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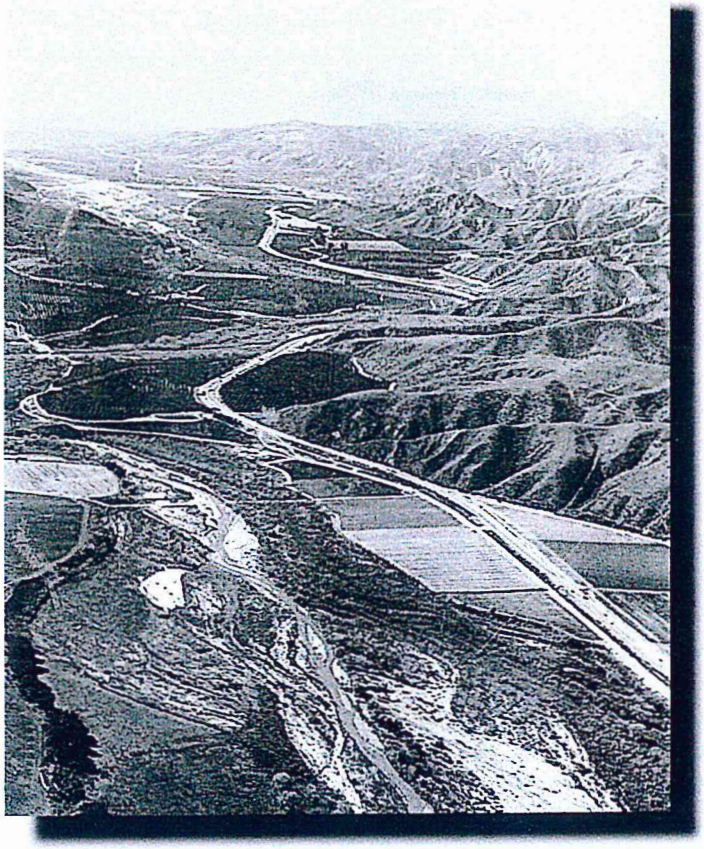

Ventura

Saticoy

Santa Paula

Fillmore

Piru

Santa Paula Branch Line Recreational Trail

Master Plan

Draft

Santa Paula Branch Line Recreational Trail

Alignment & Master Plan

Draft
July 1999

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Santa Paula Branch Line Recreational Trail Advisory Committee

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TABLE OF CONTENTS

15.0 Appendices

Data Collection
Trail Advisory Committee
Agriculture Sub-Committee
Additional Outreach Materials
Public Workshop Series #1
Miscellaneous Correspondence
Agriculture Commissioners Office Advisory Questionaire
Summary of Existing Plans and Documents
Cost Analysis Segment Sheets

List of Figures

List of Figures

List of Figures

Executive Summary

The Santa Paula Branch Line Recreational Trail Master Plan establishes the preferred alignment and design of a recreational trail through the Santa Clara River Valley. The Trail, a multi-use pathway for bicycle and pedestrian use will be located primarily within existing rail road right of way that is owned by the Ventura County Transportation Commission (VCTC). In approximately four locations the Trail will depart from the VCTC ROW to use adjacent County or City roads and pathways. The Trail is proposed to traverse approximately 32 miles that stretch between San Buenaventura, beginning at Johnson Drive at the Harmon Barranca Trail, and terminating on the eastern end at Historic Rancho Camulos. Eventually the trail will connect through to the City of Santa Clarita in Los Angeles County and extend further west to the Coastal Trail west of Highway 101 in the City of San Buenaventura.

The Trail will be located within the County of Ventura and multiple city and community jurisdictions, including San Buenaventura, Saticoy, Santa Paula, Fillmore, and Piru. The planning effort for this Trail Master Plan has been conducted within the framework of an extensive public outreach program, designed to involve all those interested and affected by the proposed trail. Interviews, the Master Plan Advisory Committee, an Agricultural Advisory Committee, workshops and newsletters were used to fully engage and explore issues important to interest groups and the public at large. The resulting work in the Trail Master Plan Document largely reflects the input and advice provided through the public process.

This Trail Master Plan document is intended to serve as the framework for phased implementation of a recreational trail, allowing continuity in the Trail's design and installation as it is developed, thus making its construction seamless as it crosses jurisdictional boundaries. The Trail Master Plan also establishes the guiding policies and the organizational structure necessary to provide for ongoing operations and maintenance of the Trail once it is in place.

The Ventura County Transportation Commission (VCTC) purchased the Santa Paula Branch Line in 1995 with the active cooperation of the County of Ventura, and the Cities of Fillmore, Santa Paula and San Buenaventura. In 1996, the VCTC completed the Santa Paula Branch Line Master Plan which formally established the framework of policies, procedures and standards for the management and operation of the Santa Paula Branch Line Rail corridor. That document also set the goal for the expanded use of the rail corridor for recreational trail use, along with continued rail services, and is the impetus behind the preparation of this Master Trail Plan document.

The Santa Clara River Valley is rich in it historical ties to agriculture and the railroad. The almost 5-mile wide valley is estimated to have 22,000 acres in citrus crop production and is also the home to other significant crops such as avocados and row crops. While the rail corridor passes through three incorporated cities and two unincorporated communities, the majority of

the length of the rail corridor passes through large expanses of agricultural areas. With on-going efforts underway to promote the historic rural agricultural qualities of the Santa Clara Valley through the Heritage Valley Program, the Trail provides a unique opportunity to begin implementing a physical connection through the Valley and a tie to the Heritage Valley Program. Opportunities are abundant for educational, interpretive, historic, scenic and other connections to the area through implementation of the Trail.

Throughout the preparation of the Trail Master Plan agricultural compatibility issues have been a point of focus. The planning team began an extensive data collection and outreach program as the first steps in the planning process to better understanding the needs and issues of the agricultural community. These early meetings lead to the establishment of an agricultural advisory subcommittee to the master plan advisory committee. A large portion of this document is devoted to an in-depth discussion of these issues and the potential solutions. In summary the VCTC right of way will be far more secure with controlled access points, fencing, Intelligent Transportation System (ITS) security and active trail management and present less liability for both adjacent landowners and VCTC following completion of the Trail than presently exists.

As stated in the adopted Santa Paula Branch Line Master Plan, both a recreational trail and active passenger train service is ultimately planned for this important transportation corridor. As such this right of way should be considered a rail-with-trail facility requiring many additional planning and design standards be taken into consideration. One particular feature of the Trail which will be effective in enhancing security, Trail management efforts and trail user services is the use of Intelligent Transportation Systems (ITS) or "smart Trails". This technology is proposed for use on the Trail and will enable Trail managers to observe trail activities by remote video cameras and post electronic messages concerning Trail conditions, closures and other information at on-Trail signs and Kiosks at access points. This system will be linked to local law enforcement agencies to quickly respond to illegal and criminal activities, and enable portions of the Trail to be physically closed with the use of electronic crossing arms at key locations and active farm crossings.

Implementation of the Trail will occur in phases beginning where Trail use is expected to be the highest. The Implementation section of the document deals with these issues and also sets forth the expected permitting and approval process for the design development and construction phases of the Trail identifying what is expected of various agencies and the role VCTC will play. Funding is also addressed in this section of the document with an outline of the various funding sources available to plan and construct the trail as well as the estimated costs.

Perhaps one of the most important portions of the Trail Master Plan is the management and organization structure of the Trail. This management and operation structure for the Trail identifies the roles each jurisdiction may play and estimates potential construction costs and funding sources that are available. In addition, VCTC, the County of Ventura and the 3 incorporated Cities have executed a Memorandum's of Understanding. This MOU sets forth the relationship, roles and responsibilities between VCTC and these agencies for all matters dealing with the

existing Branch Line Right-of-Way. The Management and operations structure will use this MOU system to further define these relationships and responsibilities for the purpose of planning, construction and managing the Recreational Trail.

Last but not least is the specific design of the Trail Itself. As the Trail traverses through many jurisdictions and through land of changing character in it's 32 mile length, the need for the Trail to be compatible with various natural and urban environments and be responsive to challenging physical obstacles was great. The Chapter on Trail design contains clear standards for trail designs on a wide range of topics which meet both the regulatory requirements and yet are flexible in design character to reflect the particular image of specific jurisdictions.

1.0 Introduction and Project Setting

Introduction

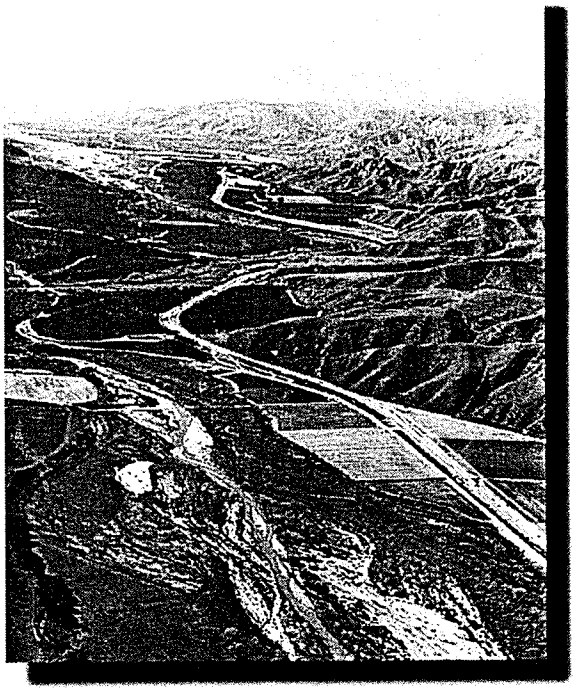
This study is the result of a directed effort on the part of the Ventura County Transportation Commission to carry out previously established goals contained in the *Santa Paula Branch Line Master Plan* to further develop the framework to use the rail corridor for expanded recreational trail purposes, in addition to continued and expanded rail services.

The purpose of this Trail Master Plan is to establish the continuous alignment and set of design standards for a multi-use recreational trail that will work within the context of existing physical constraints of the railroad right of way. The Plan is intended to identify the planning issues associated with the trail's construction, and present feasible solutions for both its design and long term operation and maintenance.

The planning effort for the Trail Plan has been conducted within the framework of an extensive public outreach program, designed to involve all those interested and effected by the proposed trail.

The Project Study Area

The project study area stretches nearly the length of the Santa Clara River Valley in Ventura County which is defined by a rich agricultural and railroad tradition. The area still maintains its rural atmosphere which the residents cherish, and the preservation and enhancement of which is key to the future prosperity of the area.



Trail Corridor Looking West

The former Southern Pacific Santa Paula Branch Line right-of-way, now owned by the Ventura County Transportation Commission (VCTC), is a defining feature of the area. The railroad corridor will provide the primary corridor for the Santa Paula Branch Line Recreational Trail.

As shown in Figure 1, the railroad is located in the center of the valley to the north of the Santa Clara River, generally following near State Route 126 and linking the large and small communities of San Buenaventura, Montalvo, Saticoy, Santa Paula, Fillmore, and Piru. The railroad right of way which is the subject of this study, is an approximate 32-mile continuous stretch

of travel corridor, providing a unique opportunity to eventually create a transportation and recreational link between existing trails and transportation facilities in the City of Santa Clarita at its eastern end, and within San Buenaventura at the western coastline.

The topography of the study area ranges from level marine plateau in the west to rolling hills and rugged mountains around Santa Paula and Fillmore. The terrain is punctuated by the Santa Clara River and numerous drainage tributaries. Much of the corridor is used for agriculture, primarily citrus fruits and avocados.

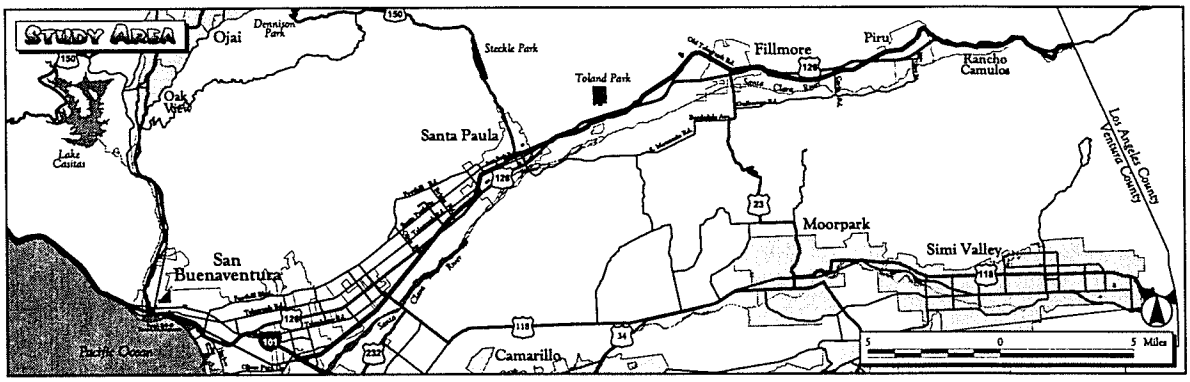


Figure 1. Project Study Area Regional Map

The Planning Process

Finding realistic and practical solutions to trail design issues lies in not only the understanding of the physical issues faced, but by understanding the needs, desires and issues envisioned by those most effected by the proposed trail. Those persons include property owners adjacent to the trail, adjacent business operators, potential trail users, the varied historical, rail, and economic interest groups, and the multiple public agencies along the trail's route.

Individual Interviews:

A series of personal discussions with property owners, business operators, interest group representatives and public officials associated with or effected by the trail took place as a first step in the trail plan.

Data Collection:

Document research, mapping of the corridor and numerous field visits formulated the set of working maps and corridor information used in design discussions.

Newsletters:

Three Newsletters were distributed to keep affected parties appraised of the progress of the planning process, dates of public workshops and meetings, and included tips for providing their public input.

Trail News

Santa Paula Branch Line Recreational Trail

Ventura County Transportation Commission — Spring 1998

TRAIL UPDATE

This is the second in a series of newsletters designed to update the public regarding the status of the Santa Paula Branch Line Recreational Trail study. The proposed trail study area comprises the approximate 32-mile railroad right-of-way corridor stretching between Montalvo and Rancho Camulos east of Piru. Ultimately, an envisioned trail will create a continuous link between San Buenaventura and Santa Clarita, providing a place for bicyclists, pedestrians and other non-motorized users to recreate and enjoy the Santa Clara River Valley.

The first trail newsletter, published in November 1997, focused on the tangible steps in the trail planning process, the sensitive design and land use issues in need of resolution, and the groups which had been formed to lead that effort. While the trail Advisory Committee and the Agricultural Subcommittee are groups providing focused input on a regular basis throughout this process, the upcoming public workshops will provide a direct opportunity for you, as a neighbor or interested party of the trail, to review and comment on its proposed design. Stay involved and please plan on attending one of the public workshops coming to your area in the month of July. Meeting places, dates and times will be forwarded in the near future.

Trail Corridor Looking West

NEIGHBORS ALONG THE RAIL

There are many residences, commercial and industrial buildings, public uses and agricultural operations along the railroad corridor. Each are important neighbors with their own set of unique needs for trail design compatibility. Agriculture is the most prominent neighboring land use to the rail corridor. Across citrus, avocado and row crop farming accounts for over 75% of the adjacent property uses along the corridor.

Beyond being a key neighbor to the trail, agriculture is a top ranking

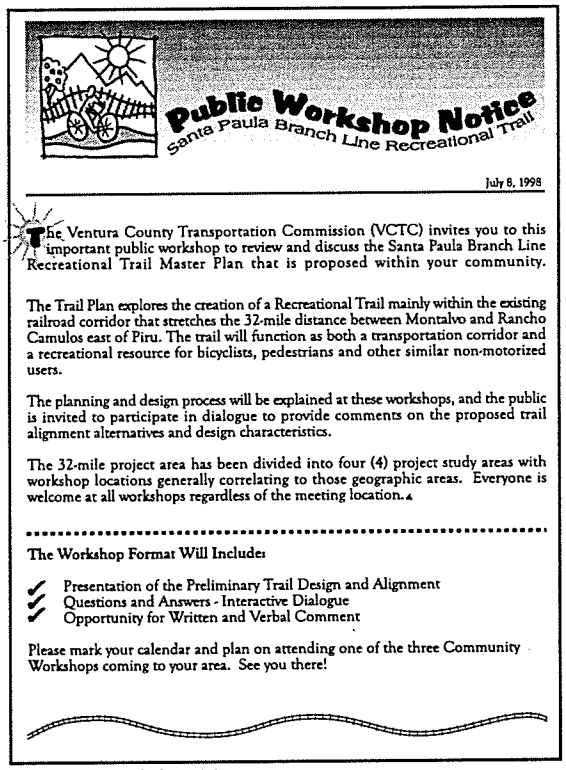
Continued on inside left . . .

✓ VCTC STANDARD NEWS
✓ TRAIL RELATED ACTIVITIES

- Public Notices
- Newsletter Supplements
- Advisory Committee Rosters
- Advisory Committee Minutes

Visit Our Web Site:
www.goventura.org

Figure 2. Newsletter #2



Public Workshop Notice

Santa Paula Branch Line Recreational Trail

July 8, 1998

The Ventura County Transportation Commission (VCTC) invites you to this important public workshop to review and discuss the Santa Paula Branch Line Recreational Trail Master Plan that is proposed within your community.

The Trail Plan explores the creation of a Recreational Trail mainly within the existing railroad corridor that stretches the 32-mile distance between Montalvo and Rancho Camulos east of Piru. The trail will function as both a transportation corridor and a recreational resource for bicyclists, pedestrians and other similar non-motorized users.

The planning and design process will be explained at these workshops, and the public is invited to participate in dialogue to provide comments on the proposed trail alignment alternatives and design characteristics.

The 32-mile project area has been divided into four (4) project study areas with workshop locations generally correlating to those geographic areas. Everyone is welcome at all workshops regardless of the meeting location.

The Workshop Format Will Include:

- ✓ Presentation of the Preliminary Trail Design and Alignment
- ✓ Questions and Answers - Interactive Dialogue
- ✓ Opportunity for Written and Verbal Comment

Please mark your calendar and plan on attending one of the three Community Workshops coming to your area. See you there!

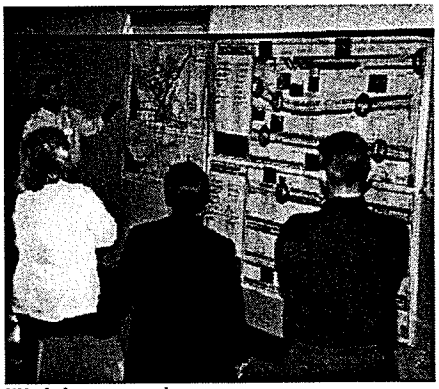
Figure 3. Workshop Notice

Letters to Adjacent Agricultural Properties:

In addition to newsletters and public workshop notice letters sent to property owners within 300 feet of the length of the corridor, letters describing the trail planning process were mailed to adjacent property owners of record that were in active agricultural use.

Public Workshops:

Two series of public workshops to present preliminary trail concepts, collect direct input relative to specific geographic areas along the trail's alignment, and provide a forum for consensus building were conducted. Each workshop series included multiple meetings in communities along the project corridor, all of which were publicly advertised and notices mailed to surrounding property owners and interested parties along the trail route. Public participation results from those workshops are included in the appendices.



Workshops provide opportunities to express your ideas.

Trail Advisory Committee:
The Trail Advisory Committee consisted of approximately 18 members who represented a cross section of interest groups, businesses, property owners and public agencies who had interest in the outcome of the trail planning effort. The group met four times over the course of the planning process and provided input, suggestions, and critique of the goals, policies, and guiding design and alignment criteria for the Trail Plan. Beyond providing input at meetings with the consulting project team, the Advisory Committee acted as an information conduit with their respective interest groups, and helped the project team stay aligned with public sentiment.

Agricultural Advisory Subcommittee:
Based on the high percentage of existing agricultural operations along the project study route, agriculture and trail interface issues were identified early on in the planning process. As these issues began to dominate the Trail Advisory Committee meetings, the Agricultural Advisory Subcommittee was formed to specifically focus on those compatibility issues key to the agricultural community. The Agricultural Subcommittee met three additional times to the Trail Advisory Committee meetings. Those meetings included individuals from the insurance industry and legal counsel to address issues relating to liability that had been raised.

A summary of the public outreach materials are contained in the appendices.

Purpose and Intent of the Trail Master Plan

The Trail Master Plan is intended to become the working framework for phased implementation of the full length of the recreational trail. Because the trail corridor passes through multiple communities with varied character and design features, the Trail Master Plan is intended to create continuity in the trail's installation as it is developed, making its construction seamless as it crosses jurisdictional boundaries. The Trail Master Plan will also create the guiding policies, and organizational structure necessary for the complexities of ongoing operational and maintenance issues. The Plan will become the foundation on which future detailed construction and engineering designs are based, some of those plans of which may be subject to future/subsequent public review.

More specifically, the purpose of this study is to:

- Provide background on the project history, goals, and relationship to existing plans and other relevant documents;
- Identify the future Santa Paula Branch Line Rail Trail users and their needs;
- Identify constraints and proposed solutions including liability, protection of adjacent land uses, safety, grade crossings, environmental conditions, property ownership, and railroad operations;
- Develop alternative alignments where constraints cannot be overcome in either the short or long-term;

- Develop design standards to facilitate the design process and ensure consistency across cities and with established state and national standards; and
- Provide implementation details on funding, liability, safety, landscaping, maintenance, legal agreements, environmental permitting, and other items.

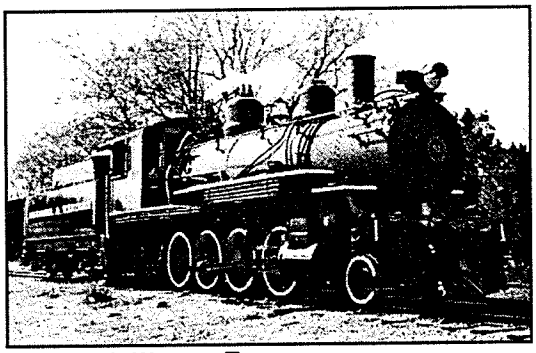
Most importantly, the study provides a forum for discussion on the planning and design issues that can be resolved prior to developing construction documents.

2.0 Background

Historic Railroad of the Rail Road Corridor

History Rail Road Corridor

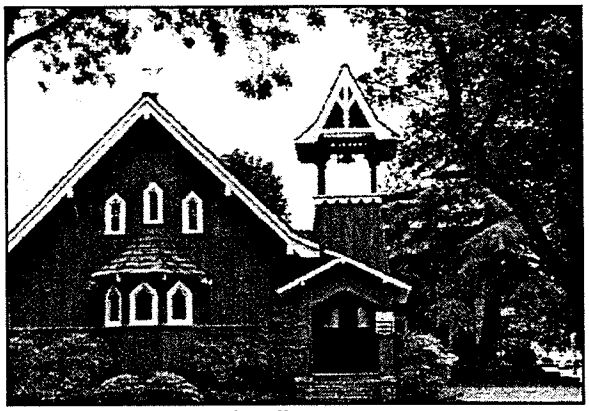
The Santa Clara River Valley is rich in it historical ties to agriculture and the railroad. The almost 5-mile wide valley is estimated to have 22,000 acres in citrus crop production and is also the home to other significant crops such as avocados. While the rail corridor passes through three incorporated cities and two unincorporated communities, the majority of the length of the rail corridor passes through large expanses of agricultural areas. The compatibility of a recreational trail with operating agriculture is discussed in detail further in this document.

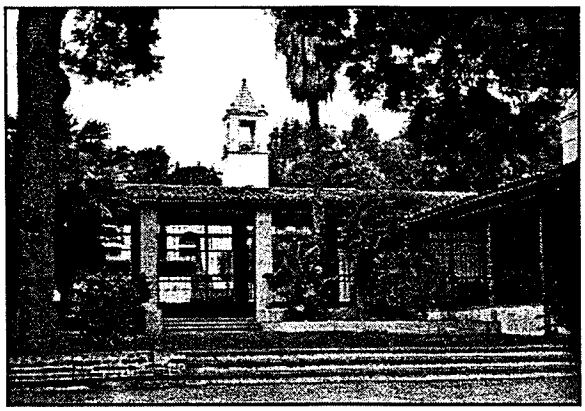

Fillmore & Western Train

The rail line through the valley was constructed in 1887 and 1888 as a means of connecting Santa Barbara to the main line that ran between San Francisco and Los Angeles in the San Joaquin Valley. When a route was completed in 1901 between Santa Barbara and San Francisco, the line through the Santa Clara River Valley became part of the Coast Line. Then later in 1907, when an even more direct route between Montalvo and points south was completed, the Santa Clara River Valley segment became known as *the Santa Paula Branch.* Passenger service on the Santa Paula Branch ended in 1934, but today there continues to be excursion trains and filming operations between Santa Paula and Fillmore, and limited freight activity between Montalvo and Santa Paula. The excitement of the trains in their "glory days" is kept alive through both profit and non-profit organizations, such as the Fillmore and Western Railway Company, and the Santa Clara River Valley Railroad Historical Society.

Historical Organizations Today

There are many active individuals and organizations that are keeping Ventura County and the Santa Clara River Valley's history alive today. There are historical museums to visit in Santa Paula, Fillmore, Ventura and Piru, as well as numerous landmarks and points of interest throughout the County. The Saint Francis Dam Victim's Memorial Committee is one example of a group with common interest in establishing a trail as a means of showcasing interpretive markers illustrating "moments in time" relating to the St. Francis Dam catastrophe in 1928. Hero monu-


Trinity Episcopal Church, Fillmore


Santa Paula Union High School, Santa Paula

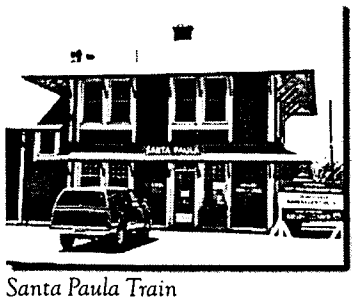
ments are already planned and funded in three locations along the Branch Line (Santa Paula, Fillmore and Camulos Ranch).

