors affecting route selection are minimum time path and minimum distance path.

Figures 6a - 6c contain the directional distribution and assignment of the project traffic for zones 1 - 3.

Project Related Traffic Volumes

The project related daily traffic volumes are shown on Figure 7 and are based on the estimated project traffic on Table 7 and the distributions shown in Figures 6a - 6c.

Table 5

ITE TRIP GENERATION RATES

Land Use	Units*	Morning Peak Hour		Evening Peak Hour		Daily
		In	Out	In	Out	
Single Family Residential	DU	0.19	0.55	0.66	0.35	9.55
Apartment	DU	0.09	0.42	0.43	0.20	6.28
Commercial	AC	11.00	6.43	35.28	35.28	759.58

*DU = dwelling unit
AC = acre
Source: Institute of Transportation Engineers, Trip Generation, Fifth Edition, 1991, Land Use Categories 210, 220, and 820.

Note: ITE trip generation rates for commercial land uses are stated in thousand square feet of building area. The ITE rates were converted to acres using a 0.25 floor to area ratio (FAR).

Table 6

ESTIMATED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
1/Single Family Dwelling	30	90	110	60	1,600
1/Apartments	20	80	80	40	1,200
1/Commercial	110	60	340	340	7,400
Zone 1 Totals	160	230	530	440	10,200
2/Single Family Dwellings	50	130	160	90	2,300
Zone 2 Totals	50	130	160	90	2,300
3/Single Family Dwellings	20	50	60	30	900
Zone 3 Totals	20	50	60	30	900
Project Totals	230	410	750	560	13,400

Note: Trips generated are rounded to nearest 10 for peak hour and 100 for daily.

Table 7

ADJUSTED TOTAL PROJECT TRAFFIC GENERATION

Zone/Land Use	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
1/Single Family Dwelling	30	80	100	60	1,500
1/Apartments	20	80	80	40	1,100
1/Commercial	80	50	260	260	5,600
Zone 1 Totals	130	210	440	360	8,200
2/Single Family Dwellings	50	120	150	80	2,200
Zone 2 Totals	50	120	150	80	2,200
3/Single Family Dwellings	20	50	60	30	800
Zone 3 Totals	20	50	60	30	800
Project Totals	200	380	650	470	11,200

Note: Trips generated are rounded to nearest 10 for peak hour and 100 for daily.

Appendices

Appendix A - Glossary of Transportation Terms

Appendix B - Explanation and Calculation of Intersection Capacity Utilization

APPENDIX A

GLOSSARY OF TRANSPORTION TERMS

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
CalTrans:	California Department of Transportation
DU:	Dwelling Unit
EMA:	Environmental Management Agency
FAU:	Federal Aid Urban
FHWA:	Federal Highway Administration
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway which limits the amount of traffic which can proceed downstream from its location.

CAPACITY: The maximum number of vehicles which can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Same as yellow time.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic which will result in a volume during the peak hour equal to the capacity of the roadway.

DAILY TRAFFIC: Same as average daily traffic.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FIXED TIME SIGNAL: Same as pretimed signal.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections which are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LINK: The roadway segment between any two intersections.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire imbedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal which directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL COORDINATION: Same as interconnected signal system.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal which directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quality of trips produced and/or attracted attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other.

VEHICLE MILES: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length in miles.

APPENDIX B

EXPLANATION AND CALCULATION
OF INTERSECTION CAPACITY UTILIZATION

EXPLANATION AND CALCULATION OF INTERSECTION CAPACITY UTILIZATION (ICU)

The ability of a roadway to carry traffic is referred to as capacity. The capacity is usually greater between intersections and less at intersections because traffic flows continuously between them and only during the green phase at them. Capacity at intersections is best defined in terms of vehicles per lane per hour of green. If capacity is 1600 vehicles per lane per hour of green, and if the green phase is 50 percent of the cycle and there are three lanes, then the capacity is 1600 times 50 percent times 3 lanes, or 2400 vehicles per hour.

The technique used to compare the volume and capacity at an intersection is known as Intersection Capacity Utilization (ICU). ICU, usually expressed as a percent, is the proportion of an hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. If an intersection is operating at 80 percent of capacity, then 20 percent of the signal cycle is not used. The signal could show red on all indications 20 percent of the time and the signal would just accommodate approaching traffic.

ICU analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement of traffic, (b) summing the times for the movements, and (c) comparing the total time required to the total time available. For example, if for north-south traffic the northbound traffic is 1600 vehicles per hour, the southbound traffic is 1200 vehicles per hour, and the capacity of either direction is 3200 vehicles per hour, then the northbound traffic is critical and requires 1600/3200 or 50 percent of the signal time. If for the east-west traffic 30 percent of the signal time is required, then it can be seen that the ICU is 50 plus 30, or 80 percent. When left turn phases exist, they are incorporated into the analysis. The critical movements are usually the heavy left turn movements and the opposing through movements.

Level of service is used to describe the quality of traffic flow. Levels of Service A to C operate quite well. Level of Service C is typically the standard to which rural roads are designed, and level of Service D is the standard to which urban roadways are typically designed. Level of Service D is characterized by fairly restricted traffic flow. Level of Service E is the maximum volume a facility can accomodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration. A description of the various levels of traffic service appears on the following page, along with the relationship between ICU and level of traffic service.

The ICU calculation assumes that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersection is invalid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volume with a signal. It is possible to have an ICU well below 100 percent, yet have severe traffic congestion. This would occur if one or more movements is not getting sufficient green time to satisfy its demand, and excess green time exists on other movements. This is an operational problem which should be remedied.

Capacity is often defined in terms of roadway width; however, standard lanes have approximately the same capacity whether they are 11 or 14 feet wide. Our data indicates a typical lane, whether a through lane or a left turn lane, has a capacity of approximately 1750 vehicles per hour, with nearly all locations showing a capacity greater than 1600 vehicles per hour per lane. This finding is published in the August, 1978 issue of ITE Journal in the article entitled, "Another Look at Signalized Intersection Capacity" by William Kunzman. For this study, a capacity of 1600 vehicles per hour per lane will be assumed for both through and left turn lanes.

The yellow time can either be assumed to be completely used and no penalty applied, or it can be assumed to be only partially usable. Total yellow time accounts for less than 10 percent of a cycle, and a penalty up

to three percent is reasonable. On the other hand, during peak hour traffic operation the yellow times are nearly completely used. If there are no left turn phases, the left turn vehicles completely use the yellow time. If there are left turn phases, the through traffic continues to enter the intersection on the yellow until just a split second before the red. In this study no penalty will be applied for the yellow because the capacities have been assumed to be only 1600 vehicles per hour per lane when in general they are 1750.