Heritage Valley Concept

The organized efforts of the Heritage Valley group are a means of harnessing regional energies to promote the concept of Heritage Tourism for the Santa Clara River Valley. Historical groups and clubs had long been existent within the valley communities, and still are today, but the Heritage Valley efforts transcend the individual focus of each community and embrace the valley's history as an economic asset as well as a cultural one. The existence of a singular trail connecting


Little Red Schoolhouse


Fillmore City Hall


Santa Paula Train

each of these communities is fitting of the symbolism behind the Heritage Valley theme.

VCTC Purchase of the Railroad Corridor

The Ventura County Transportation Commission (VCTC) purchased the *Santa Paula Branch Line* in 1995 with the active cooperation of the County of Ventura, and the Cities of Fillmore, Santa Paula and San Buenaventura. Because the corridor was purchased with a combination of federal and local funding sources, the five agencies along the corridor executed agreements for the funding structure of the right of way acquisition along with preliminary guidelines for its future management and operations.

In matters of management and operations on the rail corridor, an overseeing entity was formed to advise the full VCTC Commission. That group is known as *the Santa Paula Branch Line Advisory Committee* (or SPBLAC), and their recommendations to the Commission carry authority which is reflective of the original partnership between the communities that made the acquisition of the rail corridor possible in the first place.

In 1996, the VCTC completed the *Santa Paula Branch Line Master Plan* which formally established the framework of policies, procedures and standards for the management and operation of the Santa Paula Branch Line Rail corridor. That document also set the goal for the expanded use of the rail corridor for recreational trail use, along with continued and expanded rail services, and is the impetus behind the preparation of this Master Trail Plan document.

Other Trails and Connections

Recreation trail in Santa Clarita

Santa Clarita:
The eastern terminus for the Branch Line trail is located east of Piru, within 2 miles of the Los Angeles County line. About 10 miles east of the Ventura County/Los Angeles County line is the City of Santa Clarita with over 150,000 residents, and steadily growing. The unincorporated area between the City of Santa Clarita and Ventura County is currently owned by the Newhall Land and Farming Company who have proposed a large planned community via the Newhall Ranch Specific Plan. If that Specific Plan is developed as proposed, there would be a new community of approximately 70,000 residents between Piru and Santa Clarita. The Specific Plan also provides a dedicated corridor for rail and trail purposes across the entire project area roughly parallel to Route 126.

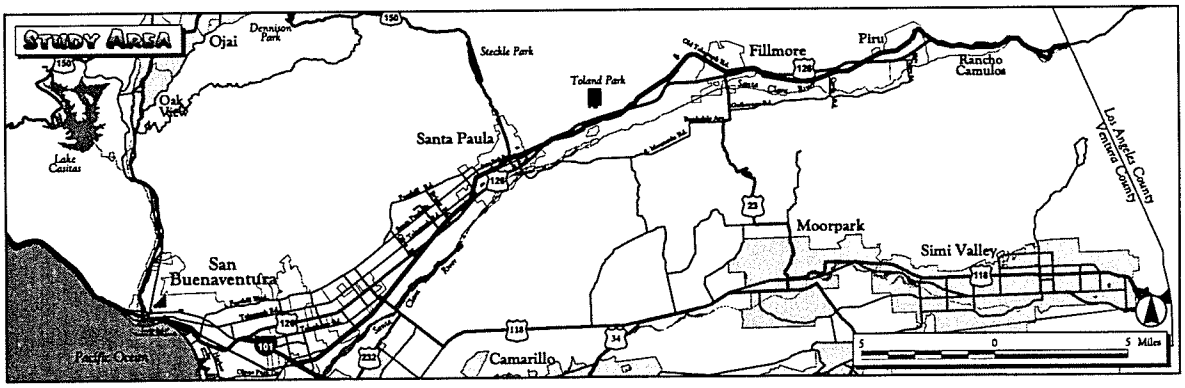
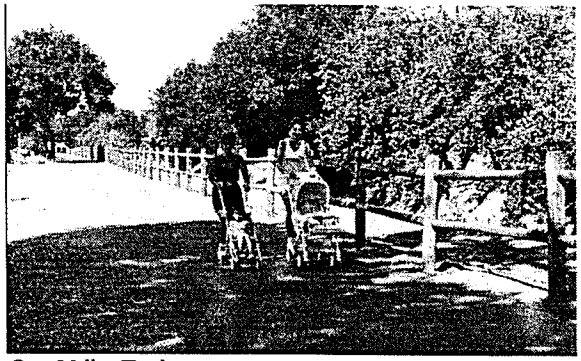


Figure 4. Connections to Other Destinations

The City of Santa Clarita has completed a comprehensive planning process for a 6.5 mile pedestrian, bicycle and equestrian trail that is being installed in eight segments. Three segments have been completed, with other portions already designed and funded. The planning efforts on the Newhall Land and Farming property between Ventura County and Santa Clarita provide a unique opportunity to provide for a continuous trail connection from Santa Clarita to the coast via the Santa Paula Branch Line Corridor.


Ojai Valley Trail

Coast:
The planned terminus at the western end of the Branch Line trail is near the Montalvo spur, at the existing Harmon Barranca Trail. The California Coastal Pathway system and the Ojai Valley trail are examples of regional trails that are located to the west and northwest of the planned Branch Line trail. The closest connection of this trail to an existing regional trail is the Omer Rains Trail near the Ventura Harbor. While a Class I connection (separated from vehicular travel) is not foreseen in the near future, connection to the Omer Rains Trail is envisioned through a series of Class II routes already existent in the City of San Buenaventura's bikeway plan.

The Santa Paula Branch Line Trail, once implemented in its 32-mile entirety, will provide the key means of connecting the City of Santa Clarita with the Coast.

Connections to Other Local Destinations:
The trail will provide the opportunity for further connection to various local community facilities such as schools, parks and historic places of interest. Examples of key connections include the historic depot sites in Saticoy, Santa Paula, and Piru, the central plaza in Fillmore, and the historic Rancho Camulos site and existing and future bike trails in The City of San Buenaventura.

Relationship to Other Plans and Policies

Information used in this Project Study Report includes existing general plans, circulation elements, master plans, specific plans, parks and recreation plans, bikeway master plans, rail service plans, environmental documents, demographic and land use data, traffic volumes, and other reports and plans. A summary of each of those plans is presented in the appendices of this document.

The rail corridor is identified on all existing zoning ordinances as either a transportation corridor or agriculture use areas, which presents no obstacle for the development of a multi-use trail such as the Santa Paula Branch Line Rail-Trail.

The need to fit within the framework of these guiding documents is taken into consideration in the creation of this plan. Where local ordinances and codes would not address the specific design and development standards for trail facilities, this document will function as a means to bridge that gap and become the appropriate implementation tool for their community's implementation of a regional transportation effort.

Summary of VCTC Rail Service Plans for the Santa Paula Branch Line

Existing Rail Services

There are at present no commuter rail passenger services operated on the Santa Paula Branch Line. Current passenger services along the Santa Paula Branch Line are limited to excursion rail services operating between the cities of Fillmore and Santa Paula, consisting of weekend and special event trains as well as film production trains using historic locomotives and passenger coaches in the area's "old west" setting.

Other services include a catered barbecue with a western theme, a Murder Mystery train a la the Orient Express, and a "Hollywood Express" excursion featuring a vintage 1920s Pullman car and an interactive musical and theatrical revue in the Vaudevillian tradition. This all transpires along some 9.8 miles of track between Fillmore and Santa Paula, and is part of established goals within these two cities, as well as the unincorporated community of Piru, to redevelop the areas around the train depots to enhance the tourist experience and encourage greater use of the excursion services.

Future Rail Services

The goal of expanding excursion rail services within the Santa Paula Branch Line rail corridor is geared not only toward greater service between Fillmore and Santa Paula, but also new services along the other segments of the branch line. In this context, VCTC and other corridor agencies are planning and executing improvements to the historic train depots along the corridor; upgrading segments of the line with an eye to eventual commuter services at some point in the future; reconstructing the defunct segment between Piru and Rancho Camulos; and developing a shared use concept which allows excursion services to operate on segments of the line that also serve freight rail activities.

The envisioned Rail Trail is well within the scope of these goals.

VCTC has completed and is planning a number of improvements to the existing railroad including the upgrade of the Fillmore-to-Piru and Santa Paula-to-Montalvo segments of track to FRA Class 1 (the minimum level for passenger services) standards. Work over the past two years has led to the Montalvo - Santa Paula segment being upgraded to Class 1 standards; VCTC plans on completing work in 1999 to bring the Fillmore - Piru segment to Class 1 standards.

Eventually, VCTC envisions linking the Santa Paula Branch Line with Santa Clarita (in neighboring Los Angeles County to the east), thereby reinstating "the only east-west/coast-to-valley rail line between the Los Angeles and San Francisco areas. As such, the line could serve as an alternate route for intercity services, and as part of the Metrolink commuter rail system."

3.0 Need and Purpose

Except for segments within the City of Fillmore, there are no Class I trail/bike facilities existing within the rail corridor at this time. In most cases, bicyclists and pedestrians in the valley must share their travel routes with automobiles. The lack of Class I bike and trail facilities raises concerns over public safety, while population growth projected for the valley indicates that a Class I trail would be well used. These, and other trail need factors, are described further in this chapter.

Future Trail Users

Based on the demographic indicators for the Santa Clara River Valley and statistics available for trails already in place, several user groups are expected on the trail. Each user group has specific needs which will directly affect the planning and design of the Santa Paula Branch Line Rail Trail . For example, most pedestrians prefer to walk on a softer surface on a meandering, shaded trail. Most bicyclists prefer to ride on a firmer surface with fewer curves, while roller skaters require a hard asphalt or concrete surface.

Commuters

Commuters will consist of employed adults, adult students, and school children. Adult commuters are typically seasoned bicyclists and walkers, who can move at above average speeds and maneuver across busy arterials. Often these commuters prefer to ride on-street rather than on a bike path: the Santa Paula Branch Line Rail Trail should be designed to be attractive to both the casual and serious bicyclist. School children will be slower moving and less adept at crossing busy streets, meaning that new street and rail grade crossings must be designed with them in mind. Access points from the trail to schools, neighborhoods, employment centers, and multi-modal stations must also be provided for the trail to serve as an effective commuter corridor.


Commuter Bicyclist

Recreation/Sports Enthusiasts

The Santa Paula Branch Line Rail Trail will attract a significant number of users who simply desire a linear corridor for exercise and recreation. This includes pedestrians of all ages, club bicyclists, long distance bicyclists, people walking their dogs, roller skaters/bladers, joggers, to name a few. All of these groups have unique characteristics, many of which conflict with one another. For example, experienced bicyclists may be traveling at speeds in excess of 20 mph. Roller skaters/bladers often consume the entire trail width as part of their skating motion. Families and pets often travel in the wrong direction, stand in the middle of the path, or other-

wise obstruct through traffic. Joggers typically prefer the unpaved shoulder to run on rather than asphalt. Benches, drinking fountains, signing, and waste receptacles are just a few of the items typically required for recreational and commuter trail users alike. Because of this multiplicity of needs, the Santa Paula Branch Line Rail Trail should be designed to separate different user groups as much as possible on either a wider paved surface or separated paved and unpaved facilities.

Recreational Bicyclist

Destinations

The Santa Paula Branch Line Rail Trail will directly or indirectly serve virtually all of the regional and local destinations along the corridor. Because of its inherent east/west orientation through the valley, the corridor acts somewhat like a "spine" for other connecting streets and trails that then access local destinations.

Since one of the main goals in the planning efforts for the trail is to stay within the rail corridor, there have not been many destination and attraction points off of the corridor identified for trail connection. There has, however, been a pointed effort to assure the trail would be placed on the appropriate side of the rail line to access key features and locations along the corridor. The historic Train Depots in each community, Sheills Park in Fillmore, and Rancho Camulos in Piru are all examples of key points of interest near the corridor. Most of these key points of interest have been recommended as staging or rest stops along the rail corrridor and are discussed in the Design Chapter of the Trail Plan document.

Traffic Volumes on Adjacent Roadways

The typical Average Daily Traffic (ADT) volume on the major west-east routes parallel to the Santa Paula Branch Line Rail Trail are between 10,000 and 20,000 vehicles per day. As population and jobs continue to expand along the corridor, so will traffic volumes. As shown in Figures 3A and 3B, traffic volumes on west-east roadways adjacent to the corridor are projected to increase.

Bicyclists, pedestrians, and others currently traveling along the corridor have the choice of using roadways such as State Route 126, Telegraph Road, South Mountain Road, Guiberson Road, and Foothill Road. While bike lanes and/or wider curb lanes are provided along some of the route, the roadways present a combination of high traffic volumes, higher speeds, and interruptions from driveways, parked vehicles, and intersecting roadways. Most roadways are adequate for experienced bicyclists; however, less experienced bicyclists, the young, the elderly, and families, are likely to be intimidated by these conditions.

Pedestrian facilities such as sidewalks or rail trails for walkers, joggers, and others are highly

inconsistent on existing valley west-east roadways. Outside of downtown areas, pedestrians are typically forced to walk on shoulders and cross the roadway at unprotected crossings.

Accident Summary

Accident histories are relevant to the Santa Paula Branch Line Rail Trail in that they may indicate higher than average accident rates for some cities which could make the Rail Trail a useful method of separating vehicles and walkers/bicycles.

Information on accidents are recorded by local jurisdictions and the California Highway Patrol, with data from most accident reports being filed into the statewide record keeping system (SWTRS). Bicycle and pedestrian accidents are typically recorded only when they involve serious injury or involve motor vehicles. As such, bicycle and pedestrian accident records are usually under-reported and subject to the level of enforcement from city to city.

A review of bicycle related accidents in Fillmore between 1992 and 1995 showed a high number along the routes parallel to the Rail Trail (First Street, North Highway 126, and South Highway 126), accounting for 25% of all reported bicycle-related accidents in the City. These figures indicate a combination of bicycling activity with higher traffic volumes and turning movements. The Santa Paula Branch Line Rail Trail would remove bicyclists from conflicts at many of the intersections in this corridor.

The trail design proposes to utilize smooth, defined travel-ways along with adequate set backs from the rail line, and fence separations where necessary to improve safety along the rail corridor.

Population and Employment Growth Forecasts for the County

By assessing existing and projected population figures for the County and individual Cities, along with employment figures, it is possible generate ridership (trail user) projections for the trail.

The project study area includes the Cities of San Buenaventura, Santa Paula, Fillmore, and the unincorporated areas of Piru, Saticoy and Montalvo. Total population of these communities was over 136,000 in 1994, projected to increase to almost 170,000 by 2010 (Source: U.S. Census).

Population and Employment Growth Forecasts

Jurisdiction	Population Growth Forecast		Employment Growth Forecast	
	1994	2010	1994	2010
Ventura	94,500	107,400	61,500	79,200
Santa Paula	25,900	34,400	9,350	11,600
Fillmore	12,900	16,000	3,120	7,350
Piru and unincorp-orated areas	1,900	2,400	384	483
Ventura County	693,300	844,000	313,000	426,700

Figure 5. Population and Employment Growth Forcasts.

Ventura County's 1994 population of 693,300 is expected to increase by 22% to 844,000 by 2010, as shown in Table 1. The Santa Paula Branch Line area, including the corridor cities of Ventura, Santa Paula, Fillmore, and the unincorporated communities, including Piru, make up approximately 19.5% of the County's population. The City of Ventura, the largest city in the corridor area, makes up about 14% of the population. These four communities, as was Ventura County as a whole, were found in the 1990 census to have the greatest percentage of bicycle trips in the Southern California region.

Given the scenic beauty of the corridor, warm climate, and projected growth in both population and employment, there is a great potential for even higher bicycling rates in Ventura County and the Santa Clara River Valley.

Projected Trail Use

Who is expected to Use the Trail

The proposed Santa Paula Branch Line Rail Trail will be designed for multiple-use recreation and commuting. The major uses that are anticipated include bicycling, walking, running, and roller skating/blading.

Other activities will undoubtedly occur with new trends and activities. Along with the types of uses, the demand or total numbers of all recreational users can be expected to increase. The amount of recreational activities in Ventura County has increased steadily with the growth in population and interest in bicycling, walking, roller blading, and jogging. This trend is expected

to continue.
In order to estimate the number of future recreational trail users, several assumptions must be made about the potential users and the Santa Paula Branch Line Rail Trail itself which include the following:

- Peak season assumed to be 210 days long (off-season assumed to be 155 days long).
- Off-season usage assumed to be 25% of peak season.
- Overall weekday use is assumed to be 25% of weekend or holiday use.
- A ratio of pedestrians to bicyclists is assumed to be 3:2.
- A range of age use for the trail system is assumed.

Age groups utilizing the Santa Paula Branch Line Rail Trail are assumed to be: *

- Under 15 years 20%
- 16 - 25 15%
- 26 - 35 20%
- 36 - 45 22%
- 46 - 55 12%
- 56 and over 11%

Assumptions on the characteristics of trail users include the following:

- 70% of the trail demand will be derived from the local community.
- 90% of the trail users will arrive on foot, by bicycle, bus, or train.
- 10% of the trail users will drive specifically to use the Santa Paula Branch Line Rail Trail.
- Average round trip walking distance is assumed to be 1 mile.
- Average round trip bicycling distance is assumed to be 5 miles.
- The number of average annual trips per capita in Ventura County is assumed to be 1.0.

** Source: President's Commission on American Outdoors*

Projected Trail Use
The Santa Paula Branch Line Rail Trail has the advantage of incorporating routes and usage patterns that already exist along the corridor. The corridor along the State Route 126 is already

fairly well-traveled by bicyclists and others, and is estimated to generate a substantial number of destination trips. Current use is dominated by people from the immediate vicinity and Ventura County in general, although it is likely that, once completed to Santa Clarita, the Santa Paula Branch Line Rail Trail will attract visitors from outside the region. For example, residents of Santa Barbara and Los Angeles Counties could use the existing excursion line to access the trail for day trips.

Based on the previously noted assumptions of who will use the trail, an estimated total of annual usage once the trail is complete is approximately 600,000 recreational users and approximately 110,000 commuters, mostly school children.

The recreational projections were based on comparisons of the completed Santa Paula Branch Line Trail with other comparable trails in California and throughout the United States, along with local and regional population, and the length and relative quality of the trail. For example, a 1990 user survey of the Ojai Valley Trail estimated approximately 330,000 persons per year use the trail.

Commuter usage projections were based on the existing and future bicycle commute mode split by adults in the communities directly served by the trail, factored by 30% who are assumed to use the trail at some point in their commute. In addition to the adult commuters, the projection includes the estimation of about 20% of school children ages 8-15 in the adjacent communities would use the trail as well.

Where the Heaviest Use Will Occur

The Trail passes through urbanized areas that are separated by long stretches of rural sparsely populated segments. Because the trail will be connecting noncontiguous communities, its pattern of use will be different than other multi-use trails that serve connected communities.

Most trail users will be on the trail for relatively short distances when in the urban areas. Additionally, trail usage is fragmented by time, with recreational users concentrated on the weekends and summer season while commuters are typically concentrated on the weekday mornings and afternoons. The number of trail users passing any given point will vary dramatically.

Use near and within the cities is expected to be heavy with people using the Santa Paula Branch Line Rail Trail to reach destination points within those respective communities. That is to say, that the urban areas are expected to be the most heavily traveled. Community users would include those accessing schools, parks, local attractions, major employers and transit hubs.

The trail hub in Santa Paula is projected to experience the highest level of use. For example, on a summer weekend at any given point on the trail in Santa Paula, trail usage is projected to be about 740 persons per day (or about 180 persons per peak hour). In comparison, peak summer usage in Fillmore is projected to be about 370 persons per day (or about 90 persons per peak hour).

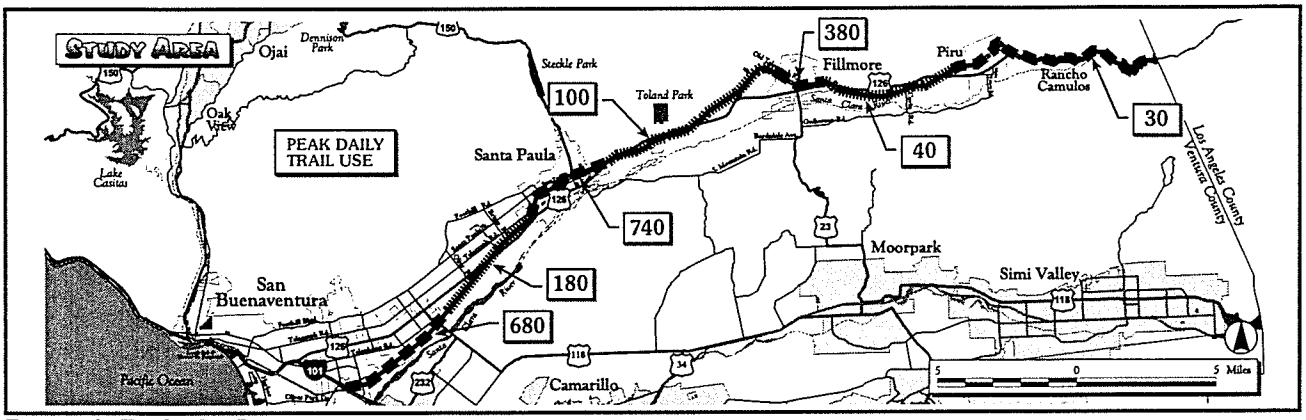


Figure 6. Trail Use Projections

Conversely, trail use in the rural, agricultural aeas will be limited to longer trips by those travelling between communities or from rural residences / jobs to urban areas. They represent a substantially smaller group of users when compared to the urban users.

It is expected that many residents, such as agricultural workers who currently drive or bicycle to work and students who ride to school along surface streets, will now choose to ride or walk using the Santa Paula Branch Line Rail Trail. In many areas, the trail will be used by both local residents and longer distance walkers and riders. However, use of the trail through the rural segments is expected to be far less than within the urban areas, as illustrated in Figure 6.

Economic Impact

Multi-use trails have been shown to have a positive economic impact on the communities they serve. The economic benefits can be both direct and indirect. The direct economic benefits derive from people coming into the community to use the Santa Paula Branch Line Rail Trail and the spending which occurs during their visit. The indirect economic benefit results from the Santa Paula Branch Line Rail Trail adding to the quality of life in the community, including improving property values near the facility. Greater quality of life results in the community being a more desirable place for people and companies to relocate to.

Recreational activities can generate a substantial net benefit to the community. This results largely from the spending that takes place for food, fuel, and clothing. It is a function not only of the type of visit, but also the duration of the visit. Research has shown that residents of the area will also spend money associated with the recreational activities they pursue.

Using the assumption that 70% of recreational users will come from the local community, projections of new spending associated with the Santa Paula Branch Line Rail Trail can be made. Trail users spend an average of about $14/per capita, meaning that the 180,000 non-local recreational trail users will bring an estimated $2.5 million into the valley communities annually.

Recognized in this equation of economic benefit within the valley, is the need to minimize adverse impacts on already operating businesses along the corridor. The contribution of existing businesses to the economy is significant. The design and alignment goals, objectives and standards are focused on creating a harmonious existence with surrounding businesses and properties.

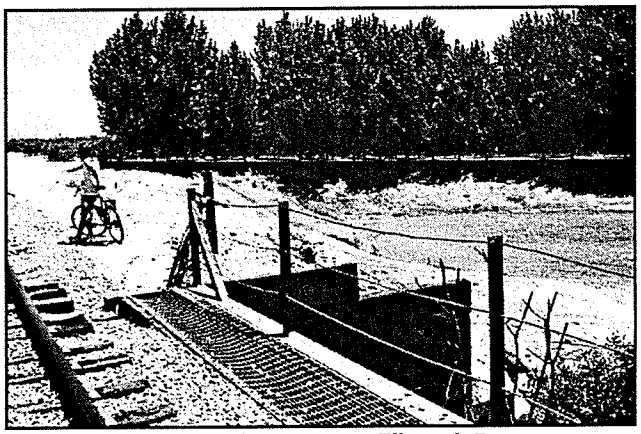
4.0 Project Goals

The vision for the Santa Paula Branch Line Recreational Trail, as expressed in the Executive Summary, is further defined by a set of goals created as a result of the planning process. In response to the issue identification that occurred early on in the Trail Advisory Committee meetings, the following project goals were established.

- Locate the Trail, wherever possible, within the railroad right of way to organize and manage trail use in the corridor and to provide an alternative to using heavily traveled parallel roadways.
- Provide for a functional facility that serves major and minor destinations, provides a relatively direct west-east connection in the County, and follows routes already used by bicyclists, pedestrians, and others.
- Design and plan for a Trail that will serve both commuter and recreational needs (a Class I bikeway).
- Design and plan for a Trail that will be feasible to implement by considering budget constraints and maximizing the trail's funding potential.
- Build upon and connect to existing and planned trails wherever possible.
- Maximize user safety along the railroad through design and operation techniques.
- Minimize impacts to adjacent property owners by appropriate design and operation of the facility, including fencing, landscaping, and other appropriate improvements.
- Minimize disruption to agricultural operations and properties adjacent to the trail corridor.
- Preserve the ability to provide continued tourist train services and expand commuter rail service in the future.
- Design grade crossings at roadways to maximize trail user safety and maximize convenience, while minimizing negative impacts to traffic capacity.
- Design the facility to meet state and federal standards, including the Americans with Disabilities Act.
- Protect and minimize conflict with environmentally sensitive habitats along the right of way .
- Integrate cultural, historical and educational elements into the trail design.
- Avoid new railroad grade crossings. Utilize existing roadway crossings as much as possible. Construct new grade-separated crossings where needed.

5.0 Existing Conditions (Opportunities and Constraints)

One of the first steps in assessing the feasibility of the trail's alignment and potential design character, is to carefully review the existing physical characteristics of the trail corridor. Features such as topographical conditions, barranca crossings, Highway 126 crossings and land use encroachments into the right of way are just some of the factors that influence the trail's location and design. These physical constraints are factors that help determine whether the trail should be located on the north or south side of the railroad tracks within the right of way, or whether it is feasible at all to place the trail within the right of way for certain stretches.



Existing Physical Trail Characteristics, Ellsworth Barranca

Once the mapping of the corridor was complete, an in depth set of field visits were conducted by the project team to record accurately the existing physical conditions along the rail corridor. The field notes were transferred onto a set of seventeen (17) segment maps that combined information relating to topography, parcel lines, ownership, land use, building and crop locations, and other improvements. All barranca and significant drainage crossings were identified with a series of blue circles, and all public street or highway crossings were identified with a series of red circles. These maps were then used by the Trail Advisory Committee to discuss and confirm the existence and/or severity of the conditions in the field and how those factors translated into a set of design criteria for trail.

Existing Physical Trail Characteristic, Largo Lane Area

A summary of the existing conditions along the rail/trail corridor is provided below, with the seventeen segments referenced by "Study Areas." The delineation of boundaries for the four study areas was a function of better managing the data and workshop discussions.

Area 1 - Ventura/Saticoy

Corridor Map Sheets 1 through 3
Extends from Highway 101 at the west side to Olive Road at the east
Includes Ventura, Saticoy, unincorporated area east of Saticoy

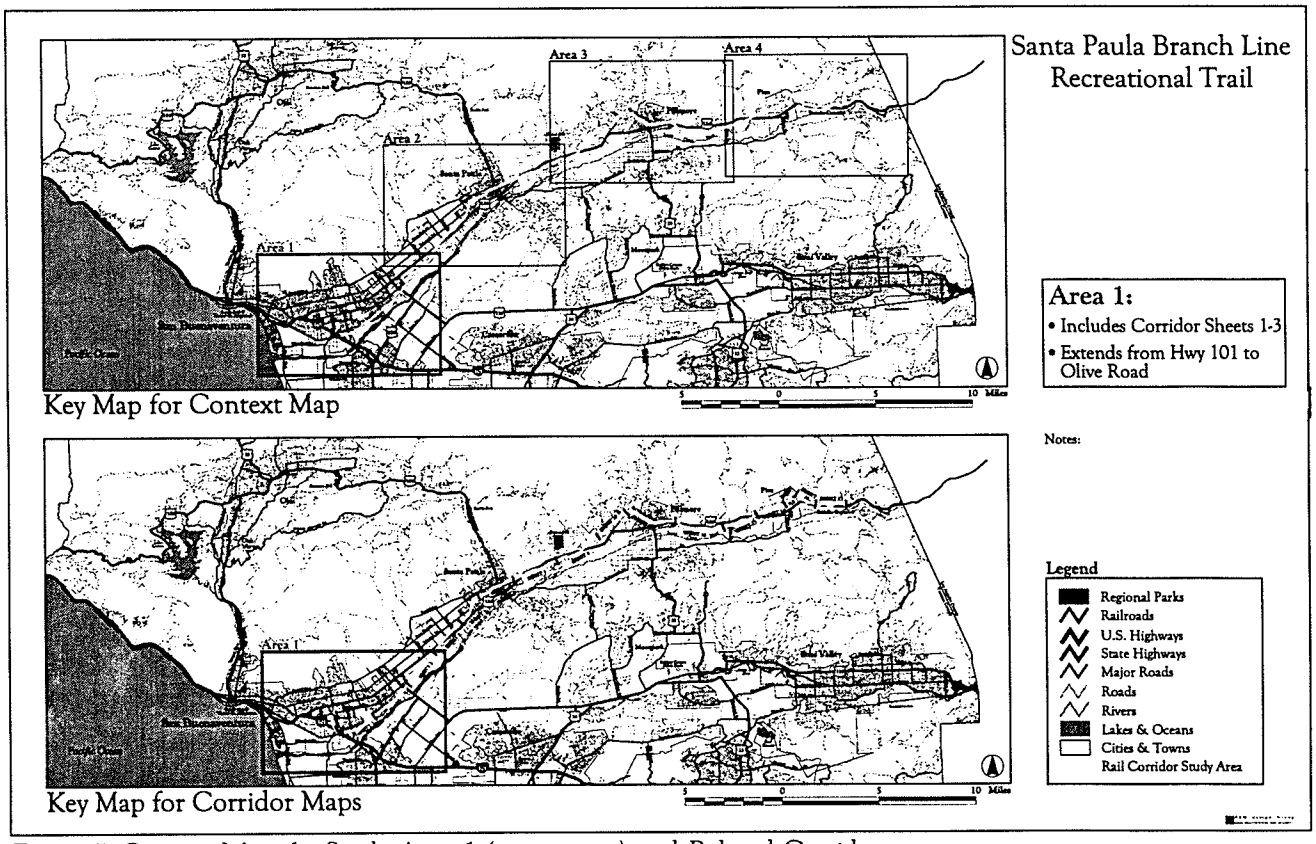


Figure 7. Context Map for Study Area 1 (upper map) and Related Corridor

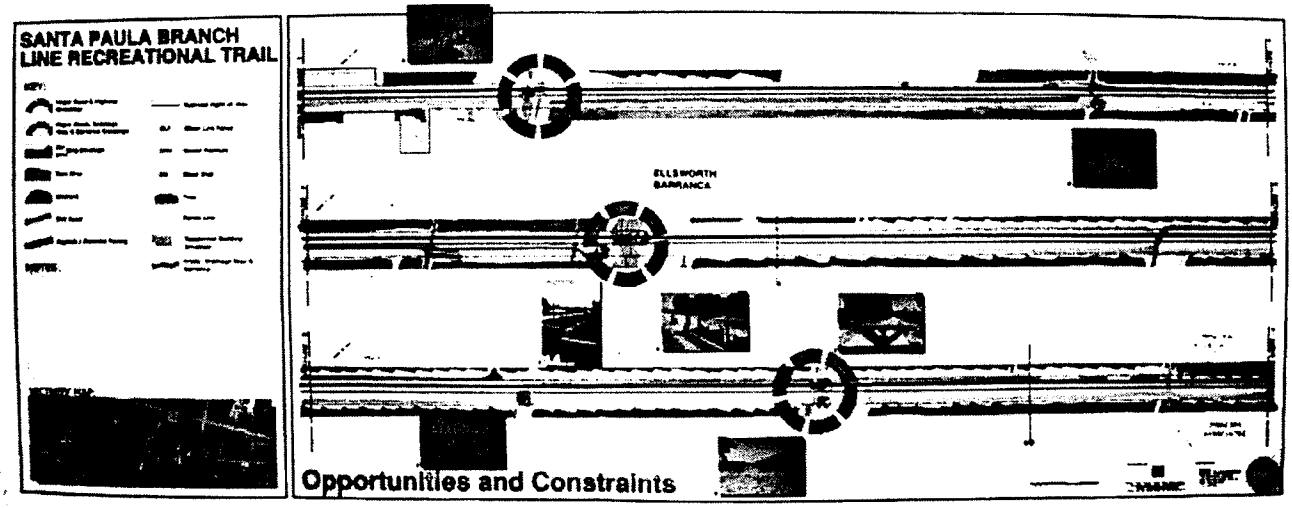


Figure 8. Example of Constraint Map (#3)

Characterization

This segment of the rail/trail corridor is characterized by significant amounts of adjacent residential and commercial development. The area is predominately urbanized, transitioning to agricultural activity at its east end in Saticoy. There have been preliminary discussions of a future Metrolink train station in the Montalvo area, but no location or official plans have been established at this time. There are future plans for the renovation and upgrade of the historic Saticoy Train Depot, located east of Wells Road on the north side of the tracks. There is an extensive existing and planned bikeway system in Ventura and Saticoy which provide opportunities for alternative routes and access to area destinations.

Summary of Opportunities

- Connections to extensive area bikeways including Harmon Barranca trail and Omar Rains Coastal trail, and future connections to the west along the Santa Clara River.
- Surrounding urban area will generate many potential users
- Generally flat terrain with only a few areas where topography is difficult (examples include adjacent to Sunkist plant and at Petit Avenue)
- Existing parallel bikeways to tie into if necessary
- Some existing agricultural areas are zoned residential and may convert to urban uses (near Bristol Rd) which may reduce land use conflict. Example is the Selby property on the south side of tracks where there are current plans for new residential development. The property owner's representatives have filed a letter in support of the trail and would like to design and provide connections to it within their project. Another example is the Wittenberg property on the north side of the right of way, west of Wells Road. The new veteran's facility may provide opportunity for connecting trail system adjacent to the Brown Barranca.
- Bristol road parallels the ROW and may provide an alternative bikeway/trail location
- Many access points to the ROW from adjacent streets and residential areas
- Generally there are few encroachments on ROW (except Sunkist and old town Saticoy)
- Good connection to Saticoy station and expanded VCTC right of way in same area
- Existing walls and barriers in place in many of residential/commercial areas
- The Northbank linear park trail system provides a parallel route to the rail right of way.

Summary of Constraints

- There are approximately 7 major street crossings including: Johnson, Bristol, Montgomery, Wells, Saticoy and Petit
- There are approximately 5 major drainage channel and/or barranca crossings, that may

require crossing structures, alternative route, or special design including Harmon Barranca and Ellsworth Barranca

- Most street crossings are not signalized
- Many points of access to ROW that will need to be controlled
- Encroachment areas at Sunkist and Old town Saticoy
- Potential "hot spots" at Old town Saticoy , Harmon Barranca and Ellsworth Barranca

Area 2 – Santa Paula

Corridor map sheets 4 through 7
Includes Olive Road at the west side to Toland Park at the east
Todd Road area, City of Santa Paula, Orcutt Creek area

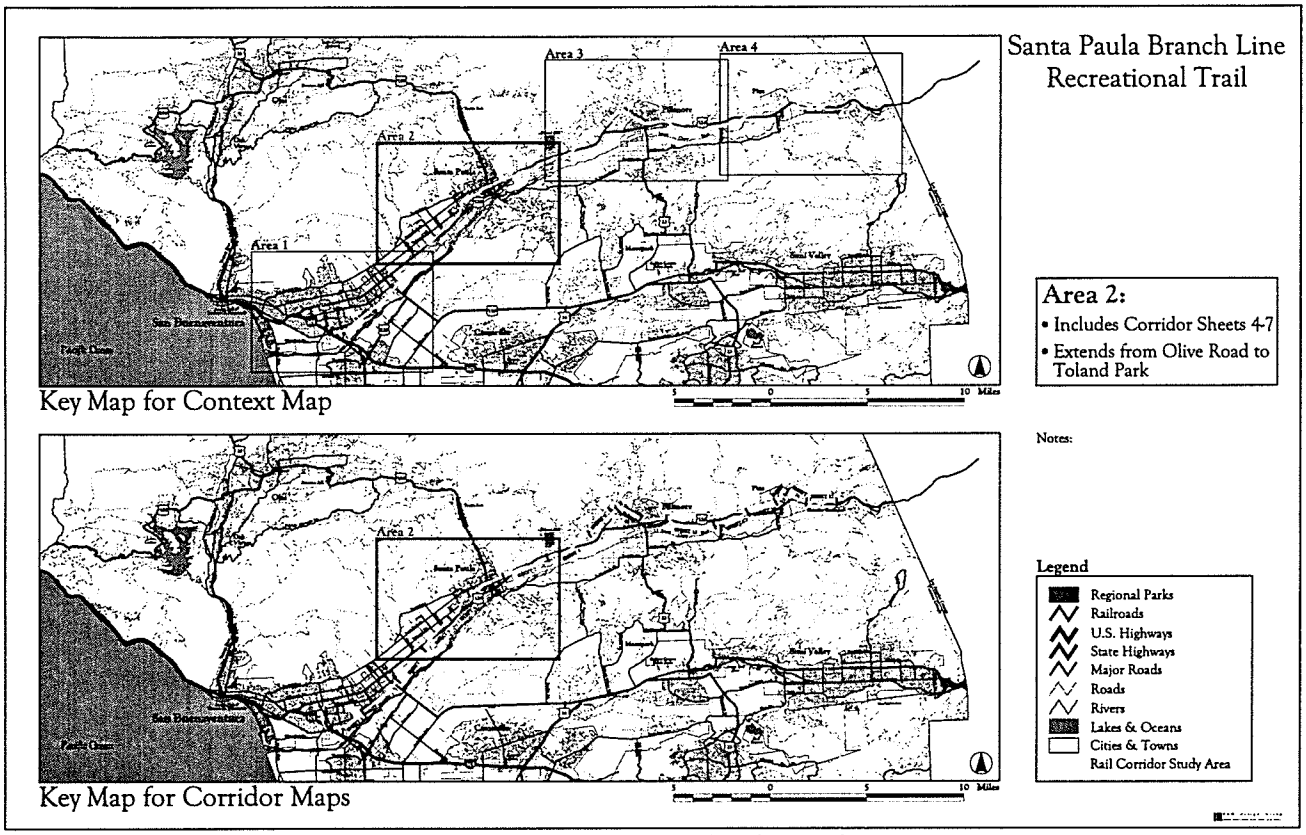


Figure 9. Context Map for Study Area 2 (upper map) and Related Corridor

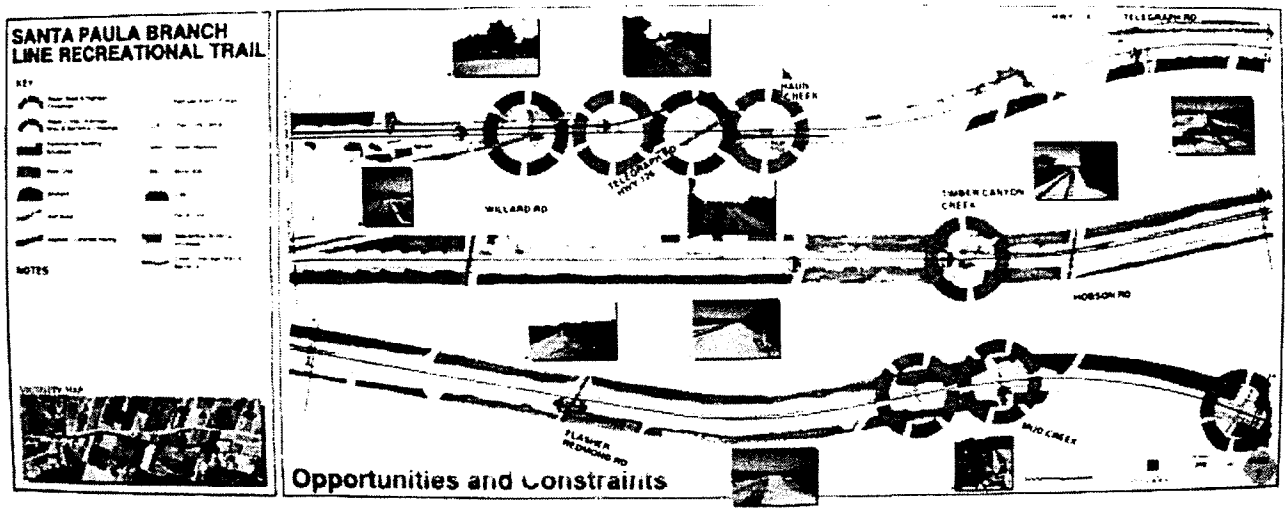


Figure 10. Example of Constraints Map (#7)

Characterization

This area primarily is adjacent to intensive Agricultural use operations to the west and east of Santa Paula. The incorporated city of Santa Paula is located at the center of this segment of the trail corridor, and within the city limits (generally between the intersections with Pec Road and Hallock Drive), the corridor is adjacent to a combination of urbanized commercial and residential uses. This segment includes the historic Santa Paula depot and scenic areas which are part of tourist activities associated with the Fillmore and Western excursion trips, and other historical points of interest.

Summary of Opportunities

- Few points of Access to ROW in Ag areas (less to control)
- Predominately flat terrain with few areas of difficult topography
- Adjacent major streets may offer potential for alternative routes
- In Santa Paula there is a bikeway plan including use of VCTC ROW. Many opportunities for connections to City destinations including: Train depot area, downtown, parks, schools, Santa Paula Creekway and others.
- Opportunities to support local history and character for filming industry, St Francis Dam Memorial and other historical

Summary of Constraints

- Many Points of access to ROW in Santa Paula that need to be controlled
- In Santa Paula there are approximately 15 major street crossings, many are not signalized
- Santa Paula Creek crossing will require a new structure / bridge
- In Ag areas there are approximately 8 major street crossings including two- highway 126 crossings (Undercrossing @ Todd Road area and Hallock Drive Intersection area)
- In Ag areas there are approx. 10 major drainage and/or barranca crossings including Todd Barranca and Haun Creek
- In Santa Paula there are many areas of narrow ROW and encroachment, possible alternative routes/tie into planned bikeway system (e.g. along Main Street)
- In Ag area there are approximately 8 Ag road crossings needing access control
- There are two potential "hot spots": Todd Road/126 area and Haun Creek/126 area
- Filming activities and tourist train use desires fencing to be kept to a minimum

Area 3 - Fillmore

Corridor maps 8 to 12

Toland Park area at the west side to Cavin Road east of Fillmore

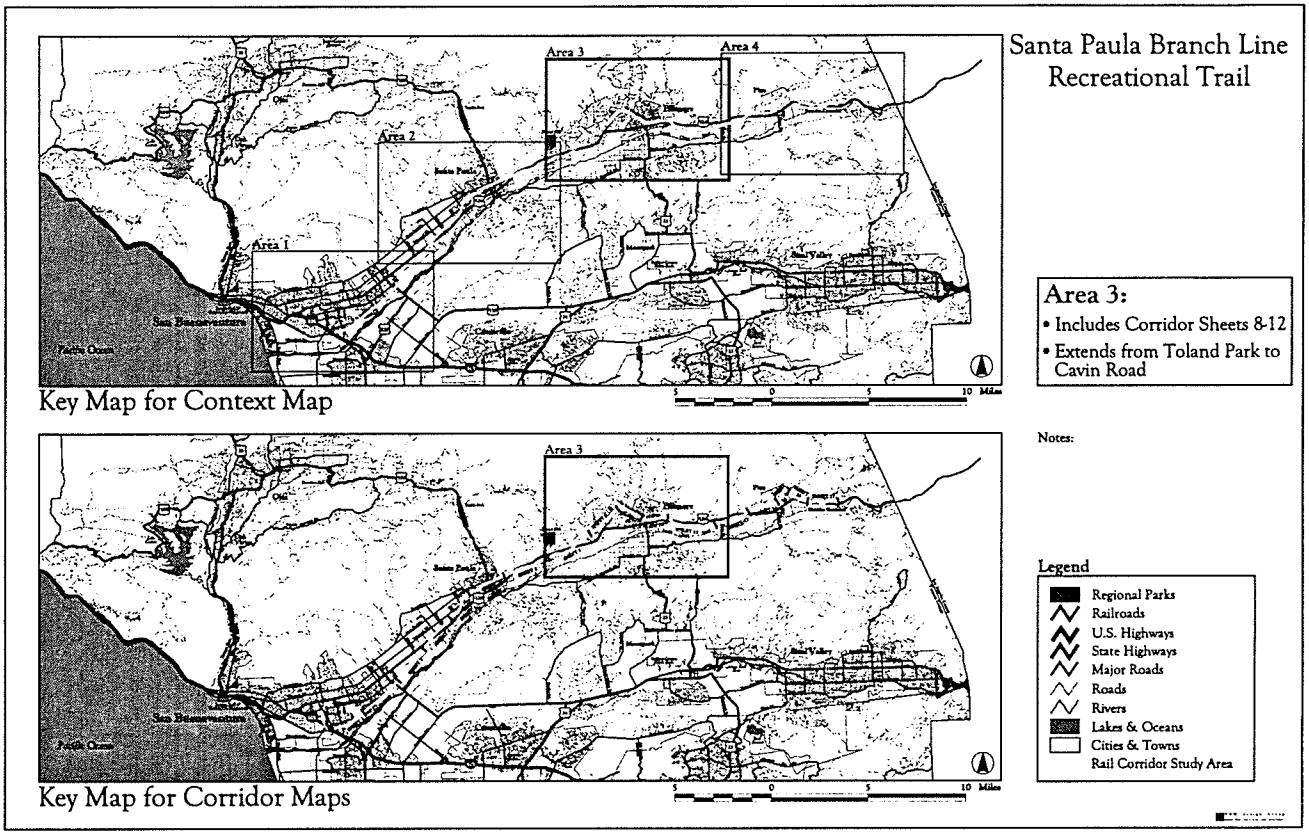


Figure 11. Context Map for Study Area 3 (upper map) and Related Corridor

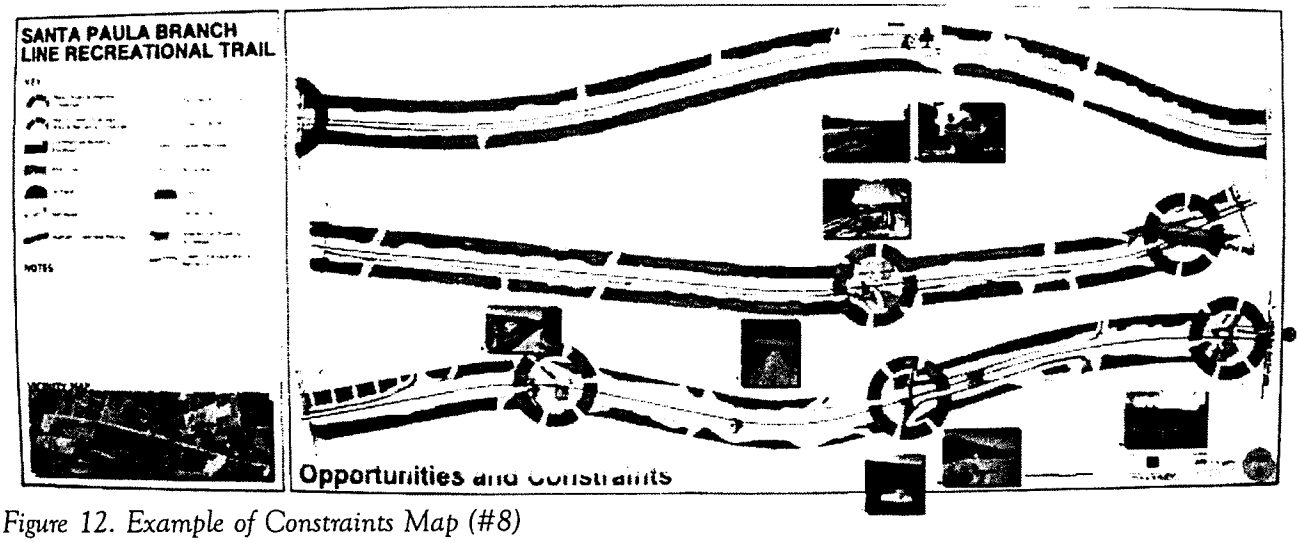


Figure 12. Example of Constraints Map (#8)

Sespe area, City of Fillmore, unincorporated Ag land

Characterization

This segment of corridor is predominately rural in character with intensive agricultural use areas to the west and east of Fillmore. The City of Fillmore is in the center of the study area and within that urbanized area there are primarily residential and Ag industry properties adjacent to the corridor. Within the City boundaries a large portion of the trail has already been constructed (from Shiels Park to Main Street). The City's Central Park includes a train platform and promenade. The promenade is the main boarding location for the Fillmore and Western excursion trains.