The ICU technique is an ideal tool to quantify existing as well as future intersection operation. The impact of adding a lane can be quickly determined by examining the effect the lane has on the intersection capacity utilization.

ICU parallels another calculation procedure known as the Critical Lane Method with one exception. Critical Lane Method dimensions capacity in terms of standardized vehicles per hour per lane. A Critical Lane Method result of 800 vehicles per hour means that the intersection operates as though 800 vehicles were using a single lane continuously. If one assumes a lane capacity of 1600 vehicles per hour, then a Critical Lane Method calculation resulting in 800 vehicles per hour is the same as an ICU calculation of 50 percent since 800/1600 is 50 percent. It is our opinion that the Critical Lane Method is inferior to the ICU method simply because a statement such as "The Critical Lane Method value is 800 vehicles per hour" means little to most persons, whereas a statement such a "the Intersection Capacity Utilization is 50 percent" communicates clearly. A Critical Lane Method of ICU correspondence table is as follows, assuming a lane capacity of 1600 vehicles per hour.

Critical Lane Method Result	Corresponding ICU Result
800 vehicles per hour	50 percent
960 vehicles per hour	60 percent
1120 vehicles per hour	70 percent
1280 vehicles per hour	80 percent
1440 vehicles per hour	90 percent
1600 vehicles per hour	100 percent

LEVEL OF SERVICE DESCRIPTION

Level of Service	Description	Stopped Delay Per Vehicle (Seconds)	Intersection Capacity Utilization (Percent)
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 5.0	0 to 60
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	5.1 to 15.0	61 to 70
C	Level of Service generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	15.1 to 25.0	71 to 80
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	25.1 to 40.0	81 to 90
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	40.1 to 60.0	91 to 100
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	60.1 +	100 +

Source: "Highway Capacity Manual" Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1985, Pages 9-4 to 9-5.

INTERSECTION: US 395 (NS) AND PALMDALE ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING CONDITIONS-1991 1
Existing Geometrics

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	440	260	0	0	440	260	34*	23*
NR	0	0	20	30	0	0	20	30	0	0
NL	0	0	80	70	0	0	80	70	5	4
ST	2	3200	210	400	0	0	210	400	8	18
SR	0	0	20	70	0	0	20	70	0	0
SL	0	0	30	100	0	0	30	100	2*	6*
ET	1	1600	260	220	0	0	260	220	19*	19*
ER	0	0	30	70	0	0	30	70	0	0
EL	0	0	20	20	0	0	20	20	1	1
WT	1	1600	140	190	0	0	140	190	16	18
WR	0	0	100	50	0	0	100	50	0	0
WL	0	0	20	50	0	0	20	50	1*	3*
ICU									56	51
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING CONDITIONS-1991 1
Existing Geometrics

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	360	260	0	0	360	260	24*	19*
NR	0	0	30	40	0	0	30	40	0	0
NL	1	1600	10	20	0	0	10	20	1	1
ST	1	1600	160	330	0	0	160	330	11	24
SR	0	0	20	50	0	0	20	50	0	0
SL	1	1600	80	140	0	0	80	140	5*	9*
ET	1	1600	110	100	0	0	110	100	9*	8
ER	0	0	20	10	0	0	20	10	0	0
EL	0	0	20	20	0	0	20	20	1	1*
WT	1	1600	80	130	0	0	80	130	9	18*
WR	0	0	50	120	0	0	50	120	0	0
WL	0	0	20	30	0	0	20	30	1*	2
ICU									39	47
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND PALMDALE ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING PLUS PROJECT CONDITIONS 1
With CalTrans Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	440	260	10	10	450	270	15*	9
NR	0	0	20	30	0	0	20	30	0	0
NL	1	1600	80	70	10	20	90	90	6	6*
ST	2	3200	210	400	10	20	220	420	8	15*
SR	0	0	20	70	0	0	20	70	0	0
SL	1	1600	30	100	0	10	30	110	2*	7
ET	2	3200	260	220	0	10	260	230	9*	10*
ER	0	0	30	70	10	20	40	90	0	0
EL	1	1600	20	20	0	0	20	20	1	1
WT	2	3200	140	190	10	0	150	190	8	8
WR	0	0	100	50	10	0	110	50	0	0
WL	1	1600	20	50	0	0	20	50	1*	3*
ICU									27	34
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND LUNA ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING PLUS PROJECT CONDITIONS 1
With Project Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	430	400	0	0	430	400	27*	25
NR	1	1600	0	0	60	180	60	180	4	11
NL	0	0	0	0	0	0	0	0	0	0*
ST	1	1600	260	520	0	0	260	520	16	33*
SR	0	0	0	0	0	0	0	0	0	0
SL	1	1600	0	0	30	80	30	80	2*	5
ET	0	0	0	0	0	0	0	0	0*	0*
ER	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0
WR	1	1600	0	0	40	60	40	60	3	4
WL	1	1600	0	0	110	130	110	130	7*	8*
ICU									36	41
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING PLUS PROJECT CONDITIONS 1
Existing Geometrics

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	360	260	40	140	400	400	27*	28*
NR	0	0	30	40	0	0	30	40	0	0
NL	1	1600	10	20	0	0	10	20	1	1
ST	1	1600	160	330	90	100	250	430	17	30
SR	0	0	20	50	0	0	20	50	0	0
SL	1	1600	80	140	10	10	90	150	6*	9*
ET	1	1600	110	100	0	0	110	100	9	8
ER	0	0	20	10	0	0	20	10	0	0
EL	0	0	20	20	0	0	20	20	1*	1*
WT	1	1600	80	130	0	0	80	130	10*	19*
WR	0	0	50	120	10	20	60	140	0	0
WL	0	0	20	30	0	0	20	30	1	2
ICU									44	57
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: TOPAZ ROAD (NS) AND PALMDALE ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: EXISTING PLUS PROJECT CONDITIONS 1
With CalTrans and Project Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	0	0	0	0	0	0	0	0	0	0
NR	1	1600	0	0	90	130	90	130	6	8
NL	1	1600	0	0	10	10	10	10	1*	1*
ST	0	0	0	0	0	0	0	0	0*	0*
SR	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0
ET	2	3200	310	350	0	0	310	350	10*	11*
ER	0	0	0	0	10	10	10	10	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	2	3200	260	290	0	0	260	290	8	9
WR	0	0	0	0	0	0	0	0	0	0
WL	1	1600	0	0	50	170	50	170	3*	11*
ICU									14	23
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND PALMDALE ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: YEAR 1997 CUMULATIVE CONDITIONS 1
With CalTrans Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	680	400	10	10	690	410	23*	14
NR	0	0	30	50	0	0	30	50	0	0
NL	1	1600	140	130	10	20	150	150	9	9*
ST	2	3200	330	620	10	20	340	640	12	23*
SR	0	0	30	110	0	0	30	110	0	0
SL	1	1600	60	170	0	10	60	180	4*	11
ET	2	3200	400	350	0	10	400	360	15*	16*
ER	0	0	60	130	10	20	70	150	0	0
EL	1	1600	30	30	0	0	30	30	2	2
WT	2	3200	230	310	10	0	240	310	13	13
WR	0	0	160	90	10	0	170	90	0	0
WL	1	1600	30	80	0	0	30	80	2*	5*
ICU									44	53
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND LUNA ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: YEAR 1997 CUMULATIVE CONDITIONS 1
With Project Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	660	630	0	0	660	630	41*	39
NR	1	1600	30	100	60	180	90	280	6	18
NL	0	0	0	0	0	0	0	0	0	0*
ST	1	1600	420	800	0	0	420	800	26	50*
SR	0	0	0	0	0	0	0	0	0	0
SL	1	1600	10	10	30	80	40	90	3*	6
ET	0	0	0	0	0	0	0	0	0*	0*
ER	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0
WR	1	1600	10	10	40	60	50	70	3	4
WL	1	1600	80	60	110	130	190	190	12*	12*
ICU									56	62
LEVELS OF SERVICE									A	B