Summary of Opportunities

- In Ag areas there are limited points of access to ROW
- In area west of Fillmore Old Telegraph Road is parallel to ROW - could be a possible alternative route
- Existing Ag roads in ROW are both a positive and negative; possibility to be used for trail if circulation needs of Ag users are appropriately addressed (presently used by adjacent farmers)
- Possible Regional connections to: Toland Park, Little Red School House, Fillmore and Western tourist train Depot, Fillmore bikeway system
- In Fillmore there is a well-developed bikeway system including use of VCTC ROW.
- Many opportunities for connections to City destinations including: Train depot area, downtown, parks, schools, and others.
- Opportunities to support local history and character for filming industry, St Francis Dam Memorial and other historical

Summary of Constraints

- In Ag areas there are 2 Highway 126 crossings; 1 west of Fillmore and 1 east of Fillmore. Significant crossing issue
- There are approximately 9 major street crossings, most are not signalized
- There are approximately 10 significant creek, barranca and/or drainage crossings
- There are 3 potential "hot spots": at west Highway 126 crossing, at Sespe Creek crossing and at east Highway 126 crossing. All of these will require special design and potential alternative routes
- There are encroachments from orchards in the 7th street area west of Fillmore
- There are approximately 14 Ag road crossings needing access control
- Areas of overgrown ROW in Cliff Ave area and east Highway 126 crossing area
- Filming activities and tourist train use desires fencing to be kept to a minimum

Area 4 - Piru

Corridor maps 13 - 17
Cavin Road at the west side to the east edge of Camulos Ranch
Unincorporated Ag lands, Community of Piru

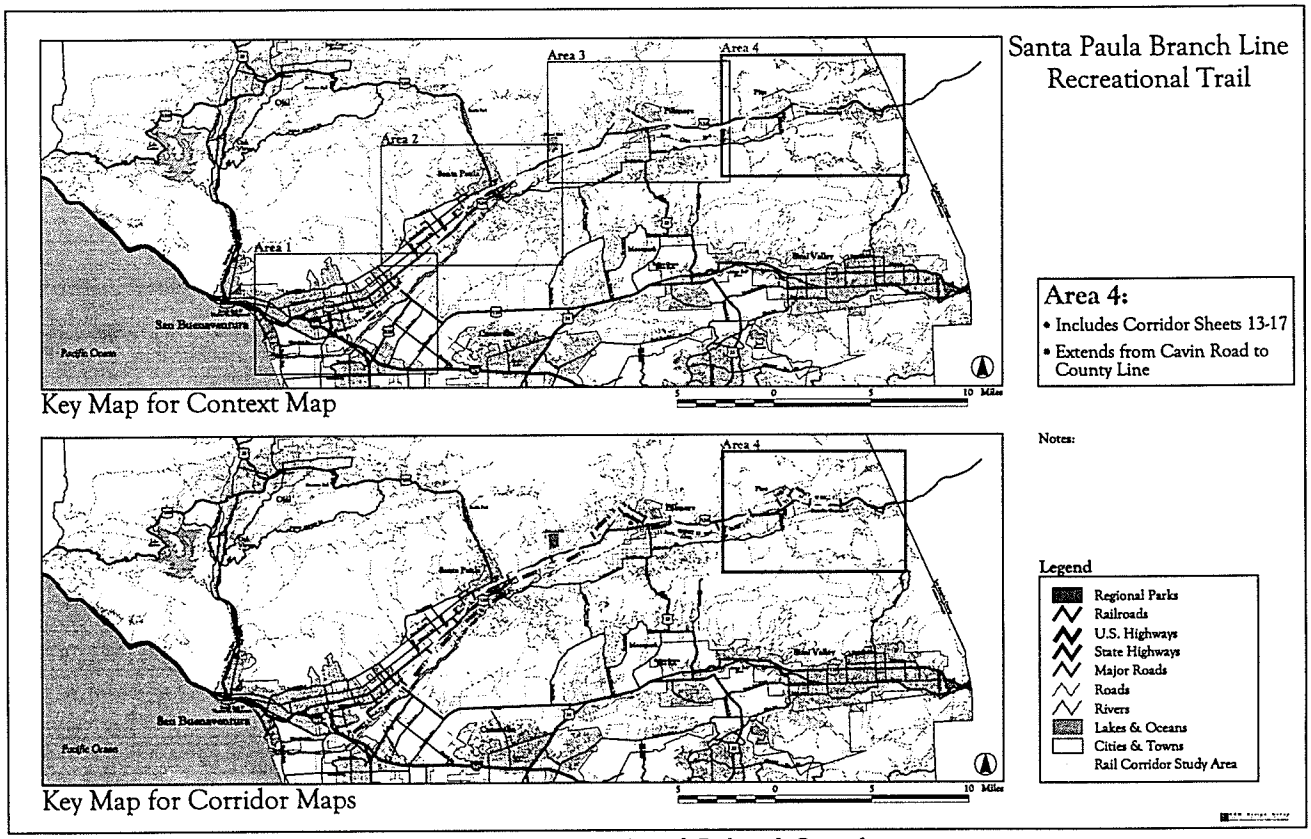


Figure 13. Context Map for Study Area 4 (upper map) and Related Corridor

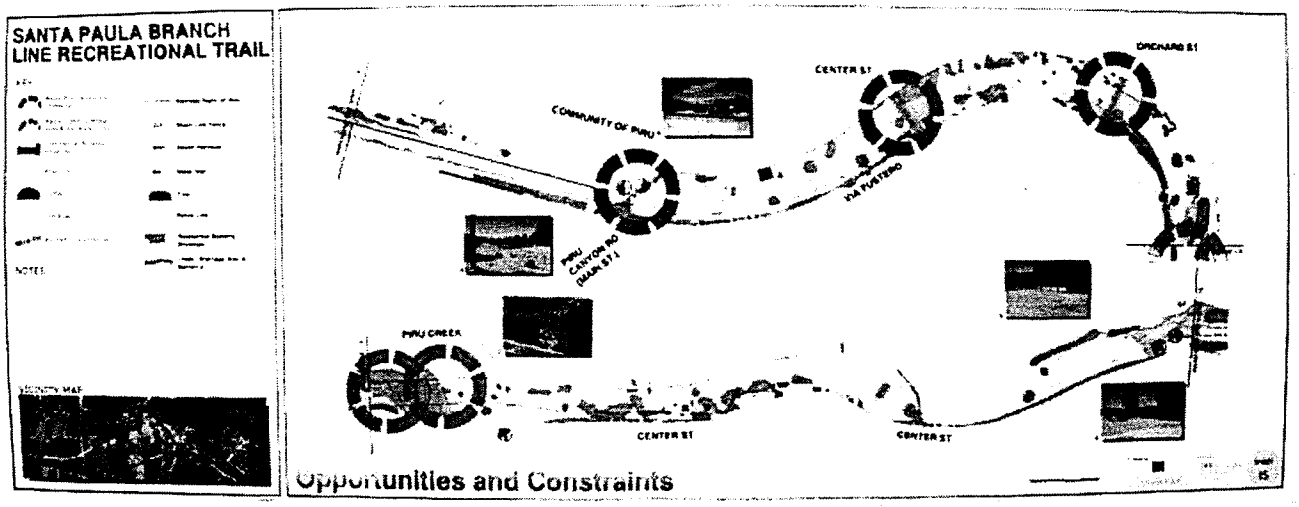


Figure 14. Example of Constraints Map (#15)

Characterization

This segment of the corridor is predominately rural in character with intense agricultural use lands to the west and east of Piru. The community of Piru is in the center of the study area where future enhancement plans include the renovation of the Piru depot. The tracks have been removed from the western edge of Piru (at Main Street) to the end of the study area. Piru Creek bisects the corridor east of Piru and there are scattered homes until the corridor reaches the citrus groves within Camulos Ranch. Rancho Camulos is the terminus of the project study area, with the Newhall Land and Farming Company's property lying beyond and east to the Los Angeles/Ventura County line.

Summary of Opportunities

- Opportunity to tie into and support Piru Community Enhancement Plan
- Possible regional connections to: Rancho Camulos historic site, Lake Piru Recreation area, Piru historic Ag community
- Future connection east to Santa Clarita
- ROW could serve as bike/pedestrian path backbone for future Piru Community bike system, connections to County parks other local destinations
- Opportunities to support local history and character for filming industry, St Francis Dam Memorial, Rancho Camulos and other historical features
- Possible flexibility in any future Rail line location within ROW east of Piru
- In Ag areas there are limited points of access to ROW
- Existing Ag roads in ROW are both and positive and negative, could be used for trail if - Ag circulation needs are appropriately addressed (presently used by adjacent farmers)
- In Ag areas there are limited points of access to ROW

Summary of Constraints

- Many Points of access to ROW in Piru that need to be controlled
- West of Piru there are many areas where orchard encroach into ROW
- East of Piru the ROW is overgrown and topography is extreme
- There are approximately 24 Ag road crossings needing controlled access
- There are approximately 5 major street crossings; many are not signalized and 1 Highway 126 crossing west of Piru.
- There are 2 major creek crossings including Hopper Canyon and Piru Creek and approximately 7 major barranca and/or drainage crossings
- West of Piru there are many drainage ditches running parallel to the ROW

- In Piru there are many areas of narrow ROW and encroachment, especially adjacent to Center Street, potentially explore alternative routes
- There are two potential "hot spots" ; Highway 126 crossing area and Piru Creek Crossing area
- The ROW runs parallel and immediately adjacent the Highway 126 east of Piru

6.0 Planning Issues

Many resources were used in the process of identifying of the planning issues surrounding the trail, with direct input from the public being the prime source of direction. Individuals contacted and offering their input were adjacent property owners, business operators, agricultural business representatives, bicycling and recreation representatives, historical group representatives, train operators, and public agency representatives.

A comprehensive list of potential planning issues were compiled and discussed with the Recreational Trail Advisory Committee, receiving their additional input. The following summaries of issues and concerns, as well as some of the potential solutions, are discussed below.

Impacts on Adjacent Land Uses

There are a wide variety of adjacent land uses to the rail/trail corridor. The corridor is in close proximity to a mix of residential, commercial/industrial and agricultural uses. The character of adjacent lands ranges from urban to rural. Each of these uses has their own set of land use adjacency issues.

Residential: The majority of the adjacent residential areas are within the incorporated boundaries of SanBuenaventura, Santa Paula and Fillmore. There are rural residential parcels scattered along the corridor in the unincorporated County areas, with a greater concentration of those residences being in the Saticoy and Piru areas.

Adjacent Residences with Privacy Wall, East of Petit

In most cases within the urban areas, the residential properties are already separated from the rail corridor by a solid wall or fence. Compatibility issues associated with adjacent residential uses include the need to address noise and privacy needs through fencing, minimizing light impacts to residences, and providing appropriate access onto the trail.

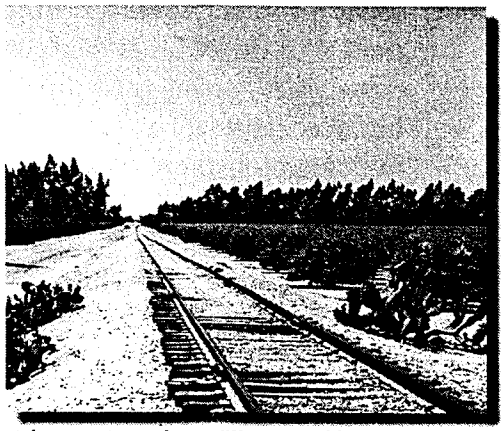
Adjacent Commercial Activities, Santa Paula

Commercial/Industrial: Mostly concentrated in the incorporated city boundaries, there are numerous commercial and industrial operations that back up to rail/trail corridor. Contracting and lumber yards, fruit packing and processing plants, warehouses and miscellaneous retail and service related uses are all among the types of adjacent commercial users. Many of these businesses have fenced their properties, and in some cases encroach within the railroad right of way.

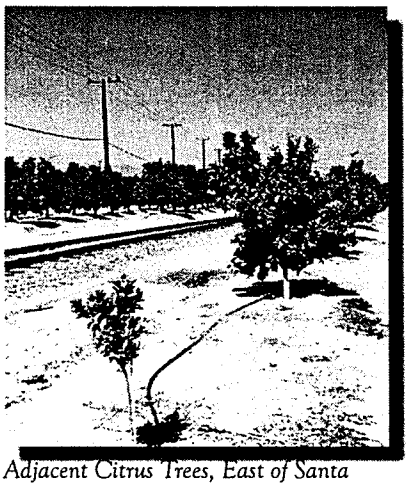
Issues with adjacent commercial users include the need to provide adequate fencing separations to address safety and liability, and to resolve encroachment issues already existing within the right of way.

Agricultural Use Compatibility

The majority of adjacent agricultural land is within the unincorporated county portions of the rail corridor, although there are isolated agricultural parcels within the Saticoy area. Agriculture comprises approximately 75% of the adjacent land use to the rail/trail corridor. Most of the active orchard operations are in citrus and avocados. There are many at-grade road crossings and parallel agricultural roads running adjacent and, in some cases encroaching within, the rail/trail corridor.



Adjacent Agriculture, West of Todd Road



Adjacent Citrus Trees, East of Santa Paula

Agriculture compatibility issues were identified early on in the planning process as being highly important to resolve. In addition to having members of the agricultural community serve on the Trail Advisory Committee, an Agricultural Subcommittee was formed to focus entirely on the set of issues affecting agricultural. This subcommittee included representation from numerous private property owners whose land was in agricultural use, the Farm Bureau, and the Agricultural Commissioner.

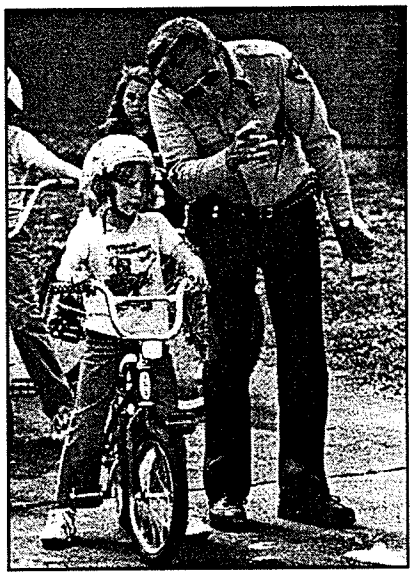
Because of the prominence of the agricultural operations adjacent to the corridor, there is a whole document section dedicated to agricultural issue solutions. However, issues to be resolved include concerns over potential liability, trespass and vandalism, the need to design the trail and fencing so as not to inhibit day-to-day agricultural operations (including adequate equipment and vehicle access, and the ability to continue pesticide applications). The technical appendices include written input received early in the process outlining agricultural operation concerns.

Public Safety

Crime Prevention: Adequate provision of trail safety measures for both users on the trail and for adjacent private properties is a concern that affects the whole length of the corridor. Crime prevention and safety patrol for all segments of the trail is a topic to be addressed through a combination of physical design and on-going operational provisions.

Standard design methods to address safety include providing for access to the trail by law enforcement and emergency vehicles, but excluding other vehicles, and installing emergency call boxes

at regular intervals along the trail. Standard operational measures to maintain public safety include the appropriate provision of security personnel patrols, and "adopt a trail" programs which include volunteer patrols.


Trail Safety

In addition to the standard design measures normally implemented with recreational trails already proven in their effectiveness, this trail plan includes the concept of "smart trail" design. Measures included in providing for a "smart trail" are design features such as surveillance cameras, motion detectors, automated gates to aid in crossings and trail closures, information kiosks at regular intervals with traveler information about closures and safety related facts. Utilizing this kind of technology in the trail design will not only supplement trail safety, but could play a significant role in reducing the need in public safety personnel staffing in on-going trail operations.


Existing Rail-Trail with Train

Rail Operations Compatibility: The need to provide a safe path of travel for users of the trail while maintaining the ability for rail line use and expansion in the future will need to be addressed. Design measures such as adequate setbacks of the trail from the rail line (consistent with federal standards), barriers/fence separations when necessary, and appropriate signing and demarcation of crossings will all be utilized.

Street and Highway Crossings: The rail/trail corridor is bisected many times by both public and private road crossings. These intersections pose a safety threat to trail users unless they are appropriately identified through signing and physical design remedies. Demarcation striping, warning signs and physical barriers (chicanes) to slow on-coming bicycle traffic at these intersections are examples of design methods that can be used. The trail plan contains standardized, or typical, design minimums for handling crossings, and where special or unique circumstances apply, the plan contains problem-specific solutions.

In some cases, such as where the rail/trail corridor crosses State Route 126, a grade-separated crossing (an elevated bridge-like structure above the highway) will be necessary. These grade-separated crossings are identified within the Trail Plan.

User Accommodations

For trail users there is a range of services that will need to be accommodated. Meeting these user needs will not only contribute to the comfort and enjoyment of the user's trail experience, but will help in reducing conflicts with surrounding properties if services were inadequate.

Staging Areas: Some of the services to be provided for in the physical design of the trail are staging areas where users can park their vehicles and access the trail. The staging areas would be equipped with services such as restrooms, drinking water, bike racks, telephones, directory signs, information system kiosks (tied into the "smart trail" concept), interpretative and historical reference information, trash receptacles, and picnic and eating areas.

Trail Services: Once on the trail, users will need the opportunity to obtain basic services to a lesser degree than the staging areas. Informal stops would be designed to be less extensive in their range of user services. They might include amenities such as drinking water, trash receptacles, seating areas, and interpretative information.

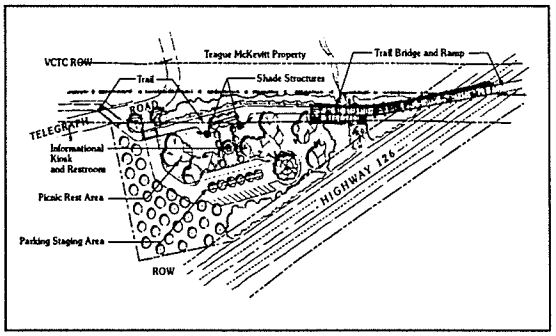


Figure 15. Rest Stop

Typical design standards and listing of user amenities for staging areas iscontained in the Chapter on Trail Design. The location of staging areas are identified in both the Trail Alignment and Trail Design Chapters.

Cultural and Historical Perspective Observed

Development of a trail along the rail road corridor which further connects the communities along its course, provides a unique opportunity to tie in the rich cultural and economic history of the Santa Clara River Valley. There are many active historical societies and groups who put forth their energies to promote the stories and factual accounts of families, events, and disasters that formed the character and physical features of the communities today.

To take advantage of the trail as an educational and interpretive venue for historical events, design features will be included along the trail corridor that will heighten trail user awareness of the history and of their surroundings. These features could include historical landmark identification (on and off the trail), self-guided tour pamphlets, identifying markers which could illustrate "moments in time" of the St. Francis Dam tragedy, and incorporating appropriate locations to accommodate historical monuments already planned and designed. Also, through respecting the adopted guidelines of each community, where design goals are already based in their own individual history, the trail design should then appropriately respect the history of those communities.

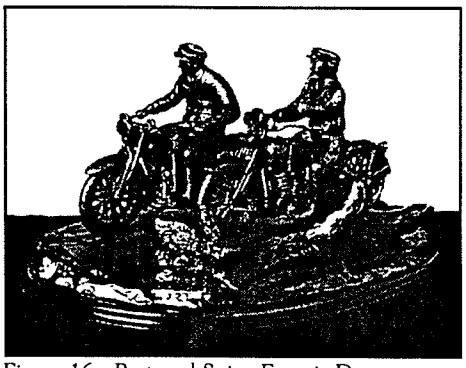
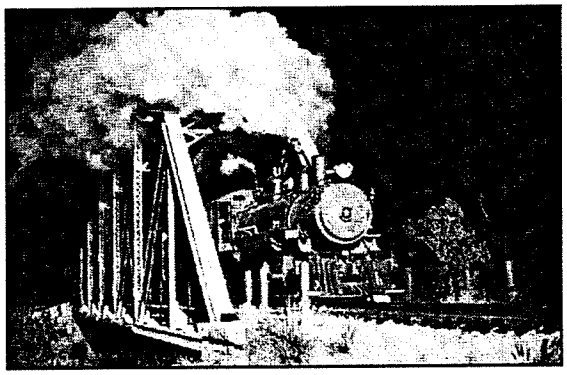


Figure 16. Proposed Saint Francis Dam Monument @ 10th & Santa Barbara Streets in Santa Paula.

Filming and Excursion Trains in the Valley

Excursion trains currently run between Fillmore and Santa Paula, providing the public with the opportunity to see the beauty of the valley from the rail corridor, in the comfort of historic rail

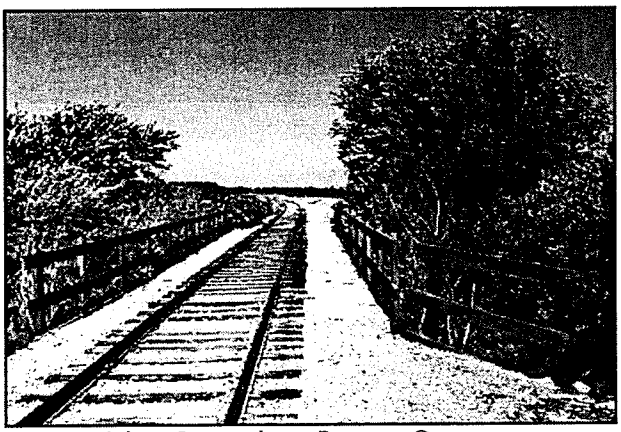
cars. The Fillmore and Western Rail Company hopes to expand their services east of Fillmore to Piru. Another popular use of the rail line between Santa Paula and Fillmore is for the filming of movies. The filming industry is attracted to the area because of the availability of the period style trains, the pristine environment and its ability to appear timeless for period movies.


Fillmore & Western Film Train

Because the excursion trains and filming activities are focused on recreating the feeling of a bygone era, there is a need in these areas to maintain the natural character of the rail line and orchards to the greatest extent feasible. This would include minimizing the use and visibility of fencing, and using construction materials that are natural in their appearance. Part of maintaining the existing natural appearance of the corridor is to avoid introducing any inappropriate plant/tree species (such as palm trees) that are not indigenous to the area. The Trail Plan addresses these sensitive train and filming areas through establishing overlay areas with special design and landscaping standards.

Environmental Impacts

The rail/trail corridor is adjacent to lands which are, for the most part, developed with urban uses or in active agricultural. There are no long stretches of park or open space preserves. However, there are a significant number of barrancas (creeks and drainage areas) which bisect the corridor as water moves down from the hills and out to the Santa Clara River. These barrancas contain unique vegetation and provide habitat and movement corridors for numerous animals native to the Santa Clara River Valley. New and/or expanded crossings and access points to the trail will need to be designed so as to minimize impacts to these sensitive areas.


Riparian Habitat Surrounding a Barranca Crossing.

The environmental document prepared for the Trail Plan will look carefully at the level of sensitivity of these habitat areas and assess the potential impacts the trail construction may have on them. The environmental document will not only look at the sensitive habitat issue, but will also delve into such issues as, public safety, circulation, land use compatibility, growth inducing impacts and alternative project scenarios.

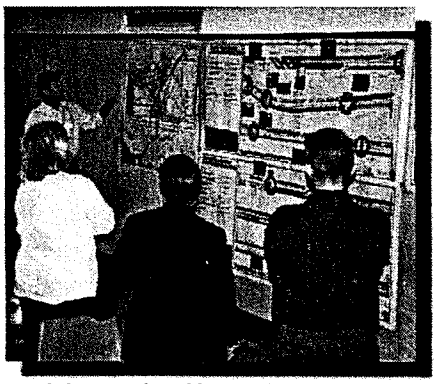
Public Involvement

The number of adjacent landowners to the rail/trail corridor is in the hundreds. These property owners, along with businesses, public agencies and special interest groups (bike enthusiasts, historians, and rail operators) all have concerns and ideas which are important to be heard and addressed within the Trail Plan.

Significant efforts have been made to inform and involve large segments of all the communities in the trail planning effort. Public outreach efforts have included individual meetings, newsletters and information letters, the formation and numerous meetings of both the Trail Advisory Committee and the Agricultural Subcommittee, and two sets of Public Workshops held in several locations along the project corridor. After the completion of this document, there will be an environmental document prepared for public review and comment, along with public hearings with the Ventura County Transportation Commission.

Liability

One resounding concern heard from adjacent property owners was the fear of increased exposure to liability associated with trespass. There are however, laws in place that protect property owners from trail users, greatly reducing (in reality) the perceived threat. The California Recreation Use Statute indemnifies property owners from liability associated with the trail except where the property owner has willfully and maliciously put the public at danger. This indemnification includes incidents that occur on private property involving trail users. The existing protection of the Recreation Use Statute, combined with physical design features (surveillance cameras, fencing, posting of signs, natural barriers), and operational measures (safety patrols, automatic response tied to surveillance cameras, limited hours of operation) are intended measures to inherently reduce the potential for liability and maximize private property protection. The Trail Plan contains a chapter dedicated to measures which address trail liability concerns.



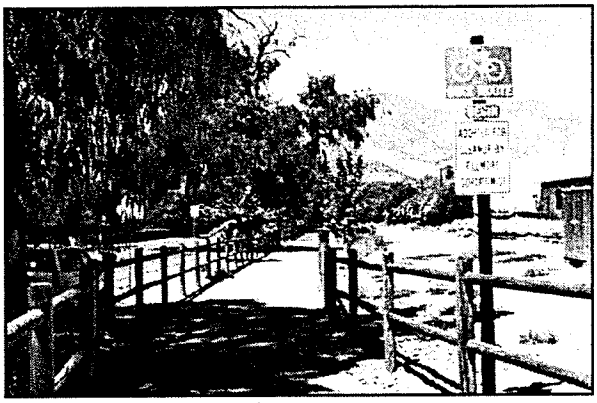
Workshops with Public Involvement and Input

Economic Resources

The construction costs associated with a project of this scale can appear daunting when looked at in its entirety. However, it is anticipated that the trail will be built in sections, starting in the urban areas. The Trail Plan includes cost estimates by trail segment and by jurisdiction in order to aide in the assessment of future trail installation timing. Funding is expected to be pursued from a combination of local, State and Federal resources. Phasing and funding are discussed in greater detail within the Implementation Chapter of this document.

Trail Management and Operations

The 32-mile project area crosses five jurisdictional boundaries. Future connection to Santa Clarita through Los Angeles County would involve additional public agencies. One of the main goals in this Master Plan effort is to create a trail that has continuity in its design appearance. Continuity in operational and maintenance factors are critical in achieving that goal. The framework for trail management, operations and maintenance are discussed in Chapter 14 of this document.



Fillmore Recreational Trail

7.0 Trail Design and Alignment Planning Criteria

To further focus and aid in the design of the trail and its alignment, a set of planning objectives were established and presented to the Trail Advisory Committee. The following Trail Planning Objectives resulted from a blending of the project goals with the constraints of the existing alignment, and the need to resolve identified project issues to the greatest extent possible. Acting as a set of refined project goals, these planning criteria/objectives are what have guided the outcome of the proposed trail character and its location within or near the rail corridor.

Trail Alignment Objectives

- Assuming solutions to Ag. Interests and other constraints are feasible, utilize the rail right of way to greatest degree possible
- Alternative alignments, if considered, must be in existing public rights of way (streets) or on existing bikeways
- Explore creative shared use of the existing rail right of way (i.e., long term use agreements with adjacent property owners)
- Alternative trail alignments should be considered when:
    - There are unmitigateable significant adverse impacts to adjacent properties
    - There are unmitigateable significant adverse impacts to environmental resources
    - Trail costs is disproportionately high
    - There are poor connections to local and regional destinations/attractions
    - There are numerous physical barriers
    - Other more suitable existing facilities parallel the ROW are present
- Avoid areas of extreme topography
- Minimize barranca and river crossings
- Minimize train track crossings for cost and safety purposes
- Look for logical and cost effective crossings at Highway 126
- Locate trail away from agricultural uses where feasible
- Look for important connections – aligning trail with other trails, urban uses and residential areas
- Alignment of trail to allow logical placement of staging areas

- Avoid vehicle and pedestrian conflicts to the greatest extent feasible
- Look for good connections for law enforcement and maintenance access
- Utilize signalized intersections at street crossings where feasible
- Use or maintain consistency with bikeway facilities and master plans in urban areas
- Look for opportunities to support and enhance recreation and tourist users

Trail Design Objectives

- Reduce potential for vandalism, theft and trespass
- Avoid interference with normal Ag. Operations (i.e. harvest, pruning, burning, equipment movement, spraying etc.)
- Provide for controlled vehicle access to the trail with barriers
- Use fences and/or other barriers:
    - When adjacent to Ag farm land
    - As a separation between rail line and trail
    - As a separation from other sensitive adjacent land uses
- Provide for physical buffers between trail and adjacent uses
- Provide secured gated access for:
    - Police and Fire Access
    - Trail Maintenance
    - Agricultural Operations and Ag. Roads crossing ROW
- Maintain and/or improve existing drainage patterns
- Provide for Directional and Safety Signage
- Choose appropriate landscape materials. Avoid using plants which are invasive or host to harmful pests
- Utilize native or appropriate plant species to blend with existing character of the valley
- Security lighting provided only in urban areas and/or for safety at crossings
- Locate Staging area at appropriate locations along trail route, providing:
    - Restrooms, telephone, drinking water, trash receptacles, shelter/seating, information kiosks

- Provide Informational Kiosks at appropriate locations for:
    - Rules of trail use and hours of operation, Directional Signing ("you are here") Location map for nearby services, Historical information references and mapping
- Incorporate identification markers for Saint Francis Dam Victim's Memorial theme
- Consider historical and design character for all areas of the trail route

8.0 Trail Alignment

The trail alignment described in this chapter represents the preferred trail alignment in the context of the project goals and alignment and design objectives that were established through the public outreach process. The methodology used to identify the preferred alignment included the following criteria and objectives:

- Available width on railroad right of way;
- Physical obstructions on railroad right of way;
- Adjacent land uses and accessibility;
- Number and type of grade crossings;
- Traffic volumes and speeds;
- Access to major activity centers;
- Integration into existing bicycling routes;
- Minimize or eliminate railroad grade crossings;
- Utilize existing facilities; and
- Cost factors.

The preferred alignment will be implemented in phases, therefore, there are sections that may have interim alignment solutions before reaching the long term preferred alignment goals.

The environmental review process for the Trail Plan includes the preparation of an Environmental Impact Report (EIR). The EIR will review alternative alignments to the preferred alignment contained in the Trail Plan. The analyses conducted as part of the EIR could potentially change some of the recommended alignment options in the Trail Plan. Such changes could necessitate refinement of the Trail Plan after EIR certification.

Preferred Alignment Overview

The 32-mile Santa Paula Branch Line Rail Trail alignment has been divided into project segments for closer evaluation. Those individual segments are described in this chapter. However, the general alignment is shown below in Figure 17 with a narrative description that follows.

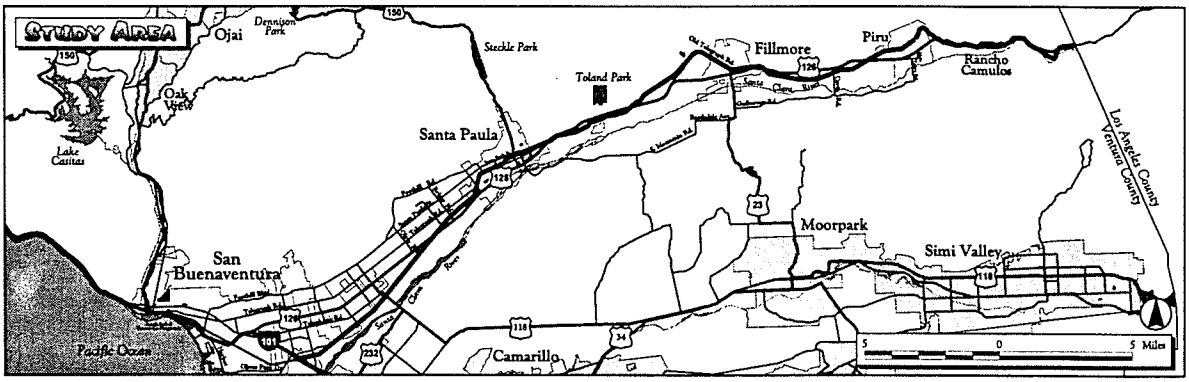


Figure 17. Overall Trail Alignment

At its western most point, the trail begins at the Harmon Barranca Trail in San Buenaventura. This terminus provides the ability for an informal staging point and greater potential for extended connections to the west than staying on the corridor through to Ventura Boulevard.

The trail stays on the rail corridor until it reaches Bristol Road, where it would share the County road right of way through to Montgomery Avenue. There the trail stays within the corridor until it crosses Brown Barranca, where it leaves the right of way to Nardo Road, rejoining the corridor at the Saticoy Train Depot. Leaving Saticoy the trail is once again on the rail corridor all the way to Santa Paula.

In Santa Paula the trail stays within the rail corridor between the rail road tracks and Main Street. A grade separated crossing is proposed at the east end of town, near Hallock Drive, to cross Highway 126. Leaving Santa Paula the trail is within the rail corridor until Sycamore Road, where the Largo Lane undercrossing at Highway 126 is proposed to be used. There, the trail stays within the Sycamore Road right of way until 7th Street, where it rejoins the rail corridor.

West of Fillmore, at Grand Avenue, the trail leaves the right of way to connect with Telegraph Road to cross Sespe Creek on the existing bridge system. In Fillmore, the trail remains within the rail corridor to Main Street. The trail will extend through the Central Plaza to the eastern edge of town where it will either cross Highway 126 at a new grade separated bridge, or will leave the rail corridor to utilize the undercrossing at Pole Creek, reconnecting with the rail corridor near the fish hatchery site.

East of Fillmore, the trail stays within the rail corridor through to Hopper Canyon where it passes over Highway 126 and crosses Hopper Creek via a new bridge and trestle crossing. The trail stays within the corridor through Piru until Center Street, at which point the Center Street right of way and bridge structure is used for crossing Piru Creek.

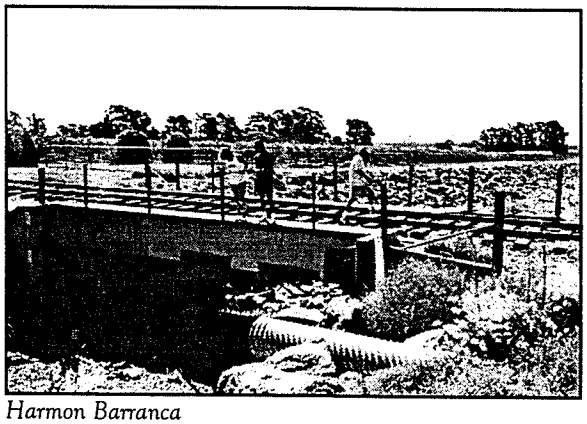
East of Piru, the trail stays within the rail corridor through to Rancho Camulos, where it reaches its eastern terminus at the historic ranch. The trail would utilize the existing Rancho Camulos undercrossing at Highway 126 to reach the south side, where a staging area is proposed on the Rancho Camulos grounds.

Trail Alignment Segments

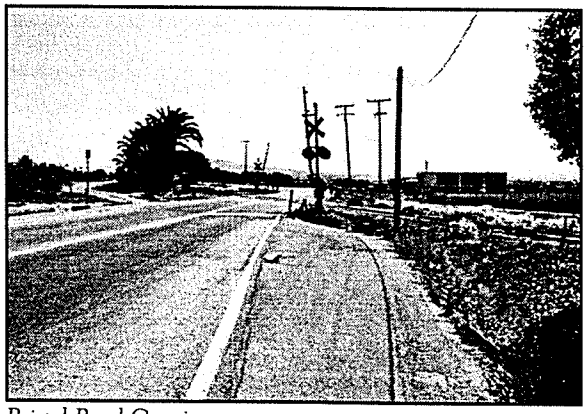
The 32-mile length of the rail/trail corridor has been divided into seventeen segments to better illustrate and manage the trail alignment data. Each segment is described and illustrated below.

Segment 1 - Johnson Drive to Montgomery

Segment 1 will begin at Johnson Drive and proceed east to Montgomery Avenue. The Trail on the VCTC right-of-way will begin on the east side of Johnson Drive at the Harmon Barranca Trail. Proceeding east from Johnson Drive, the Trail will be located on the south side of the tracks making an intersection with the Harmon Barranca Trail. For access purposes, the Trail will be primarily accessed from Johnson Drive at the Harmon Barranca Trailhead. East of the Harmon Barranca Trail, the Trail stays within the corridor on the south side of the tracks passing through some varied topography and adjacent to orchards and residential areas. At Bristol Road, the Trail will leave the VCTC right-of-way and follow Bristol Road to Montgomery Avenue. At Montgomery Avenue, a future connection south to the North Bank Trail will be made while the Trail itself crosses from the south side of Bristol Road back onto VCTC right-of-way to continue eastward along the south side of the tracks east of Montgomery Avenue.



Harmon Barranca



Bristol Road Crossing

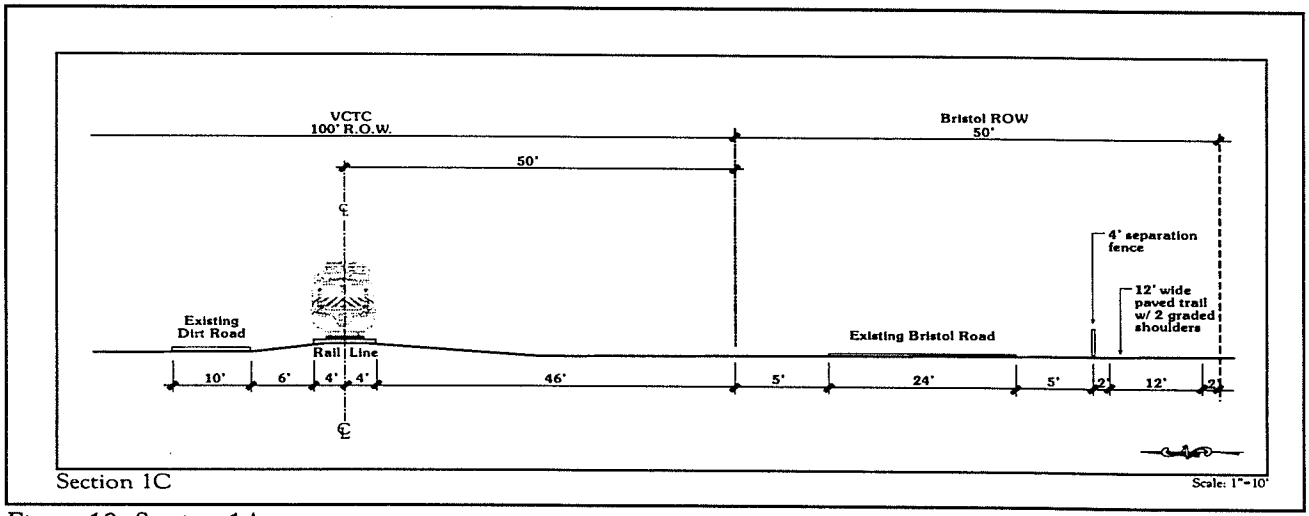
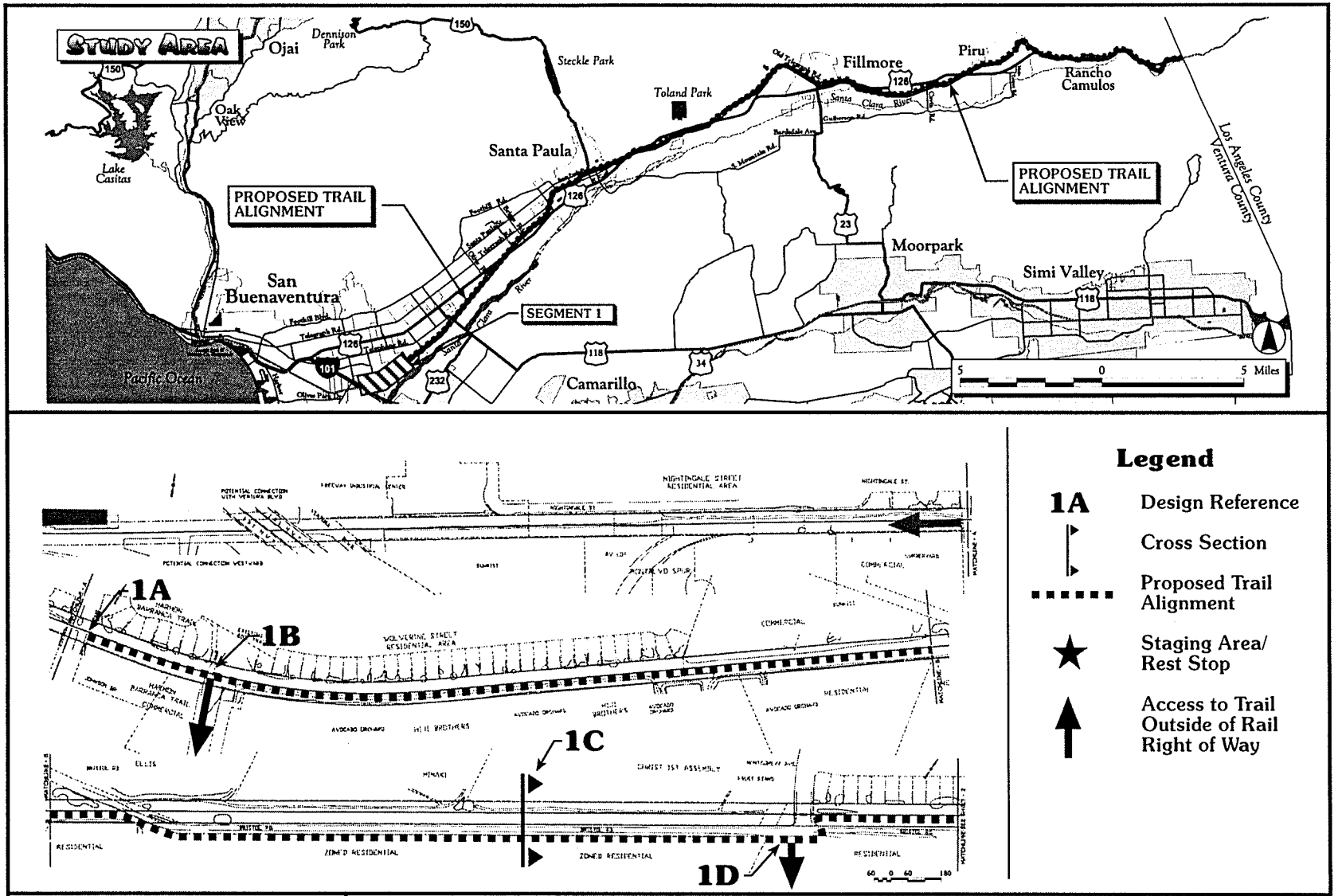


Figure 18, Section 1A



SANTA PAULA BRANCH LINE
Recreational Trail

Segment 1 - *Johnson Drive to Montgomery Avenue*

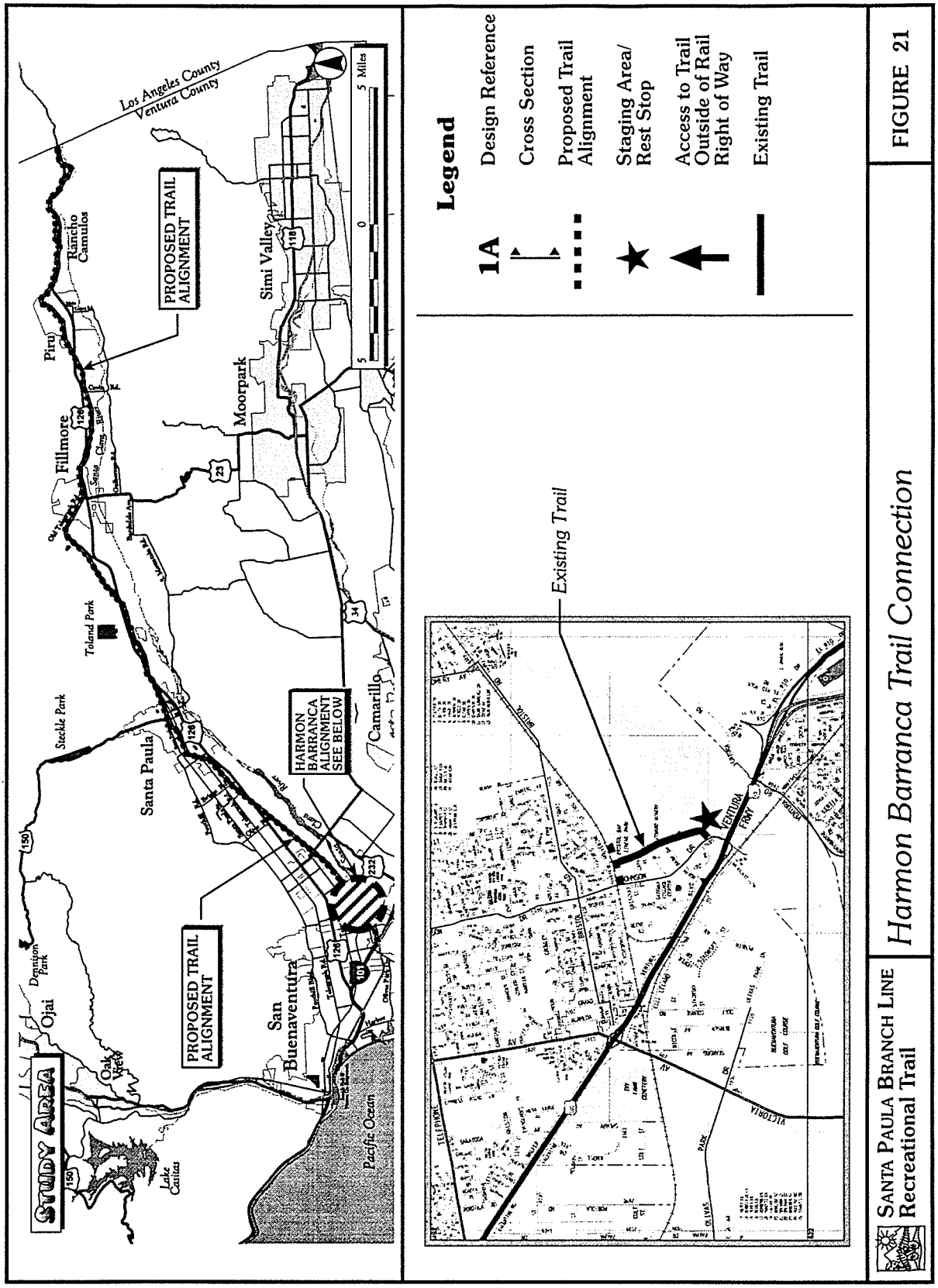
FIGURE 19

Segment 1	**Johnson Drive to Montgomery Avenue**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings		0
Major Roadway Crossings	Johnson Avenue	1
Minor Roadway Crossings	Montgomery Avenue Bristol Road (North Bank Drive)	2
Private Ag Road Crossings		0
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		0
Staging Areas/Rest Stops		0
Trail Connections	Harmon Barranca Future of Coastal System North Bank Trail	3

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
1A	Johnson Avenue	Typical Design Treatment #4	
1B	Harmon Barranca Trail	Typical Design Treatment #7	
1C	Cross Section	Bristol Road (North Bank Drive) / VCTC right of way	
1D	Montgomery Avenue	Typical Design Treatment #4	

Figure 20, Summary Tables Segment 1



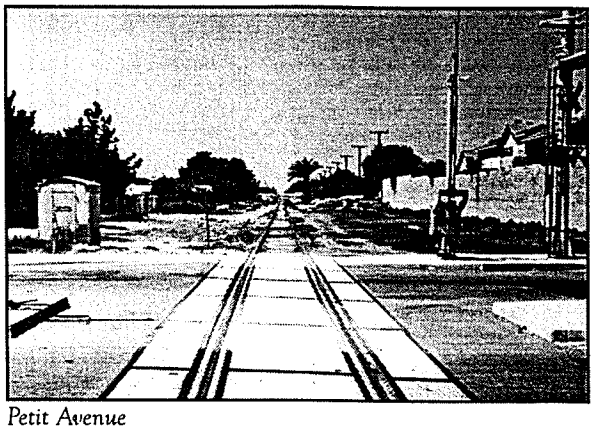
SANTA PAULA BRANCH LINE Recreational Trail

Harmon Barranca Trail Connection

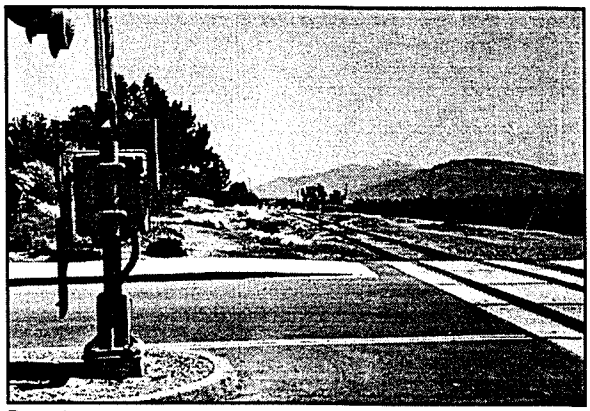
FIGURE 21

Segment 2 - Montgomery Avenue to Old Saticoy Depot

Segment 2 runs west / east from the Neath Street Residential Area to the Old Saticoy Train Depot at Alelia Street. Continuing east from the Neath Street Residential Area, the Trail stays on the south side of the tracks within the VCTC right-of-way. At Petit Avenue, a future Trail connection to the North Bank Trail will be made. The Trail continues east from Petit Avenue on the south side of the tracks crossing the Big Horn area drainage, Saticoy Avenue and Brown Barranca. Just east of Brown Barranca, the Trail leaves the VCTC right-of-way across an existing easement on adjacent commercial land to Nardo Street. The Trail becomes a Class II bike lane on Nardo Street. This Class II segment crosses 118 at a signalized intersection, continues eastward to cross Los Angeles Avenue and Alelia Streets. At Alelia Street, the Class II bike lanes turns north crossing VCTC right-of-way and tracks, and then continues eastward on the north side of VCTC right-of-way. At the Old Saticoy Train Depot, a rest area is planned as a part of Saticoy Village renovation and the Train Depot restoration. The Trail will then continue east on the north side of the tracks toward Santa Paula.

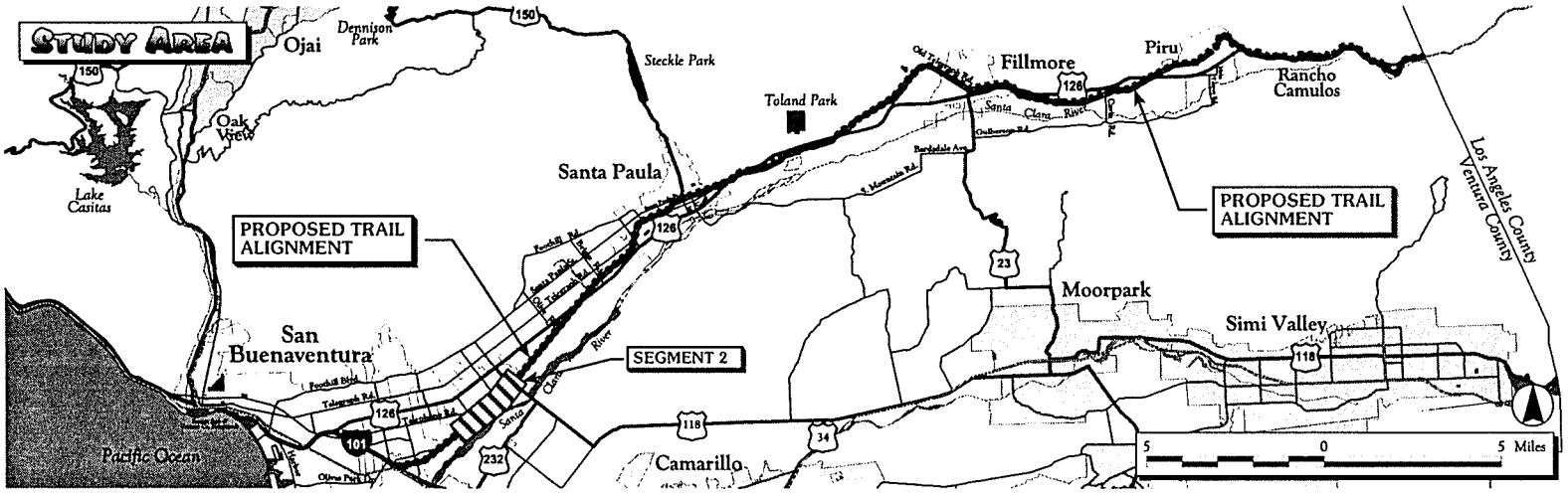


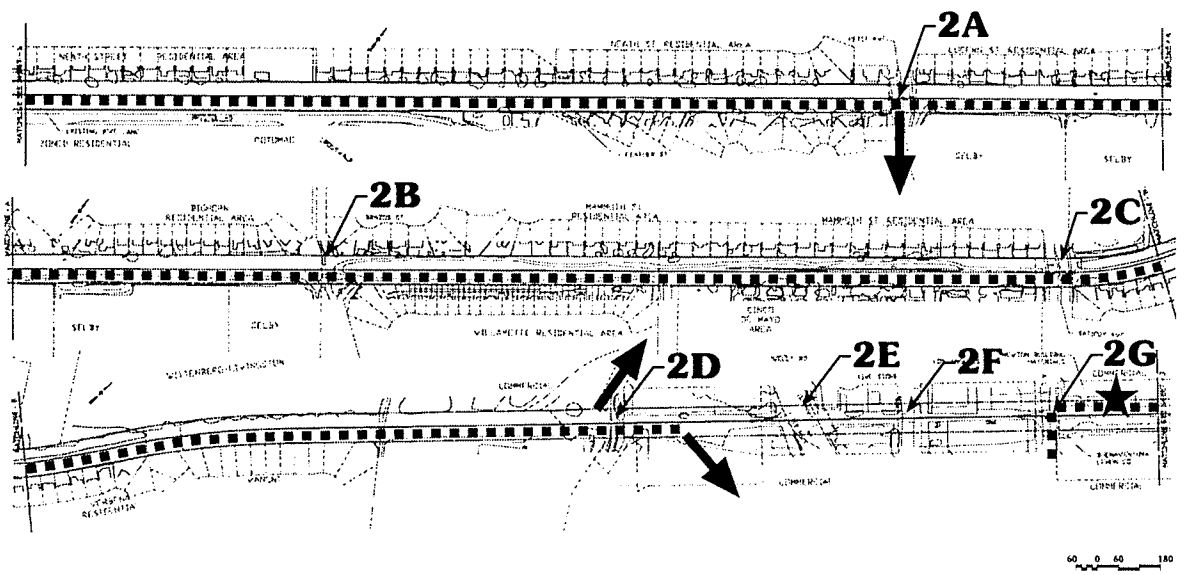
Petit Avenue



Petit Avenue

An optional route to Nardo Road provides a trail alignment through the planned Veterans Hospital site to Telephone Road. The trail would cross Highway 118 at Telephone Road and then turn south on Alelia Street to the VCTC right-of-way as a Class II bikeway.