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: YEAR 1997 CUMULATIVE CONDITIONS 1
Existing Geometrics

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	1	1600	580	520	40	140	620	660	43*	48*
NR	0	0	70	100	0	0	70	100	0	0
NL	1	1600	20	30	0	0	20	30	1	2
ST	1	1600	350	580	90	100	440	680	29	48
SR	0	0	30	80	0	0	30	80	0	0
SL	1	1600	120	210	10	10	130	220	8*	14*
ET	1	1600	170	150	0	0	170	150	14	13
ER	0	0	30	20	0	0	30	20	0	0
EL	0	0	30	30	0	0	30	30	2*	2*
WT	1	1600	120	200	0	0	120	200	17*	31*
WR	0	0	80	180	10	20	90	200	0	0
WL	0	0	60	90	0	0	60	90	4	6
ICU									70	95
LEVELS OF SERVICE									B	E

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: US 395 (NS) AND DUNCAN ROAD/BEAR VALLEY ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: YEAR 1997 CUMULATIVE CONDITIONS 1
With Widening of US 395

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	2	3200	580	520	40	140	620	660	22*	24*
NR	0	0	70	100	0	0	70	100	0	0
NL	1	1600	20	30	0	0	20	30	1	2
ST	2	3200	350	580	90	100	440	680	15	24
SR	0	0	30	80	0	0	30	80	0	0
SL	1	1600	120	210	10	10	130	220	8*	14*
ET	1	1600	170	150	0	0	170	150	14	13
ER	0	0	30	20	0	0	30	20	0	0
EL	0	0	30	30	0	0	30	30	2*	2*
WT	1	1600	120	200	0	0	120	200	17*	31*
WR	0	0	80	180	10	20	90	200	0	0
WL	0	0	60	90	0	0	60	90	4	6
ICU									49	71
LEVELS OF SERVICE									A	C

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

INTERSECTION: TOPAZ ROAD (NS) AND PALMDALE ROAD (EW)
RUN TITLE: TALON RANCH TRAFFIC STUDY-REVISED 12/91

LAND USE: YEAR 1997 CUMULATIVE CONDITIONS 1
With CalTrans and Project Improvements

INTERSECTION VOLUMES AND CAPACITY UTILIZATION

MOVEMENTS	LANES	CAPACITY	EXISTING VOLUME		PROJECT VOLUME		TOTAL VOLUME		V/C RATIO(%)	
			AM	PM	AM	PM	AM	PM	AM	PM
NT	0	0	0	0	0	0	0	0	0	0
NR	1	1600	0	0	90	130	90	130	6	8
NL	1	1600	0	0	10	10	10	10	1*	1*
ST	0	0	0	0	0	0	0	0	0*	0*
SR	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0
ET	2	3200	480	570	0	0	480	570	15*	18*
ER	0	0	0	0	10	10	10	10	0	0
EL	0	0	0	0	0	0	0	0	0	0
WT	2	3200	420	470	0	0	420	470	13	15
WR	0	0	0	0	0	0	0	0	0	0
WL	1	1600	0	0	50	170	50	170	3*	11*
ICU									19	30
LEVELS OF SERVICE									A	A

ICU IS THE SUM OF THE CRITICAL MOVEMENTS, DENOTED BY AN ASTERISK (*)

THE TURNING MOVEMENTS ADD TO THE THROUGH VOLUMES
WHEN THERE ARE NO TURNING LANES.

N: NORTH, S: SOUTH, E: EAST, W: WEST
T: THROUGH, R: RIGHT, L: LEFT

Figure 6a
Traffic Distribution – Zone 1

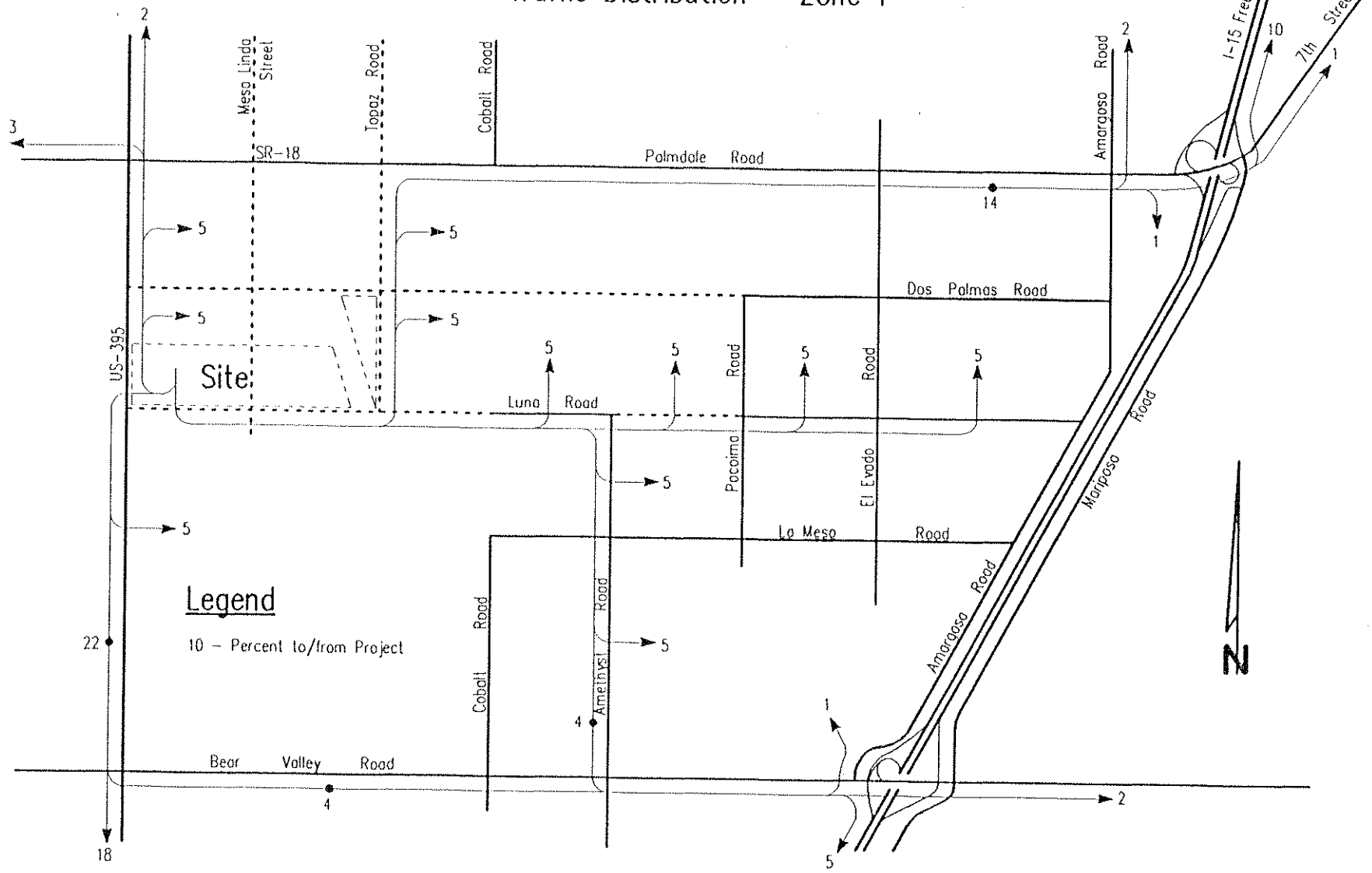


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Figure 6b
Traffic Distribution – Zone 2

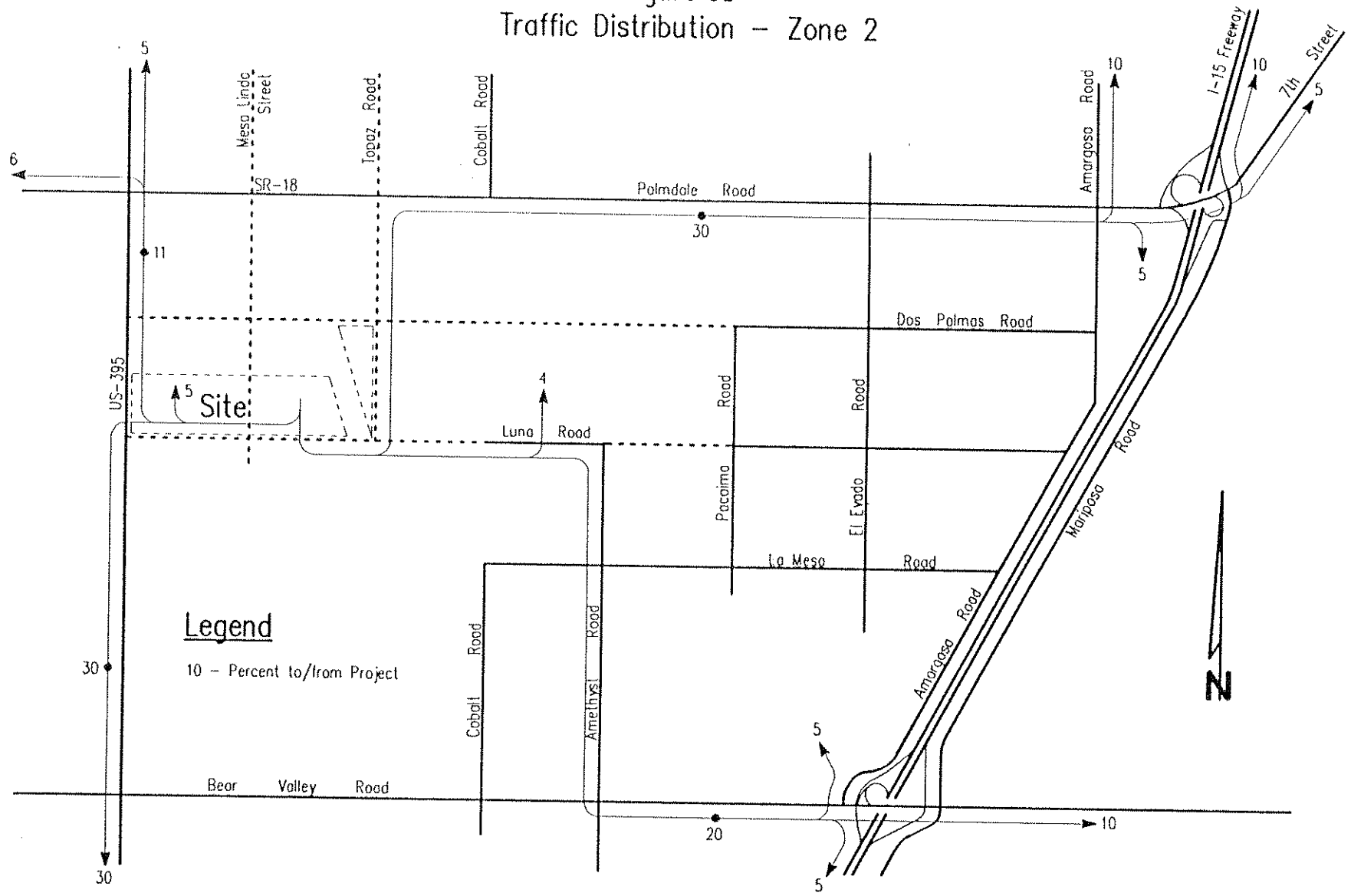

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Figure 6c
Traffic Distribution – Zone 3