Legend

- **1A** Design Reference
- Cross Section
- Proposed Trail Alignment
- Staging Area / Rest Stop
- Access to Trail Outside of Rail Right of Way

SANTA PAULA BRANCH LINE Recreational Trail

Segment 2 - *Montgomery Avenue to Old Saticoy Depot*

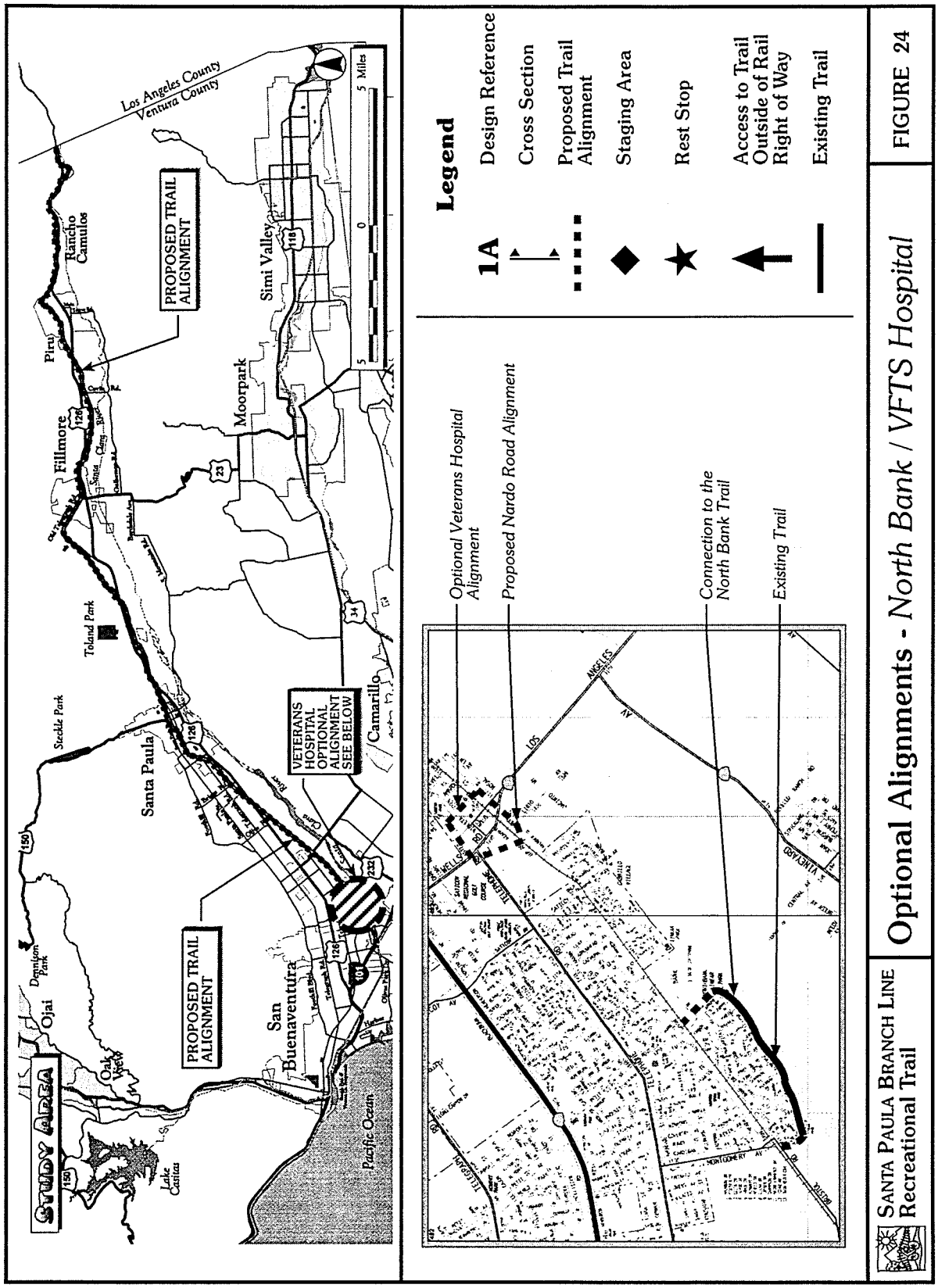
FIGURE 22

Segment 2	**Montgomery Avenue to Old Saticoy Depot**	
Segment Length: 2.3 miles	Class I = 2.0 miles Class II = .3 miles	#
State Highway Crossings	Highway 118	1
Major Roadway Crossings	Los Angeles Avenue	1
Minor Roadway Crossings	Petit Avenue Saticoy Avenue Alelia Street	3
Private Ag Road Crossings		2
At Grade Railroad Crossings	Alelia Street	1
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings	Brown Barranca Big Horn Drainage	2
Staging Areas / Rest Stops	Saticoy Train Depot	1
Trail Connections	North Bank Trail	1

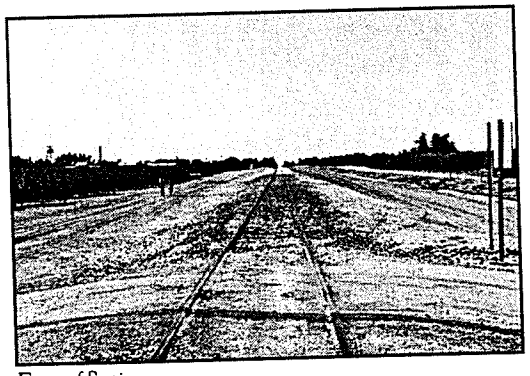
Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
2A	Petit Avenue	Typical Design Treatment #4	
2B	Bighorn Area Drain Channel	Typical Design Treatment #1B	
2C	Saticoy Avenue	Typical Design Treatment #4	
2D	Brown Barranca	Typical Design Treatment #1C	
2E	118 Highway @ Nardo	Typical Design Treatment #4	
2F	Los Angeles Avenue @ Nardo	Typical Design Treatment #4	
2G	Rail Crossing @ Alelia	Typical Design Treatment #6	

Figure 23, Summary Tables Segment 2

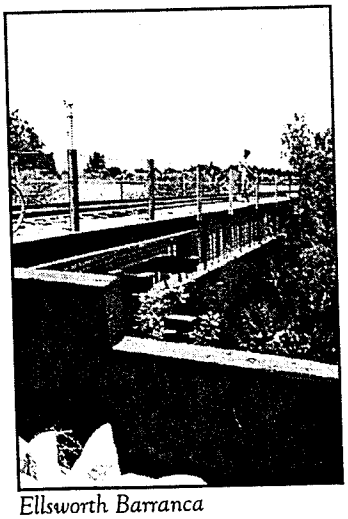

Los Angeles County
Ventura County
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
VETERANS HOSPITAL OPTIONAL ALIGNMENT SEE BELOW
STUDY AREA
Rancho Camulos
Simi Valley
Moorpark
Fillmore
Piru
Toland Park
Santa Paula
Steckle Park
Ojai
Oak View
Lake Casitas
San Buenaventura
Pacific Ocean
Camarillo
Donlon Park
5 0 5 Miles
Legend
Design Reference
Cross Section
Proposed Trail Alignment
Staging Area
Rest Stop
Access to Trail Outside of Rail Right of Way
Existing Trail
Optional Veterans Hospital Alignment
Proposed Nardo Road Alignment
Connection to the North Bank Trail
Existing Trail
SANTA PAULA BRANCH LINE Recreational Trail
Optional Alignments - *North Bank / VFTS Hospital*
FIGURE 24

Segment 3 – Saticoy Depot to Limoneira Property



East of Saticoy

Segment 3 leaves the Saticoy Train Depot area and stretches east toward Santa Paula through agricultural lands. The Trail will be located on the north side of the tracks in this segment first crossing the Campanula drainage just east of the Saticoy site. The Trail crosses approximately seven private ag road crossings and Ellsworth Barranca.



Ellsworth Barranca

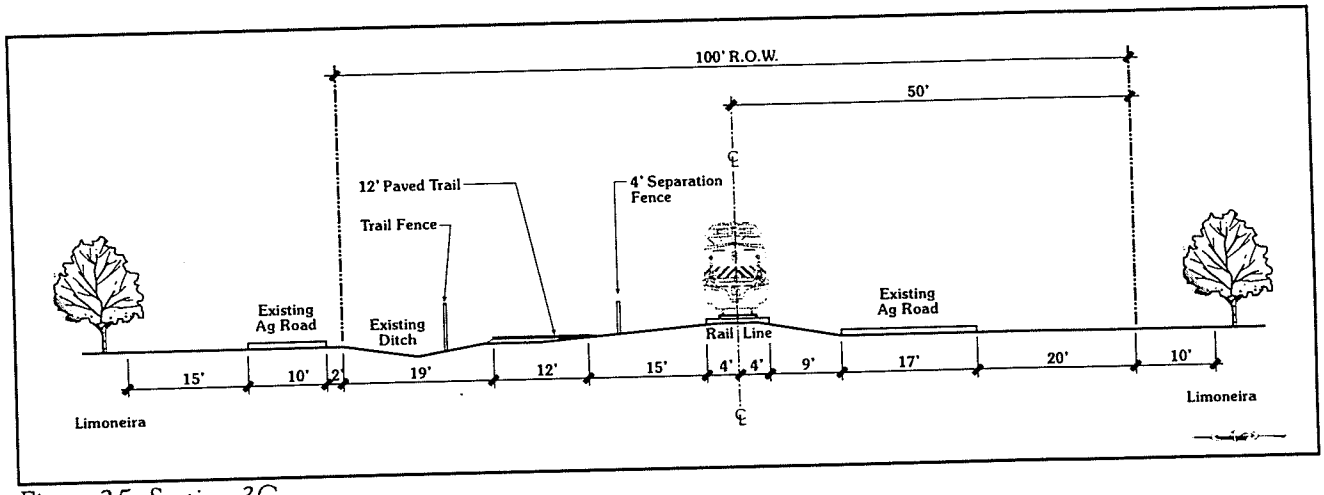


Figure 25, Section 3C

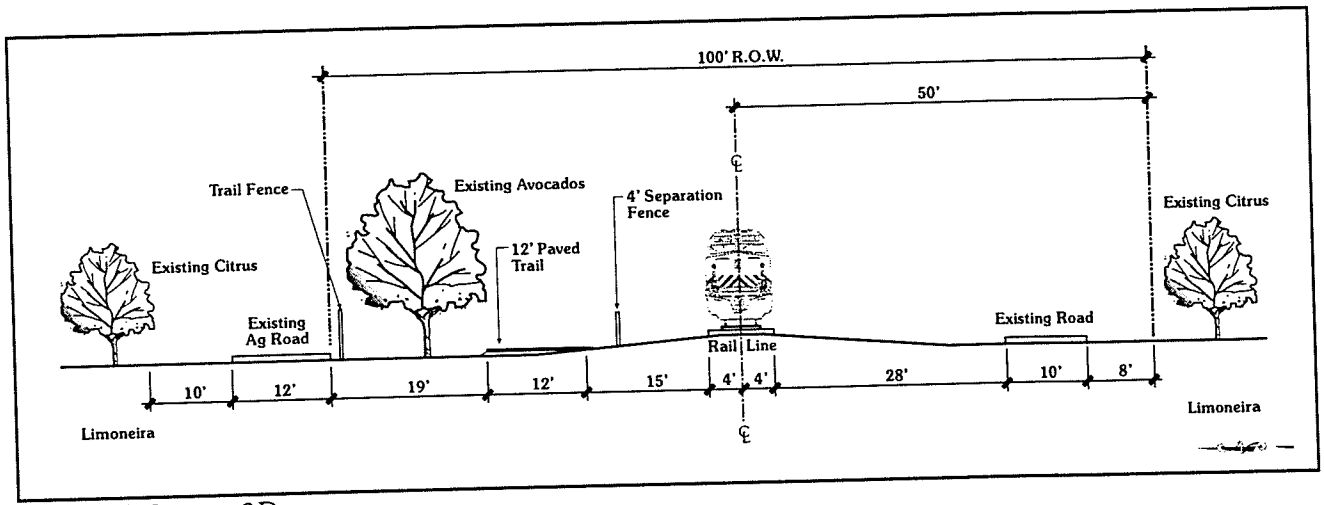


Figure 26, Section 3D

Segment 3	**Saticoy Depot to Limoneira Property**	
Segment Length: 2.3 miles	Class I = 2.3 miles	#
State Highway Crossings		0
Major Roadway Crossings		0
Minor Roadway Crossings		0
Private Ag Road Crossings		7
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Ellsworth Barranca	1
Minor Drainage Crossings	Campanula & Limoneira Drainage	2
Staging Areas / Rest Stops		0
Trail Connections		0

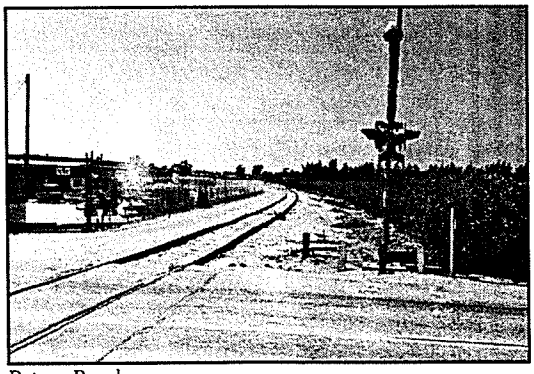
Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
3A	Campanula	Typical Design Treatment #1B	
3B	Ellsworth Barranca	Typical Design Treatment #2	
3C	Cross Section	Limoneira Property	
3D	Cross Section	Limoneira Property	
3E	Limoneira Drainage	Typical Design Treatment #1C	

Figure 28, Summary Tables Segment 3

Segment 4 – Todd Barranca to Adams Barranca

Segment 4 begins just west of Todd Barranca and stretches east toward Adams Barranca. The Trail remains on the north side of the tracks crossing Todd Barranca and Todd Road continuing east through the Highway 126 tunnel. At Briggs Road, the Trail switches from the north side of the tracks to the south side of the tracks. At Briggs Road, a future Trail connection to the elementary school at Telegraph and Briggs will be provided. East of Briggs Road, the Trail continues east on the south side of the tracks crossing Haines Barranca, Adams Barranca, and into Santa Paula.



Briggs Road

Hains Barranca

In this segment the trail passes Faulkner Farms. As planned, Faulkner Farms will offer, among other activities, educational opportunities and support research of local agricultural practices. A future connection to this important research facility would be a logical link to the trails educational mission.

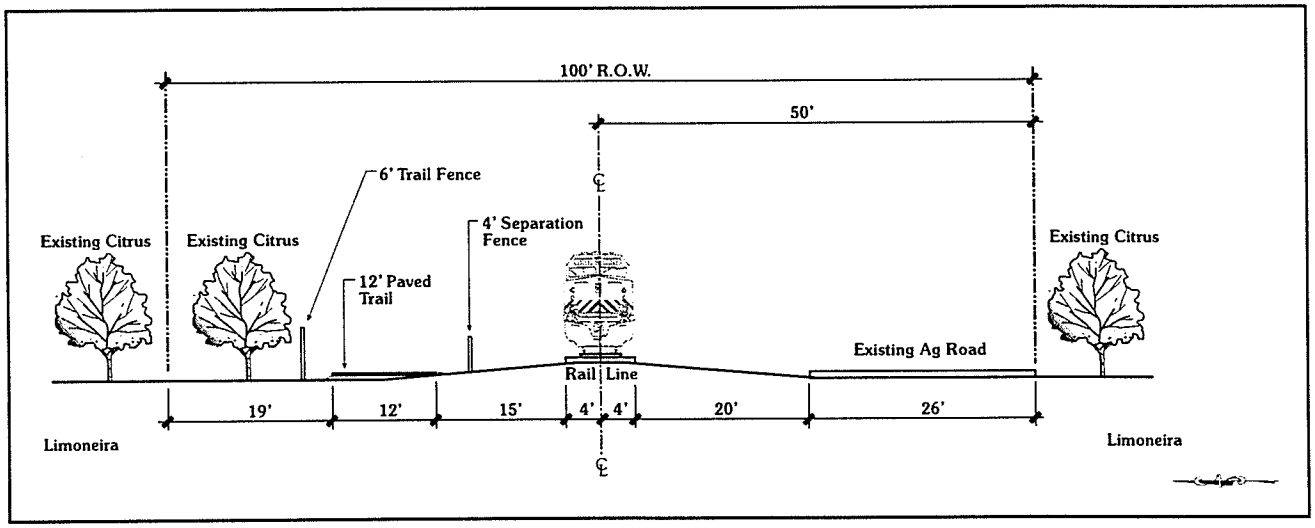


Figure 29, Section 4A

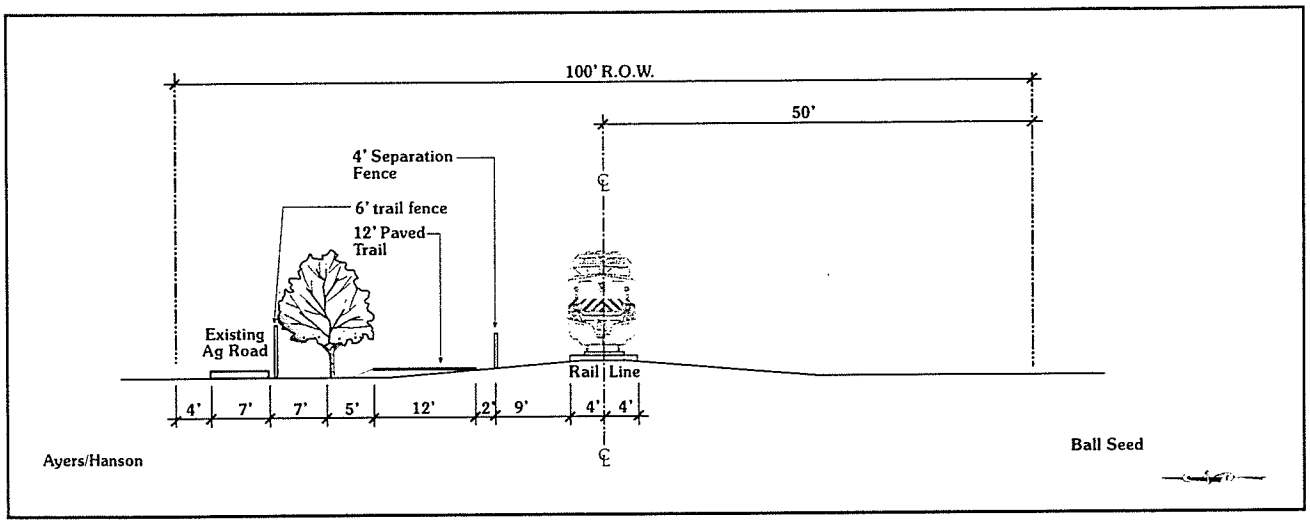
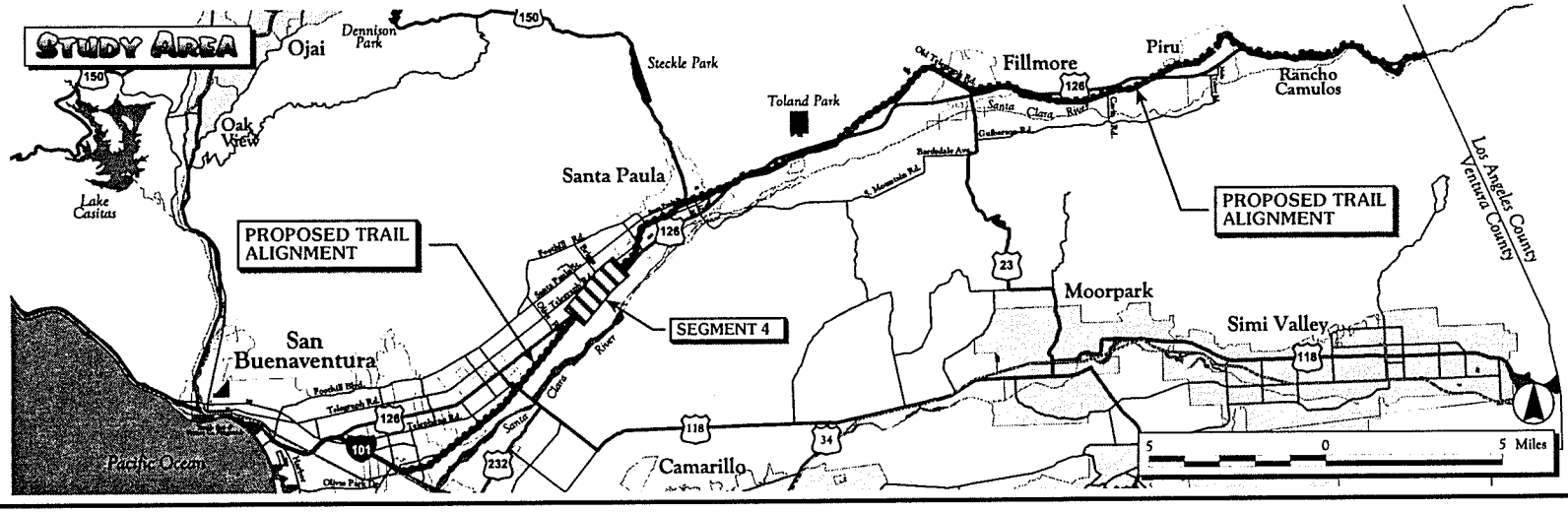
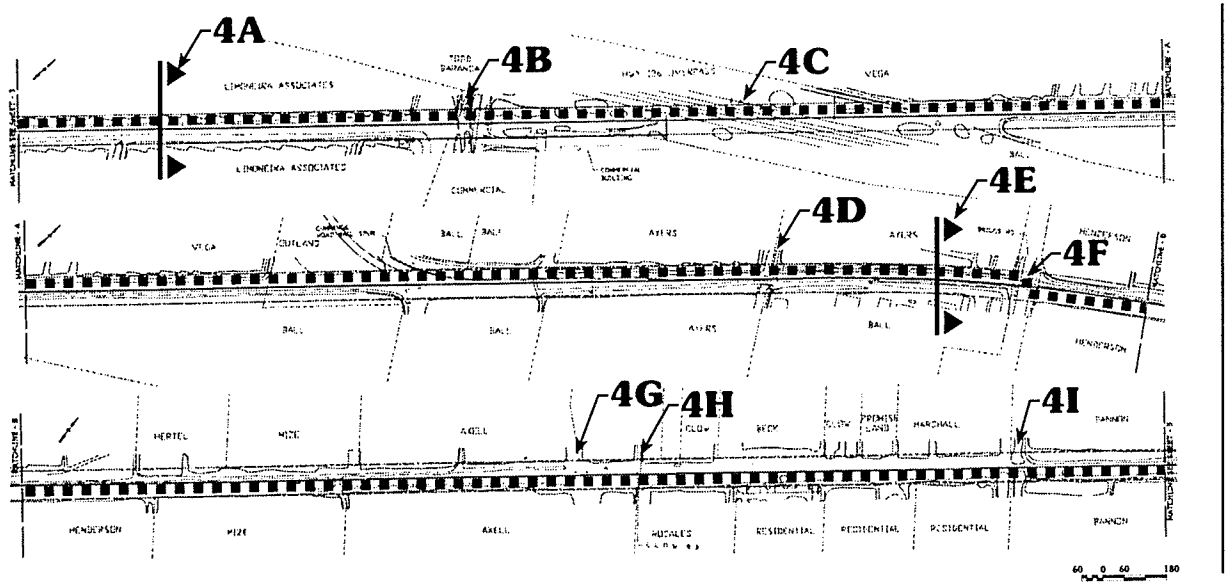


Figure 30, Section 4E





Legend

- **1A** — Design Reference
- Cross Section
- Proposed Trail Alignment
- Staging Area/ Rest Stop
- Access to Trail Outside of Rail Right of Way

SANTA PAULA BRANCH LINE Recreational Trail

Segment 4 - *Todd Barranca to Adams Barranca*

FIGURE 31

Segment 4	**Todd Barranca to Adams Barranca**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings	Highway 126 Tunnel	1
Major Roadway Crossings		0
Minor Roadway Crossings	Briggs Road Clow Road Todd Road	1
Private Ag Road Crossings		3
At Grade Railroad Crossings	Briggs Road	1
Major Drainage / Barranca Crossings	Haines Barranca Todd Barranca Adams Barranca	3
Minor Drainage Crossings	Ayers Drainage	1
Staging Areas / Rest Stops		0
Trail Connections	School @ Telegraph and Briggs	1

Design Standard Reference Table

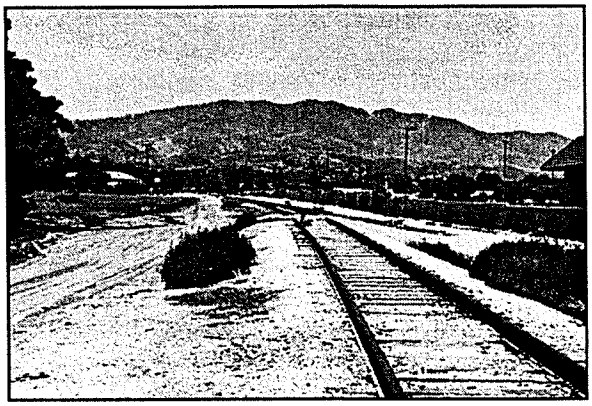
Locator #	Crossing Reference	Design Standard	Figure Reference
4A	Cross Section	Limoneira Property	
4B	Todd Barranca & Road	Typical Design Treatment #2 & #4	
4C	126 Tunnel	Specific Design Treatment	
4D	Ayers Drainage	Typical Design Treatment #1C	
4E	Cross Section	Limoneira Property	
4F	Briggs Road & Railroad Crossing (east)	Typical Design Treatment #6	
4G	Haines Barranca	Typical Design Treatment #2	
4H	Clow Road	Typical Design Treatment #4	
4I	Adams Barranca	Typical Design Treatment #2	

Figure 32, Summary Tables Segment 4

Segment 5 - Beckwith Road to Dean Drive

Segment 5 proceeds east from Beckwith Road into Santa Paula to just west of Dean Drive. The Trail continues on the south side of the tracks crossing Beckwith Road, Todd Lane, and a number of private agricultural crossings. At the intersection of Telegraph, Main, and Peck, the Trail leaves the right-of-way to cross this complex signalized intersection. A Trail access point will be provided just west of the rail crossing on Telegraph. This Trailhead will provide parking and Trail user services as described in the design section of this document. East of the Telegraph, Peck, Main intersection, the Trail continues along the south side of the tracks, between the tracks and Main Street right-of-way.