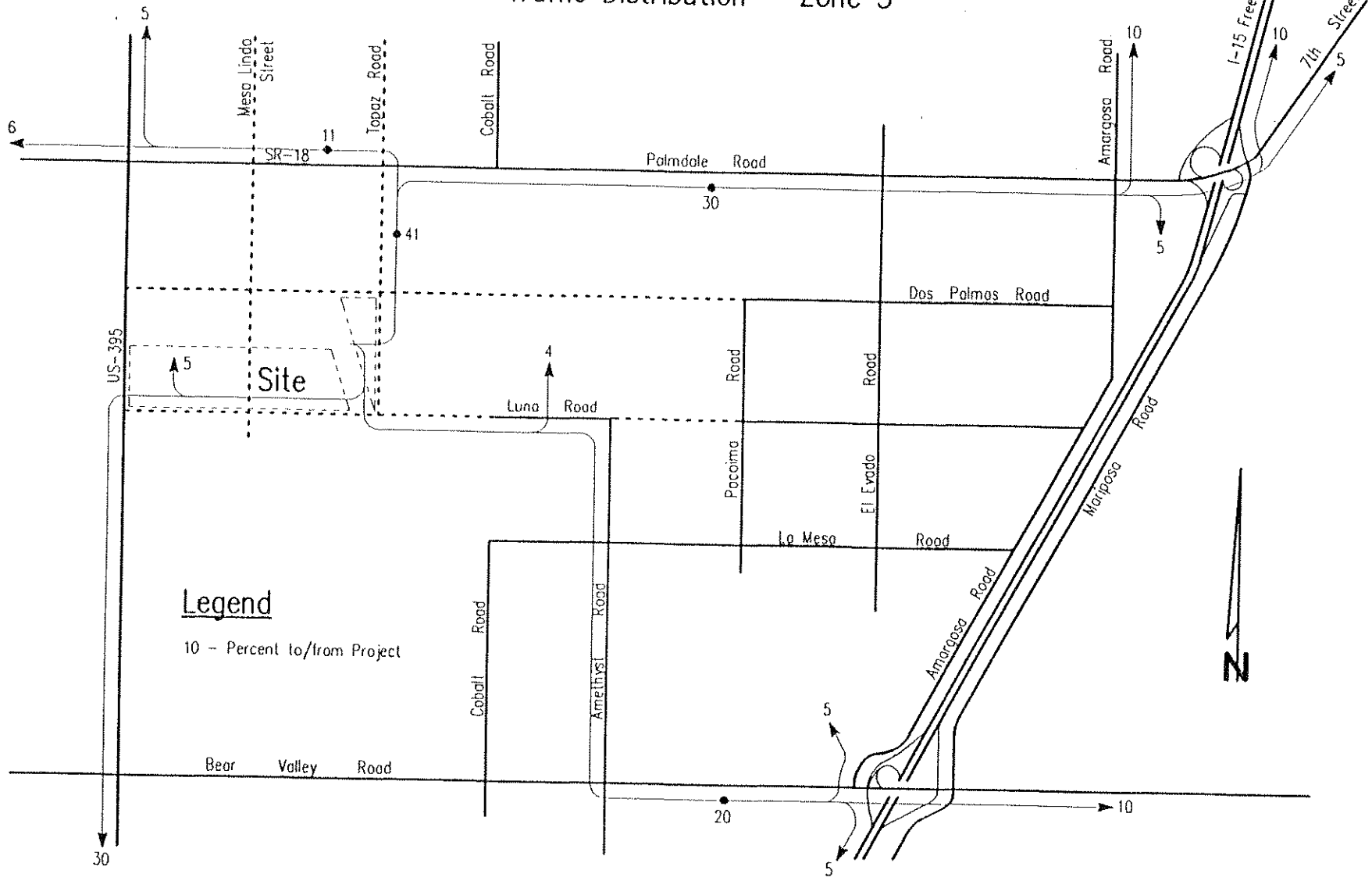

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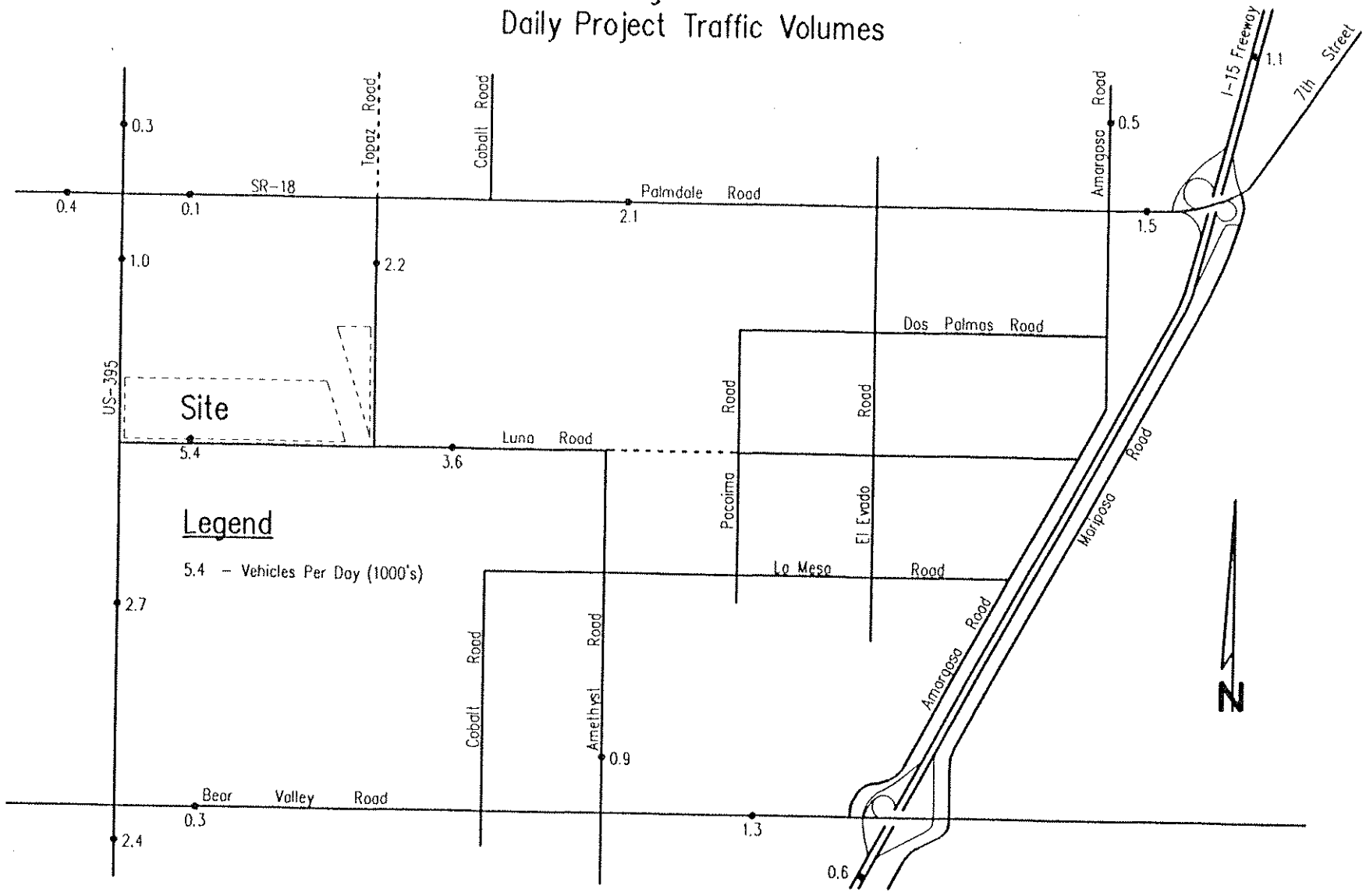
Figure 7
Daily Project Traffic Volumes



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5. Existing Plus Project Traffic Conditions

This section analyzes the impact of existing plus project conditions. The following improvements were assumed as the minimum necessary to provide access to the parcels in the Talon Ranch.