Santa Paula



West of Santa Paula

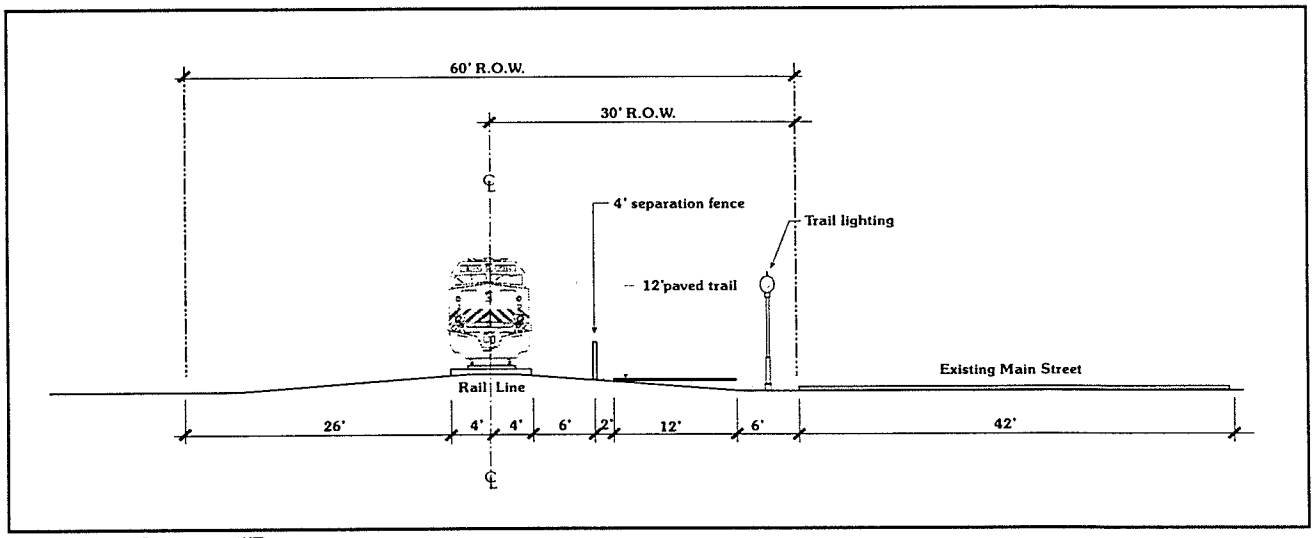
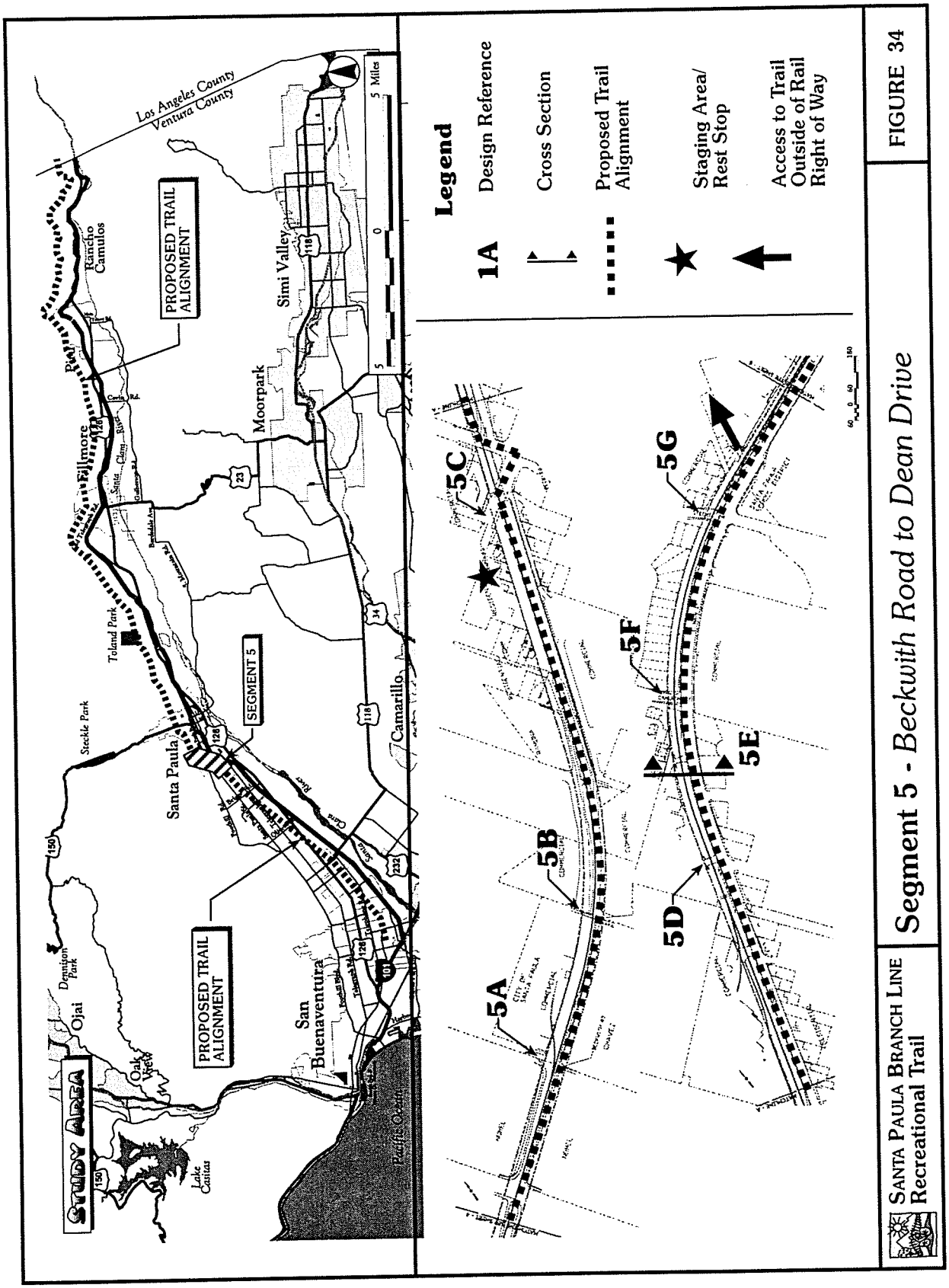


Figure 33, Section 5E


Los Angeles County
Ventura County
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
SEGMENT 5
STUDY AREA
Rancho Camulos
Simi Valley
Moorpark
Fillmore
Toland Park
Santa Paula
Stockle Park
Ojai
Oak View
Lake Casitas
San Buenaventura
Camarillo
Pacific Ocean
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
5A
5B
5C
5D
5E
5F
5G
SANTA PAULA BRANCH LINE Recreational Trail
Segment 5 - Beckwith Road to Dean Drive
FIGURE 34

Segment 5	**Beckwith Road to Dean Drive**	
Segment Length: 1.38 miles	Class I = 1.38 miles	#
State Highway Crossings		0
Major Roadway Crossings	Telegraph Road / Peck / Main	3
Minor Roadway Crossings	Steckel Drive Beckwith Road Todd Lane Cameron Street	4
Private Ag Road Crossings		2
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		0
Staging Areas / Rest Stops / Access Point		1
Trail Connections	Various Resting Time in Santa Paula Fagan Barranca Trail (Existing)	

Design Standard Reference Table

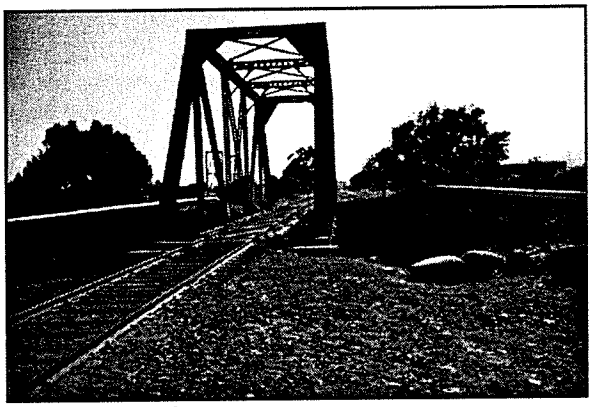
Locator #	Crossing Reference	Design Standard	Figure Reference
5A	Beckwith	Typical Design Treatment #4	
5B	Todd	Typical Design Treatment #4	
5C	Telegraph / Main / Peck	Specific Design Treatment	
5D	Private Drive (paved)	Typical Design Treatment #3	
5E	Cross Section	East Main Street	
5F	Cameron	Typical Design Treatment #4	
5G	Steckel	Typical Design Treatment #4	

Figure 35, Summary Tables Segment 5

Segment 6 - Dean Drive to Santa Paula Creek

This segment begins just west of Dean Drive and stretches east to the Ferris Lane Area east of Santa Paula Creek. The Trail remains on the south side of the tracks between Main Street and the VCTC right-of-way and continues past Dean Dr., Palm Ave., and Olive St.. In the area between Dean Drive and east of Palm, the tracks will be shifted to the north side of the VCTC right-of-way to provide enough room for the Trail. The Trail will then continue east crossing 7th Street and Santa Barbara, requiring special street crossings in this location. The Trail continues south of the tracks in the VCTC right-of-way across 8th, 9th, and into the Santa Paula Depot Area. The Trail will pass through the Santa Paula depot area in a fashion compatible with train depot area activities. Parallel on-street bike lanes will also be provided in the depot area. East of the depot, the Trail will cross 10th Street and 12th Street, and will continue east on the south side of the tracks toward Santa Paula Creek. At Santa Paula Creek, a structure will be built to parallel the rail crossing of this channel. The Trail continues east along the right-of-way through the Ferris Lane area crossing Ferris Lane on the south side of the tracks.

East Main Street



Santa Paula Creek

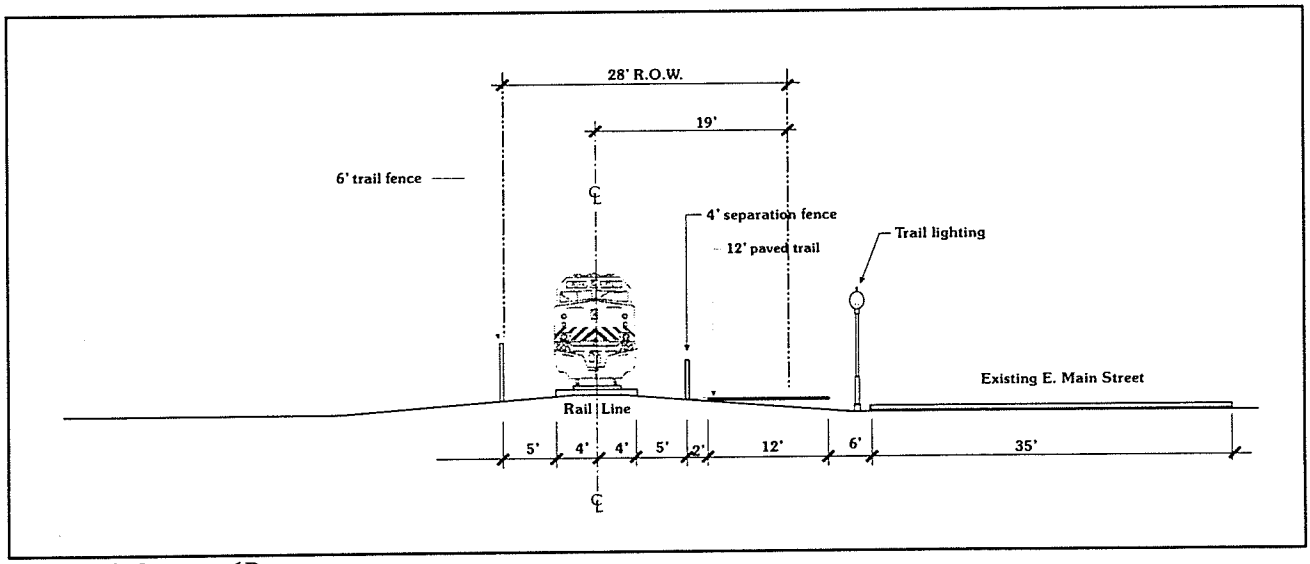
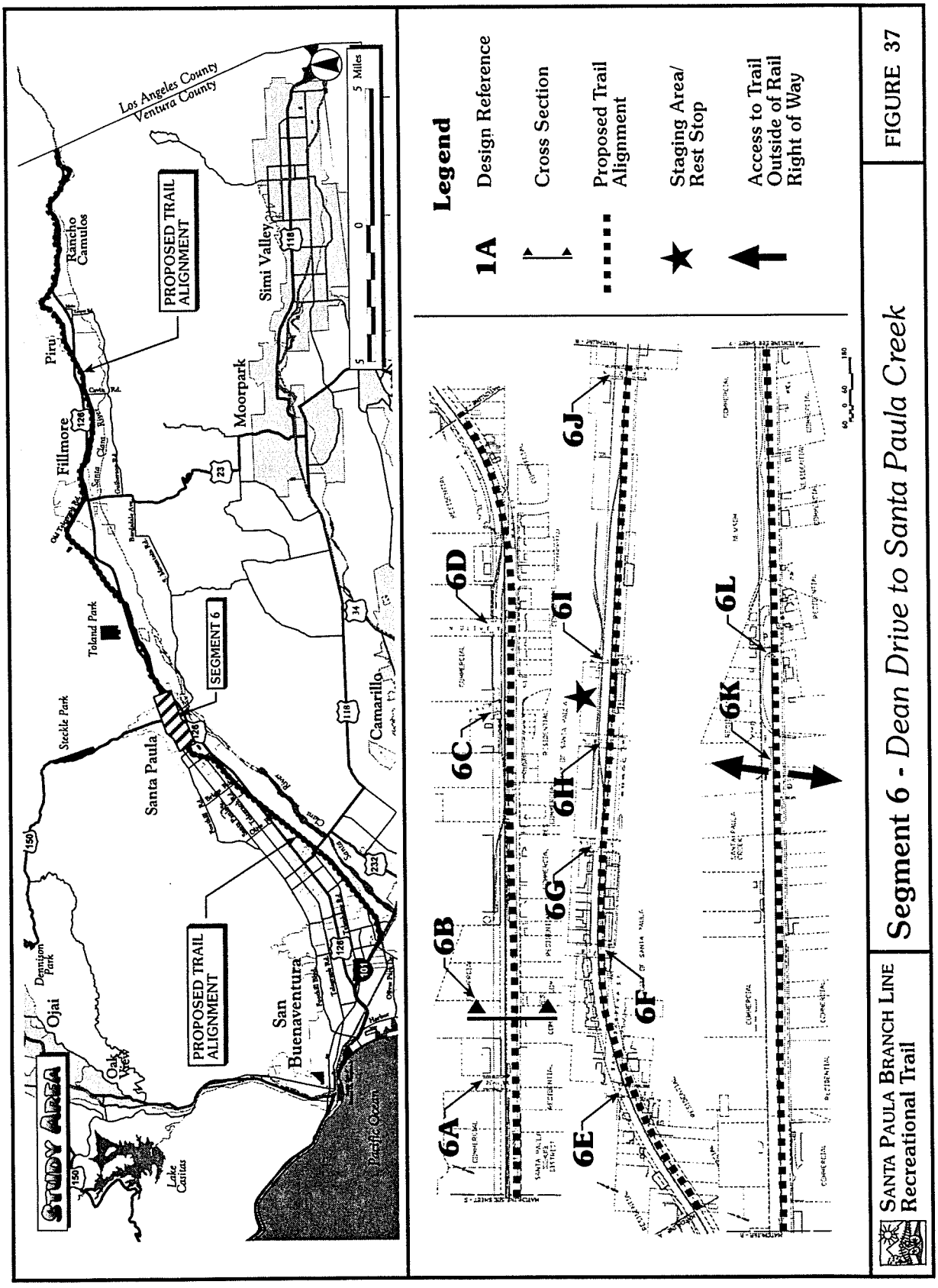


Figure 36, Section 6B


Los Angeles County
Ventura County
PROPOSED TRAIL ALIGNMENT
SEGMENT 6
PROPOSED TRAIL ALIGNMENT
STUDY AREA
Piru
Fillmore
Rancho Camulos
Moorpark
Simi Valley
Toland Park
Santa Paula
Stockle Park
Camarillo
Ojai
Oak View
Lake Casitas
San Buenaventura
Pacific Ocean
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
6A
6B
6C
6D
6E
6F
6G
6H
6I
6J
6K
6L
SANTA PAULA BRANCH LINE Recreational Trail
Segment 6 - Dean Drive to Santa Paula Creek
FIGURE 37

Segment 6	**Dean Drive to Santa Paula Creek**	
Segment Length: 2.18 miles	Class I = 2.18 miles	#
State Highway Crossings		0
Major Roadway Crossings	North 10th	1
Minor Roadway Crossings	Dean Dr, Palm Ave, N. Olive St., 7th St, Santa Barbara St, 8th, 9th, 12th Streets	9
Private Ag Road Crossings		1
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Ferris Drive Santa Paula Creek	2
Minor Drainage Crossings		0
Staging Areas / Rest Stops / Access Points	Santa Paula Train Depot	1
Trail Connections	Various Destinations in Santa Paula Proposed Santa Paula Creek Trail	

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
6A	Dean Drive	Typical Design Treatment #4	
6B	Cross Section	East Main Street	
6C	Palm	Typical Design Treatment #4	
6D	Olive	Typical Design Treatment #4	
6E	7th and Santa Barbara	Specific Design Treatment	
6F	8th	Typical Design Treatment #4	
6G	9th	Typical Design Treatment #4	
6H	N. Mill	Street to be Closed	
6I	10th (150)	Typical Design Treatment #4	

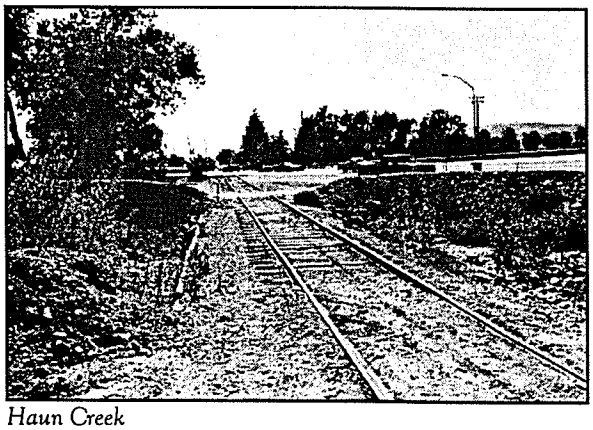
Continued on Nest Page

6J	12th	Typical Design Treatment #4	
6K	Santa Paula Creek	Specific Design Treatment	
6L	Ferris Lane	Specific Design Treatment	

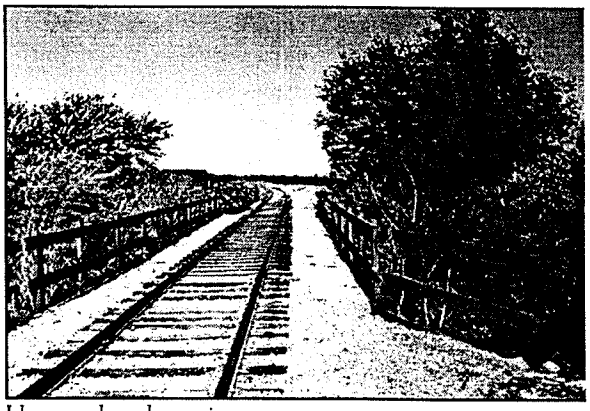
Figure 38. Summary Table Segment 6

Segment 7 - Ferris Lane to Petersen Property

This segment proceeds east from the Newsome property to the Peterson property staying on the south side of the tracks across the Teague McKevitt Ranch entrance. A Trail access point and entrance feature into Santa Paula will be located between the Teague McKevitt Ranch and Highway 126 adjacent to the VCTC right-of-way. The Trail will then cross Highway 126, Haun Creek, and the railroad tracks with a grade separated crossing. East of Haun Creek, the Trail will be located on the north side of the tracks crossing Willard Road toward Timber Canyon. The right-of-way narrows to 50 feet in width across the Hobson and Leavens properties at Timber Canyon. The Trail will follow the north side of the right-of-way, continuing east crossing Peterson drainages.



Haun Creek



Un-named creek crossing

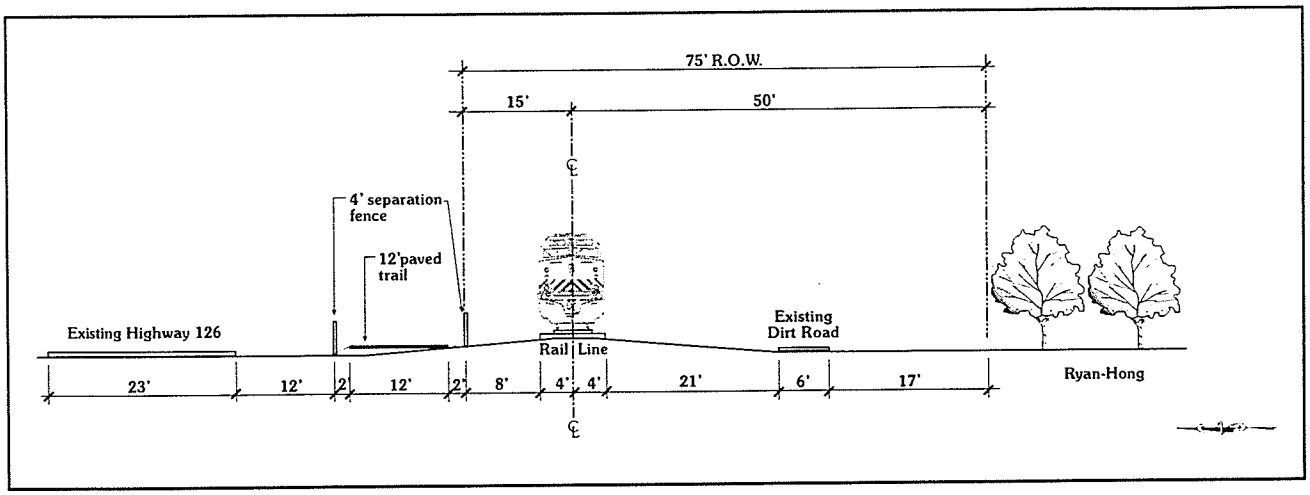


Figure 39, Section 7C

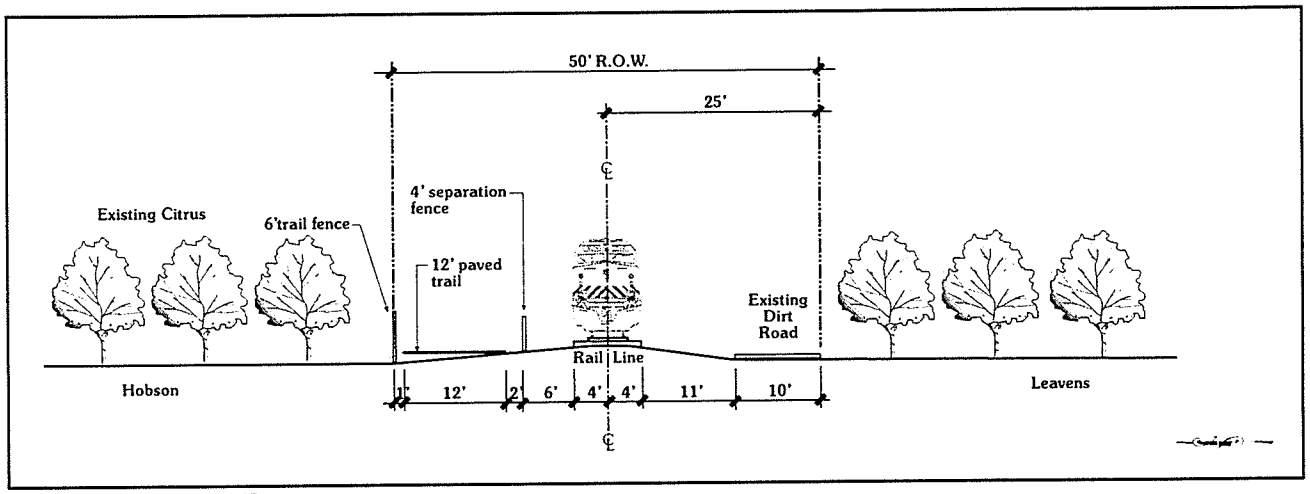


Figure 40, Section 7E

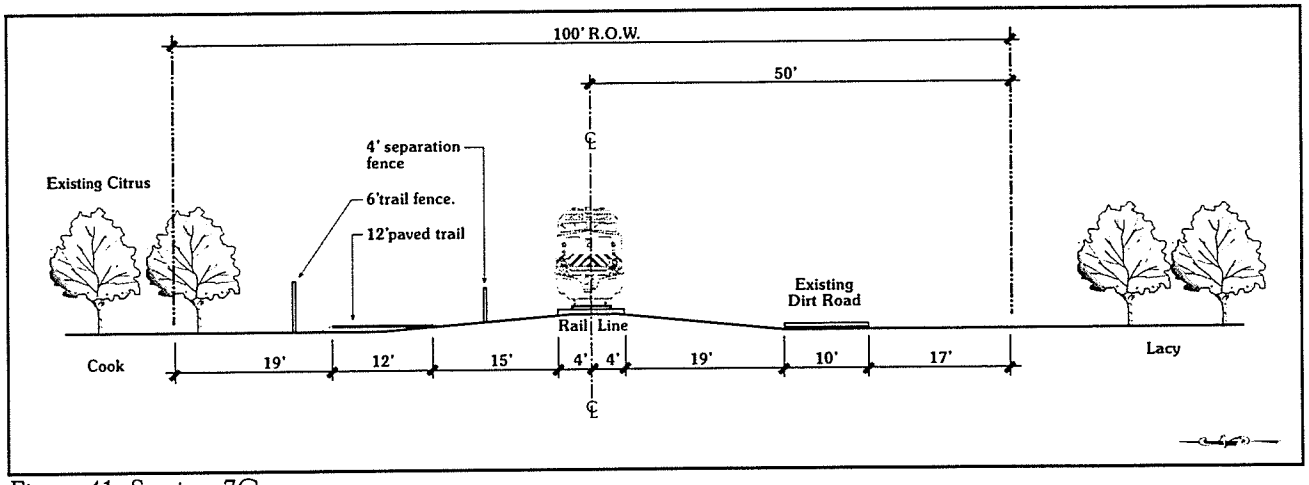
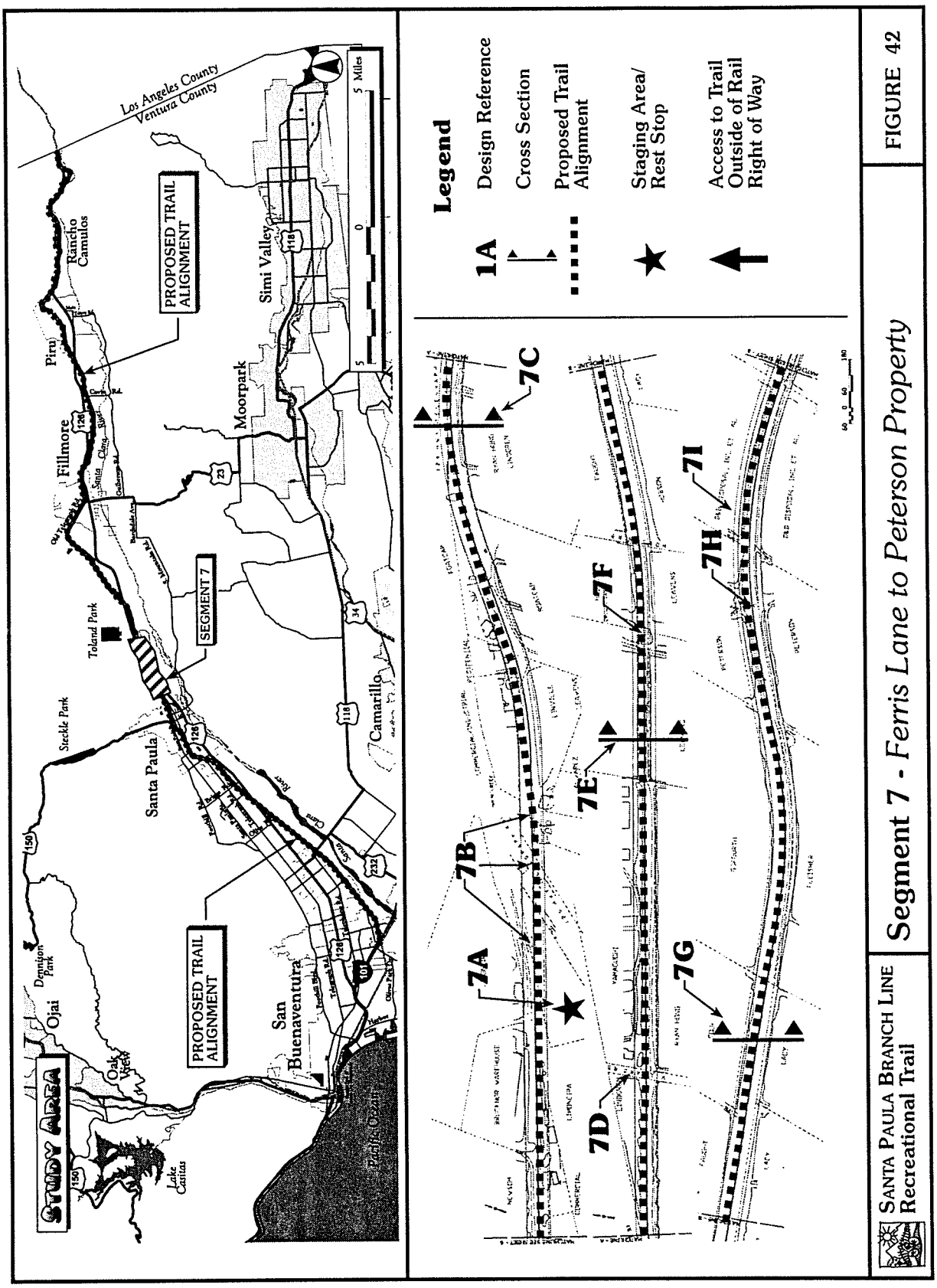