1. Construction and paving of Luna Road from Amethyst Road to U.S. 395.

OR

2. Construction and paving of Topaz Road from Luna Road to Palmdale Road.

Each road was assumed to be constructed as a two lane undivided street.

Existing Plus Project Daily Traffic Volumes

Figure 8 shows estimated daily traffic volumes for existing plus project traffic conditions.

Existing Plus Project Daily Volume to Capacity Ratios

Daily volume to capacity ratios have been calculated and are shown in Figure 8. The ratios are based on the maximum daily capacities discussed in Section 3 and existing street widths with the new streets (i.e. Luna and Topaz Roads) as discussed in the beginning of this section. Based on the daily volume to capacity ratios, roadways in the vicinity of the project site are projected to operate at Level of Service C or better for existing plus project traffic conditions except for U.S. 395 which is estimated to operate at Level of Service F.

Existing Plus Project Intersection Capacity Utilization

Intersection Capacity Utilization (ICU) values for the existing plus project traffic conditions have been calculated and are shown in Table 8. Intersections in the vicinity of the site are projected to continue to operate at a Level of Service A during the peak hours for existing plus project traffic conditions.

Traffic Signal Warrants

The volumes on Figure 8 satisfy the signal warrants on Table 4 at U.S. 395/Luna Road.

Table 8

EXISTING PLUS PROJECT INTERSECTION CAPACITY UTILIZATION

Intersection	Intersection Approach Lanes (1)												Peak Hour ICU-LOS (2)	
	Northbound			Southbound			Eastbound			Westbound				
	T	R	L	T	R	L	T	R	L	T	R	L	AM	PM
U.S. 395 (NS) at														
Palmdale Road (EW) (3)	2	0	1	2	0	1	2	0	1	2	0	1	27-A	34-A
Luna Road (EW) (4)	1	1	*	1	*	1	*	*	*	*	1	1	36-A	41-A
Bear Valley Road (EW) (5)	1	0	1	1	0	1	1	0	0	1	0	0	44-A	57-A
Topaz Road (NS) at														
Palmdale Road (EW) (6)	*	1	1	*	*	*	2	0	*	2	*	1	14-A	23-A

(1) When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

(2) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

(3) With CalTrans Improvements

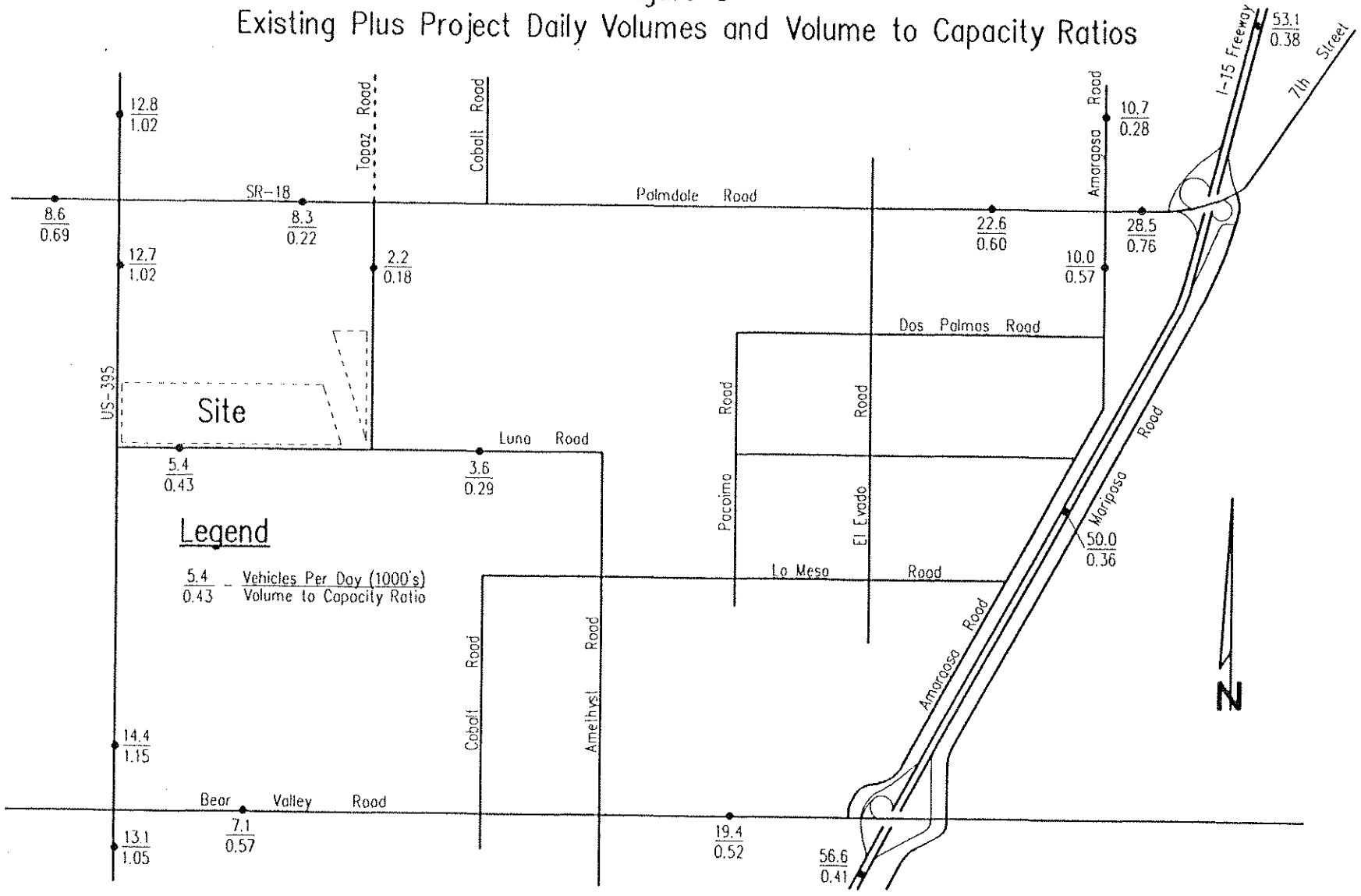
(4) With Project Improvements

(5) Existing Geometrics

(6) With CalTrans and Project Improvements

T = Through
R = Right
L = Left
* = Movement not possible

Figure 8
Existing Plus Project Daily Volumes and Volume to Capacity Ratios



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6. Year 1997 Traffic Conditions

This section discusses cumulative traffic (i.e. background plus project) conditions at completion of Talon Ranch in 1997. The background traffic includes existing traffic, growth in existing traffic due to increases in through traffic and traffic from other approved developments in the area.

Annual Growth Rate

An annual growth rate of 7 percent was used for the period 1991-1997 to reflect increases in through traffic. Although this is a higher rate than population projections for Victorville, it is less than recent historical growth on key arterial streets in the city.

Other Developments

Foxfire Ranch is an approved development in the general vicinity of Talon Ranch and is assumed to be complete by 1997. Table 9 shows the peak hour and daily traffic volumes generated by Foxfire Ranch. The daily traffic on the streets in the vicinity of the site generated by Foxfire Ranch is shown on Figure 9.

Cumulative Daily Volumes

The 1997 cumulative daily volumes are illustrated on Figure 10 and include existing, growth in existing, Foxfire Ranch, and Talon Ranch traffic.

Cumulative Intersection Capacity Utilization

The project's peak hour traffic was added to the 1997 background traffic volumes and the resultant ICU's are shown on Table 10. The intersection geometrics on Table 10 are those which were assumed to be constructed as part of the CalTrans project and associated with the development of Talon Ranch.

Cumulative Traffic Mitigations

The volumes on Figure 10 and the ICU values on Table 10 indicate that the following improvements will be needed in order for all street segments and intersections to operate at Level of Service C or better:

1. Provision of four (4) lanes on U.S. 395.

2. Widening of Palmdale Road to six (6) lanes between El Evado Road and I-15.

3. Provision of six (6) lanes on Bear Valley Road between Amethyst Road and I-15.

The 1997 Cumulative ICU values with the above improvements are listed on Table 10 and show that all intersections are projected to operate at Level of Service C or better during the peak hours.

The daily volumes on Figure 10 satisfy the traffic signal warrants at the intersection of Palmdale Road/Topaz Road.

Table 9

OTHER DEVELOPMENT TRAFFIC GENERATION

Development	Morning Peak Hour		Evening Peak Hour		Daily
	In	Out	In	Out	
Foxfire Ranch	330	670	990	710	18,000

Table 10

YEAR 1997 CUMULATIVE INTERSECTION CAPACITY UTILIZATION

Intersection	With Existing Plus Project Geometrics		With Additional Improvements	
	AM	PM	AM	PM
U.S. 395 at				
Palmdale Road	44-A	53-A	(2)	(2)
Luna Road	56-A	62-B	(2)	(2)
Bear Valley Road	70-B	95-E	49-A	71-C
Topaz Road at				
Palmdale Road	19-A	30-A	(2)	(2)

(1) Intersection Capacity Utilization (ICU) - Level of Service (LOS)

(2) Improvements not required

Figure 9
Foxfire Ranch Daily Traffic Volumes

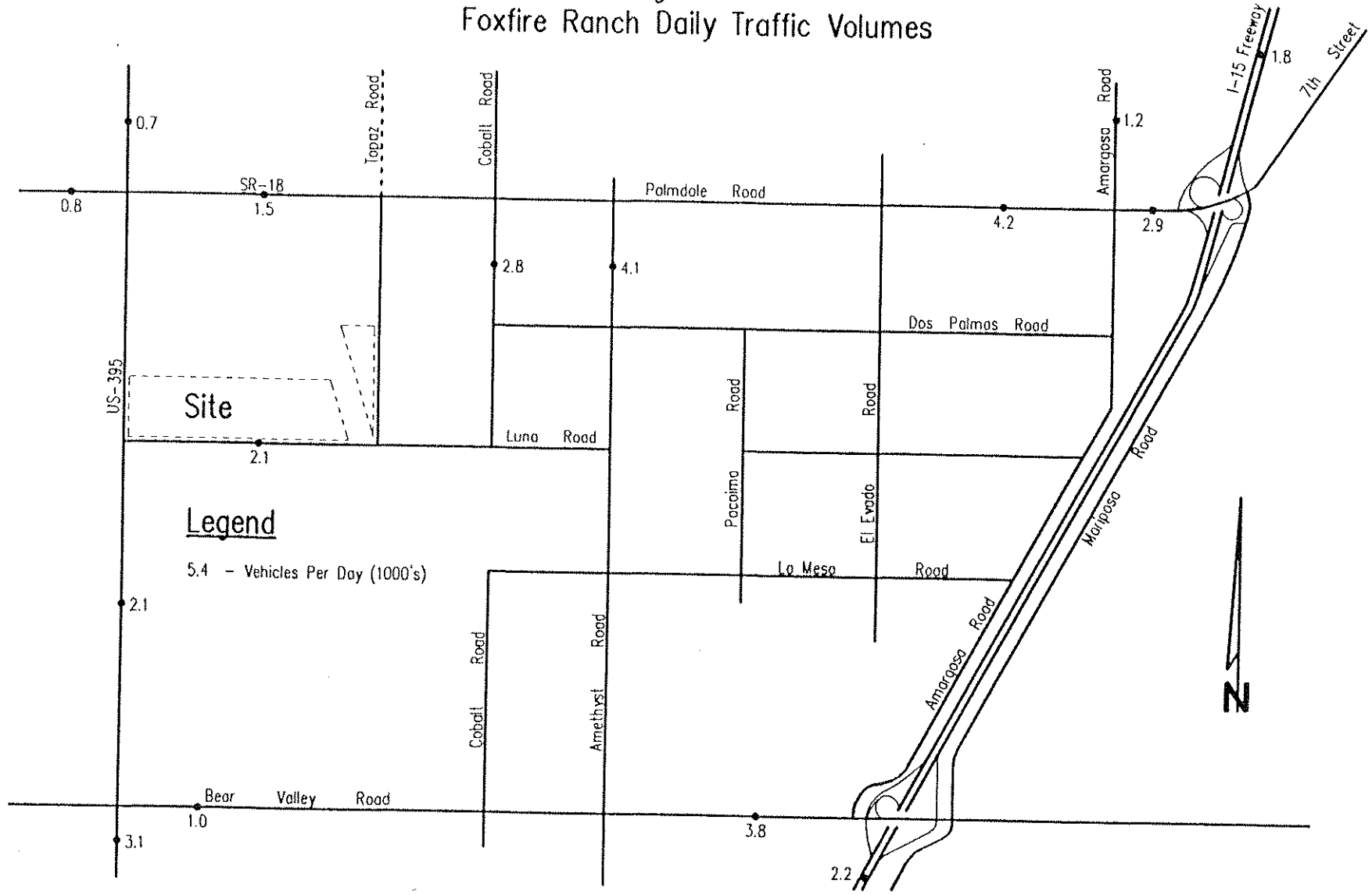

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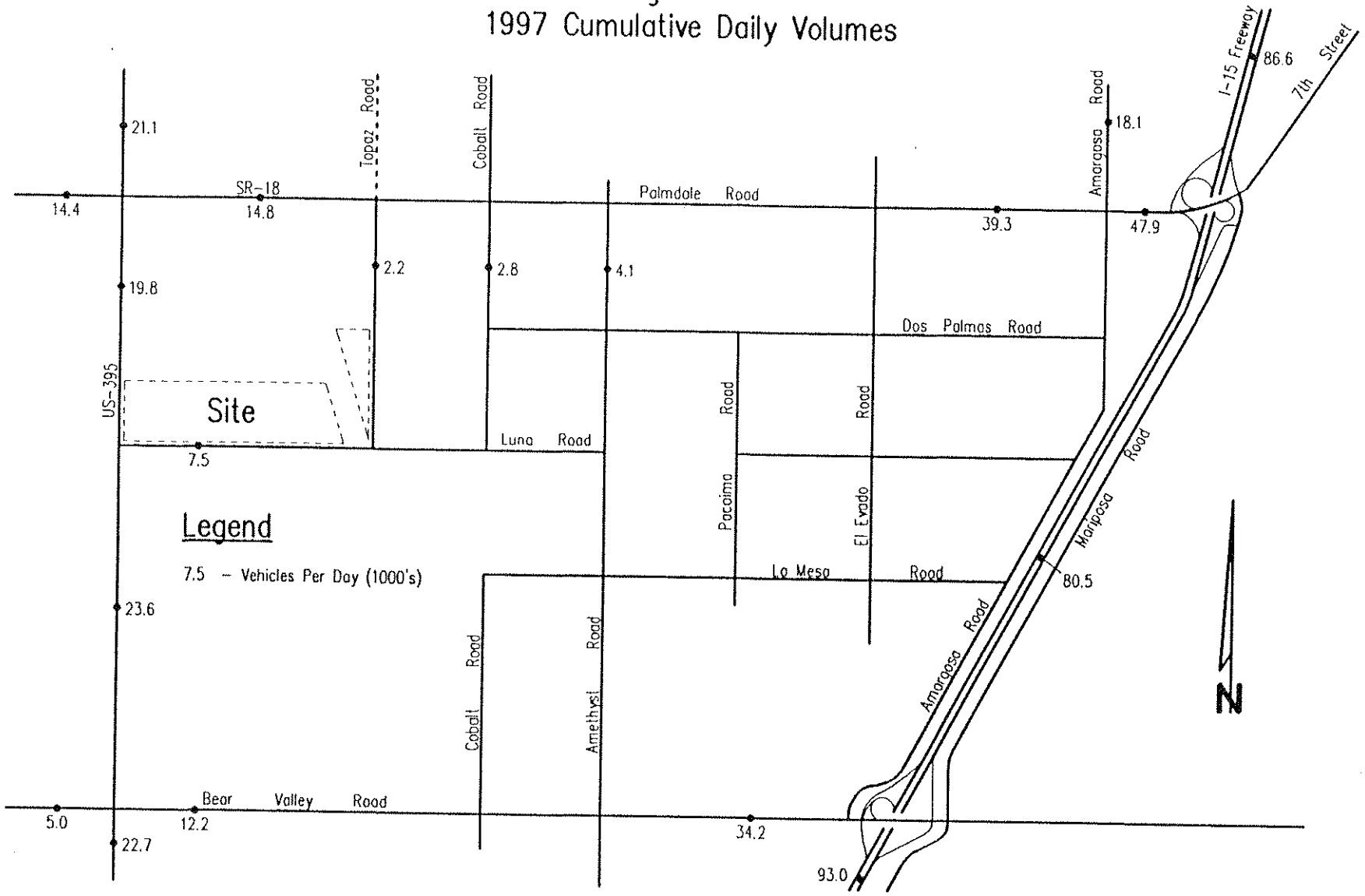
Figure 10
1997 Cumulative Daily Volumes



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7. Internal Circulation and Access

As the site plans for the parcels in Talon Ranch are developed, it is recommended that the following guidelines be incorporated into the project design.

Internal Design Guidelines for Residential Development

1. Local streets should have a minimum radius of 250 feet (25 m.p.h. design speed).

2. Cul-de-sacs should not exceed 400 feet in length to facilitate emergency access.

3. Long straight roadway stretches should be avoided to discourage excessive speeds and thereby reduce safety hazards.

4. Adjacent intersections along the same street, but on opposite sides, should be offset a minimum of 150 feet centerline to centerline on collector and local streets.

5. Streets grades should not exceed 8 percent. Steep grades do not pose major problems but do increase braking distances, vehicle delay, and the likelihood of accidents.

6. Streets should intersect at as near to a right angle as possible, and at not more than a 15 degree skew.

7. Streets should intersect others on the outside rather than the inside of a horizontal curve.

8. Streets should not intersect on a crest vertical curve.

9. Schools should be located on low volume local streets and not on collectors.

10. Landscape plantings and signs should be limited to 36 inches in height within 25 feet of project driveways to assure good visibility.

Commercial Access Design Guidelines

1. Access roads and/or driveways for the commercial developments should be located at least 200 feet apart and at least 200 feet from the nearest intersection.

2. Driveways to retail commercial should be curb-return type with at least 35 foot radius.

3. Driveways should be at least 28 feet wide, and preferably 30 to 35 feet wide, so that an entering vehicle does not interfere with an exiting vehicle. Narrower driveways lead to conflict between entering and exiting vehicles, causing one to stop and wait for the other.

4. The first parking stall which is perpendicular to a driveway, or first aisle juncture, should be at least 40 feet back from the curb. The reason for this recommendation is to provide a queueing area off street so that if a vehicle is parking or unparking in the stall nearest the street, there is room for at least one vehicle to queue while waiting for the other vehicle to park. Without this provision, vehicles will queue into the street.

5. To provide for sufficient site access and yet minimize the number of required access locations, joint site access with adjacent sites should be encouraged in the planning of site development.

6. Landscape plantings and signs should be limited to 36 inches in height within 25 feet of project driveways to assure good visibility.