Figure 41, Section 7G


STUDY AREA
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
SEGMENT 7
Los Angeles County
Ventura County
Ojai
Oak View
Lake Casitas
Santa Paula
Fillmore
Piru
Rancho Camulos
Moorpark
Simi Valley
Toland Park
Stickle Park
Camarillo
San Buenaventura
Pacific Ocean
5 Miles
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
7A
7B
7C
7D
7E
7F
7G
7H
7I
SANTA PAULA BRANCH LINE Recreational Trail
Segment 7 - Ferris Lane to Peterson Property
FIGURE 42

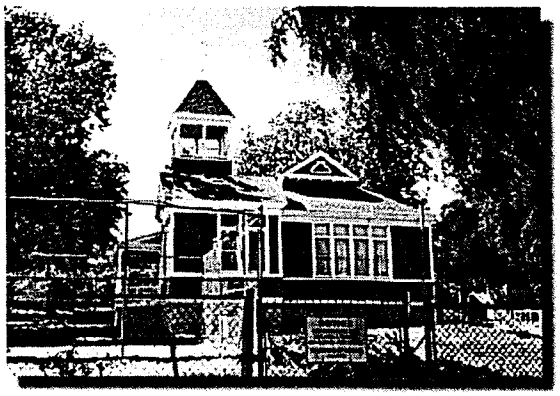
Segment 7	**Ferris Lane to Petersen Property**	
Segment Length: 2.3	Class I = 2.3 miles	#
State Highway Crossings	Highway 126 @ Haun Creek	1
Major Roadway Crossings	Telegraph at Teague McKevitt	1
Minor Roadway Crossings	Hobson Road, Willard Road	2
Private Ag Road Crossings		6
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Timber Canyon, Haun Creek, Pedersen Drainages #2	3
Minor Drainage Crossings	Pedersen Drainage #1	1
Staging Areas / Rest Stops		0
Trail Connections		0

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
7A	Hallock / 126 Staging Area	Specific Design Treatment	
7B	RR / 126 / Haun Creek Area	Specific Design Treatment	
7C	Cross Section	@ 126 / VCTC ROW	
7D	Willard	Typical Design Treatment #4	
7E	Cross Section	@ Hobson / Leavens	
7F	Timber Canyon	Typical Design Treatment #1	
7G	Cross Section	@ Cook / Lacy	
7H	Pedersen Drainage #1	Typical Design Treatment #1	
7I	Pedersen Drainage #2	Typical Design Treatment #1	

Figure 43, Summary Tables Segment 7

Segment 8 – Srerama Property to Largo Lane



Little Red School house

This segment proceeds east from the Shrerama property to Largo Lane. The Trail will be located on the north side of the tracks east of the Shrerama property passing the Little Red Schoolhouse. The Trail will continue east of the little red schoolhouse staying on the north side of the tracks and continuing to Largo Lane. At Largo Lane, the Trail will leave the VCTC right-of-way, proceed north under Highway 126, and connect with Sycamore Road. At Sycamore Road, the Trail will be a Class I facility located on the south side of the right-of-way. The Trail will follow Sycamore Road passing Bernardo Road, John Cox Drive, Boulder Creek, El Campo Street. At 7th Street, the Trail will turn south on the west side of the 7th Street right-of-way and continue south to intersect with VCTC right-of-way.

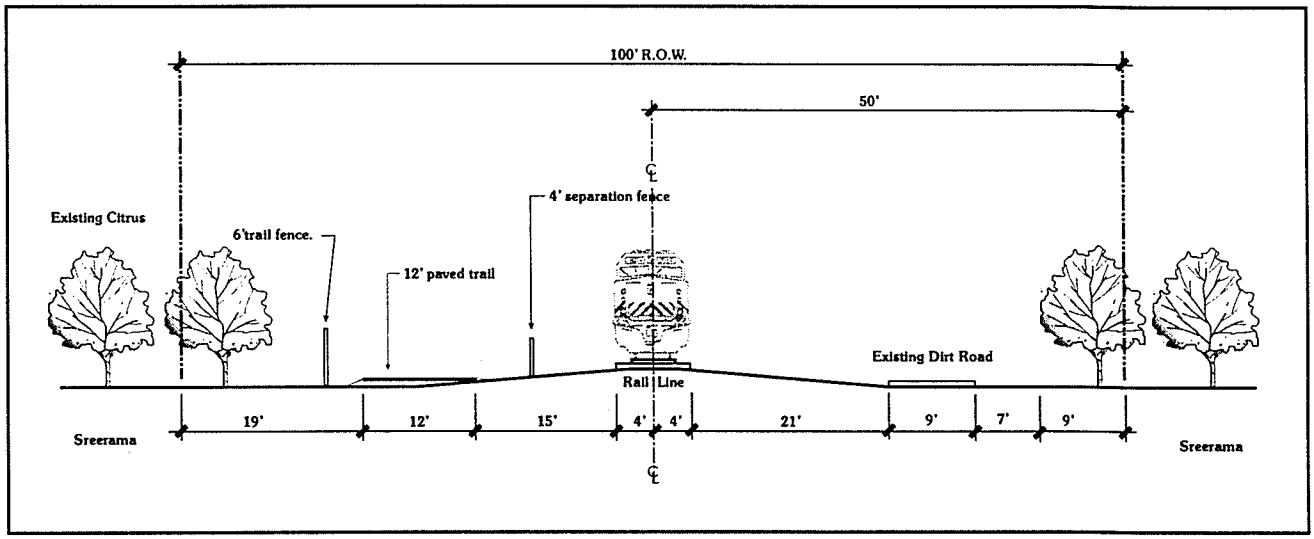


Figure 44, Section 8A

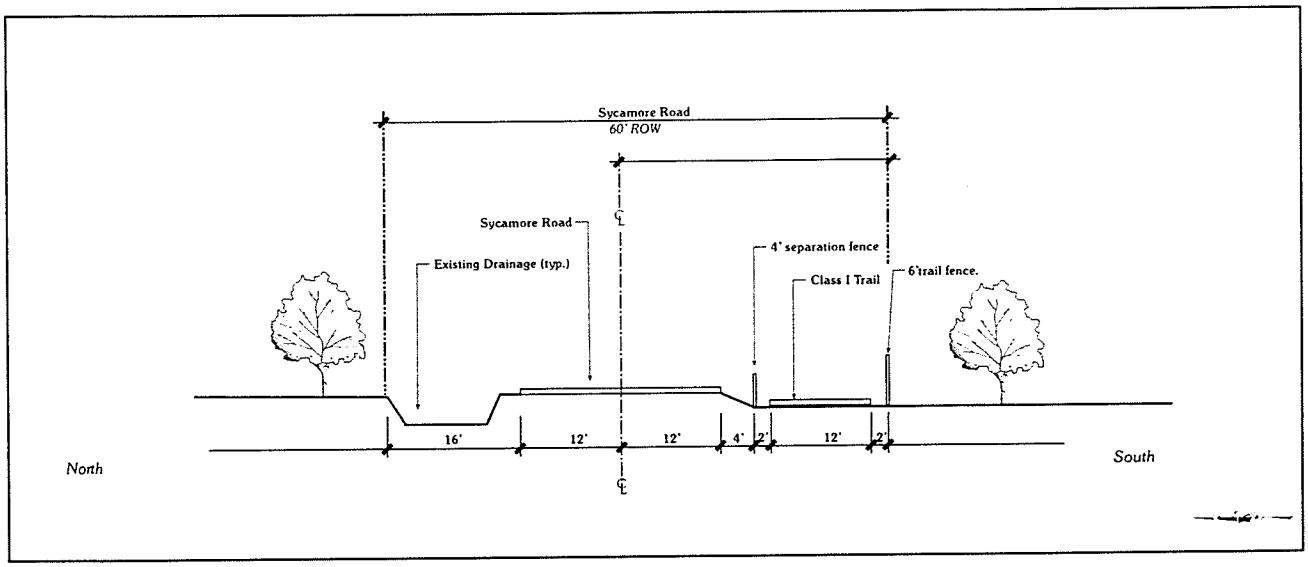


Figure 45. Sycamore Road Cross Section

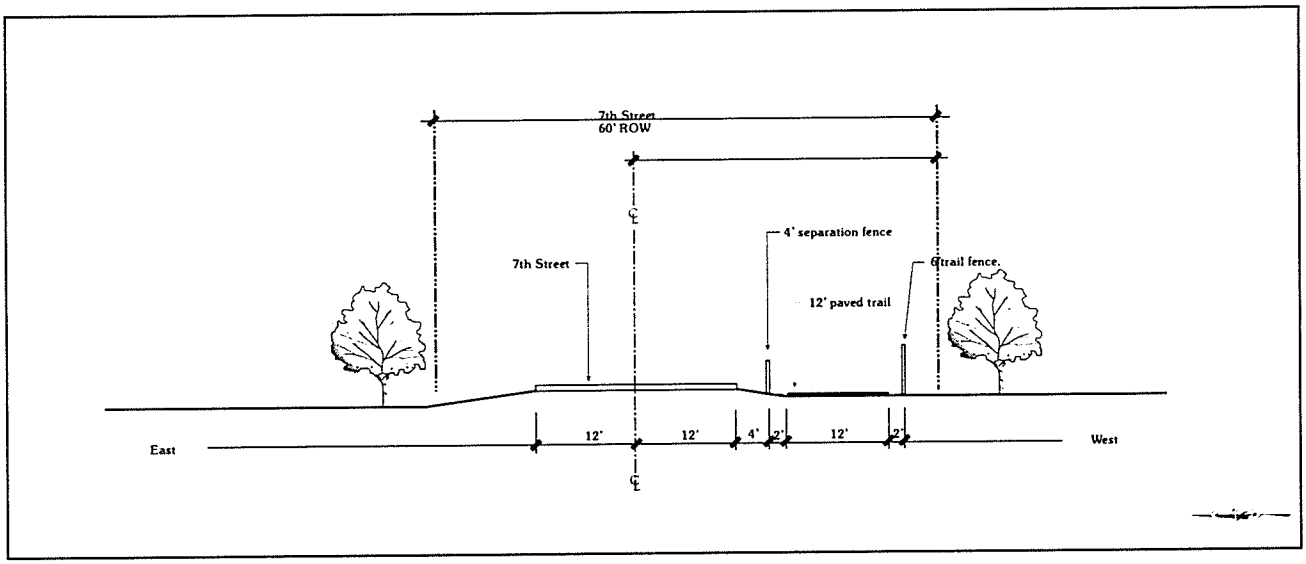
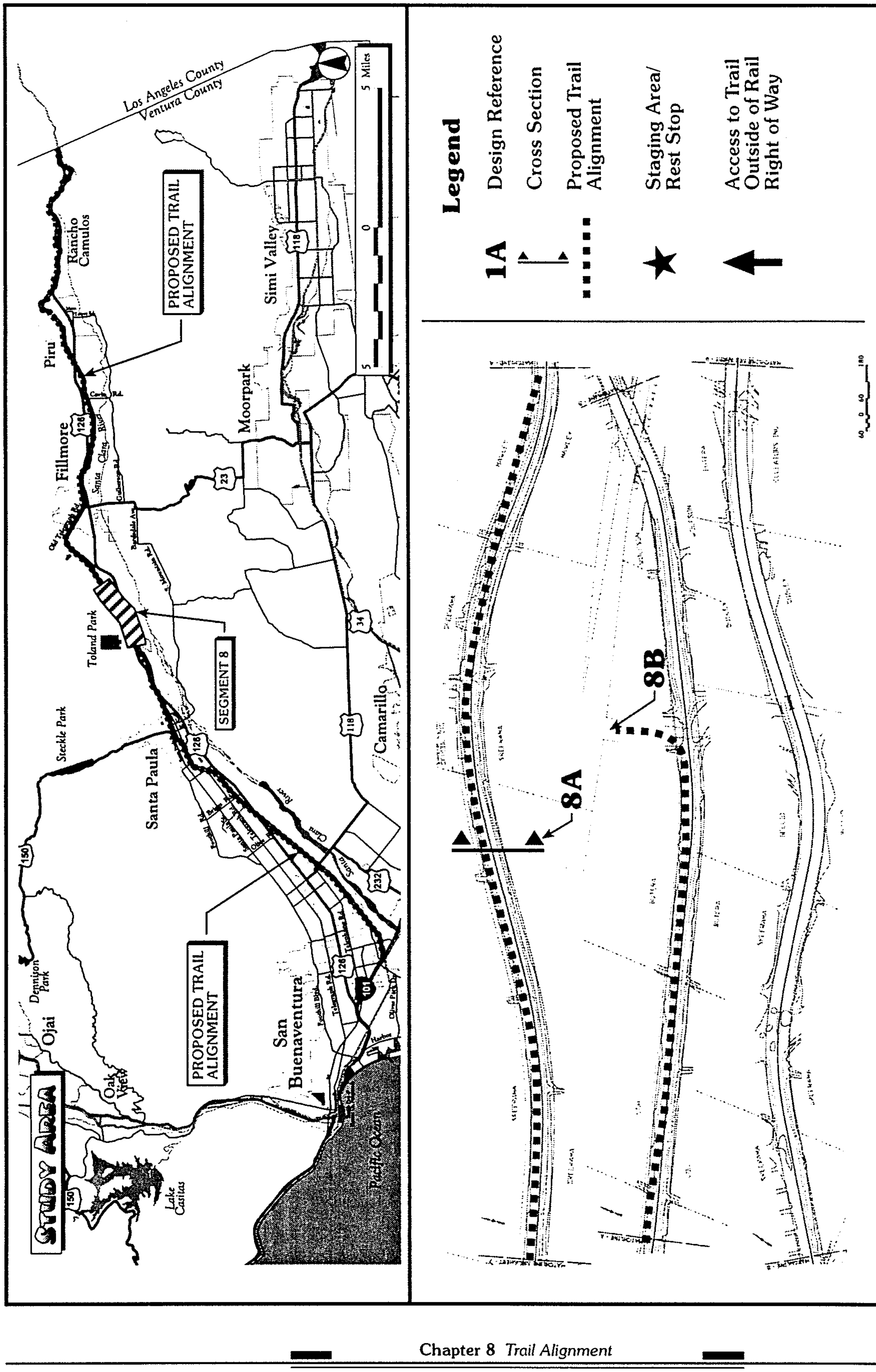


Figure 46. 7th Street



SANTA PAULA BRANCH LINE Recreational Trail

Segment 8 - *Shrerama Prop./Largo Lane/ Sycamore Rd.*

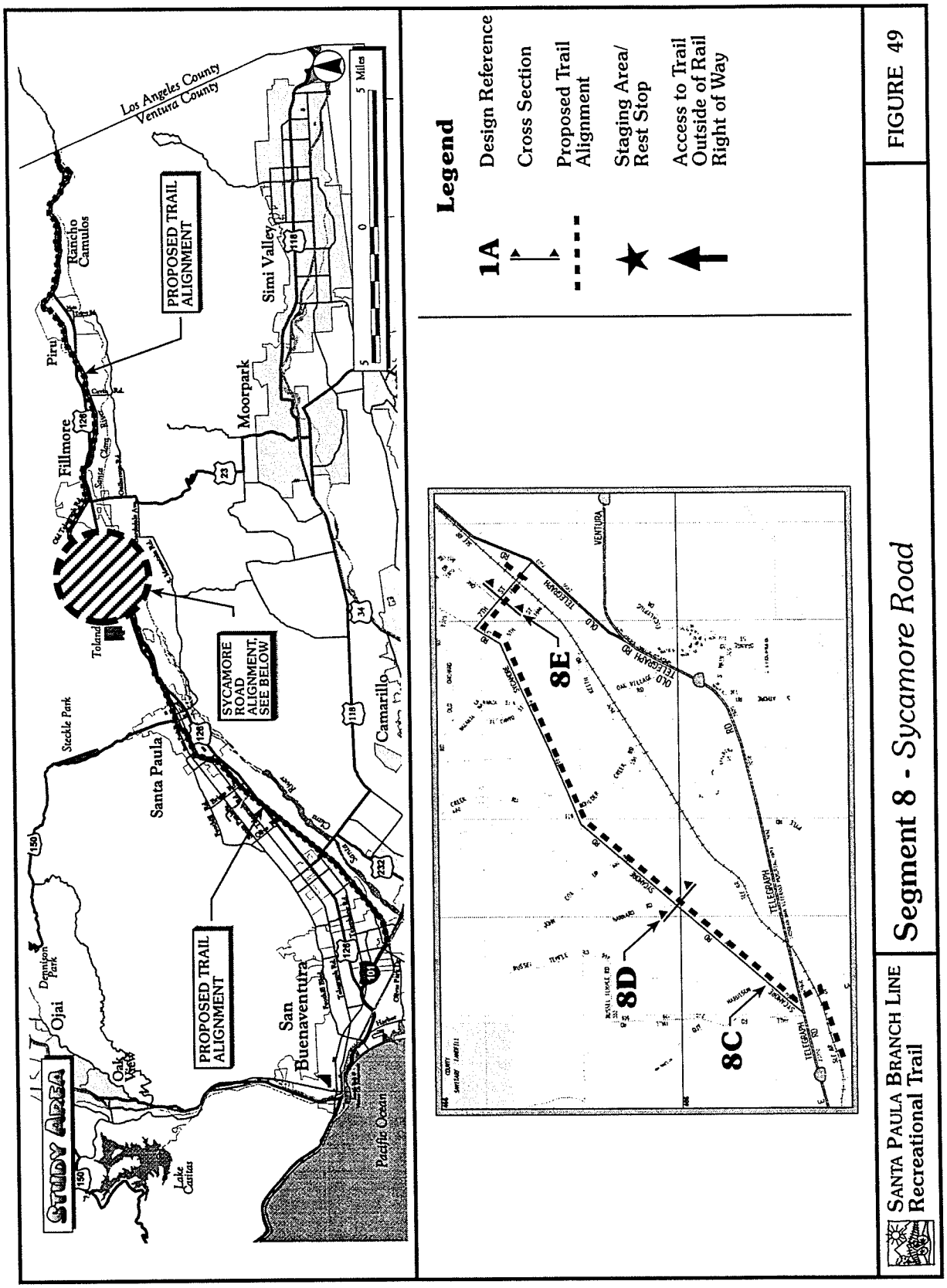
FIGURE 47

Segment 8	**Shreerama Property to Largo Lane**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings	Highway 126 @ Largo Lane	1
Major Roadway Crossings		0
Minor Roadway Crossings		0
Private Ag Road Crossings		5
At Grade Railroad Crossings	7th Street	1
Major Drainage / Barranca Crossings	Largo Lane Creek, Boulder Creek	2
Minor Drainage Crossings		0
Staging Areas/Rest Stops		0
Trail Connections	Toland Park	1

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
8A	Cross Section	@ Shrerama Property	
8B	Largo Lane / 126 Under Cross	Special Design Treatment	
8C	Cross Section	Sycamore Road w/Class I	
8D	Cross Section	7th Street w/Class I	

Figure 48, Summary Tables Segment 8



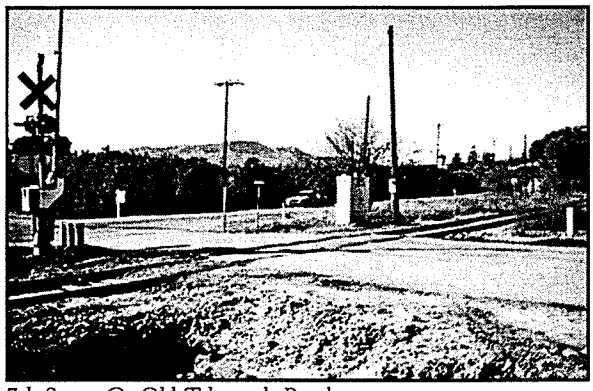
SANTA PAULA BRANCH LINE Recreational Trail

Segment 8 - *Sycamore Road*

FIGURE 49

Segment 9 - Sycamore Road to Cliff Avenue

Segment 9 will proceed from 7th Street east toward Old Telegraph Road. The Trail will cross the railroad tracks at 7th Street and turn east into VCTC right-of-way and proceed along the south side of the tracks toward Old Telegraph Road. The Trail will be located between Old Telegraph Road right-of-way and the railroad tracks east to Grand Avenue.



7th Street @ Old Telegraph Road

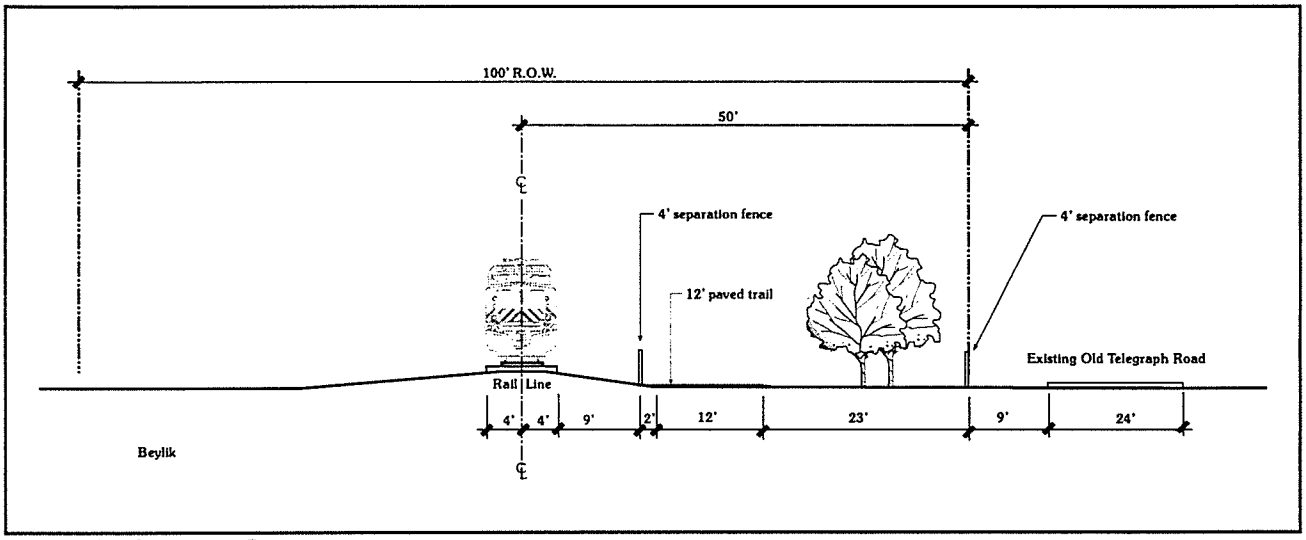
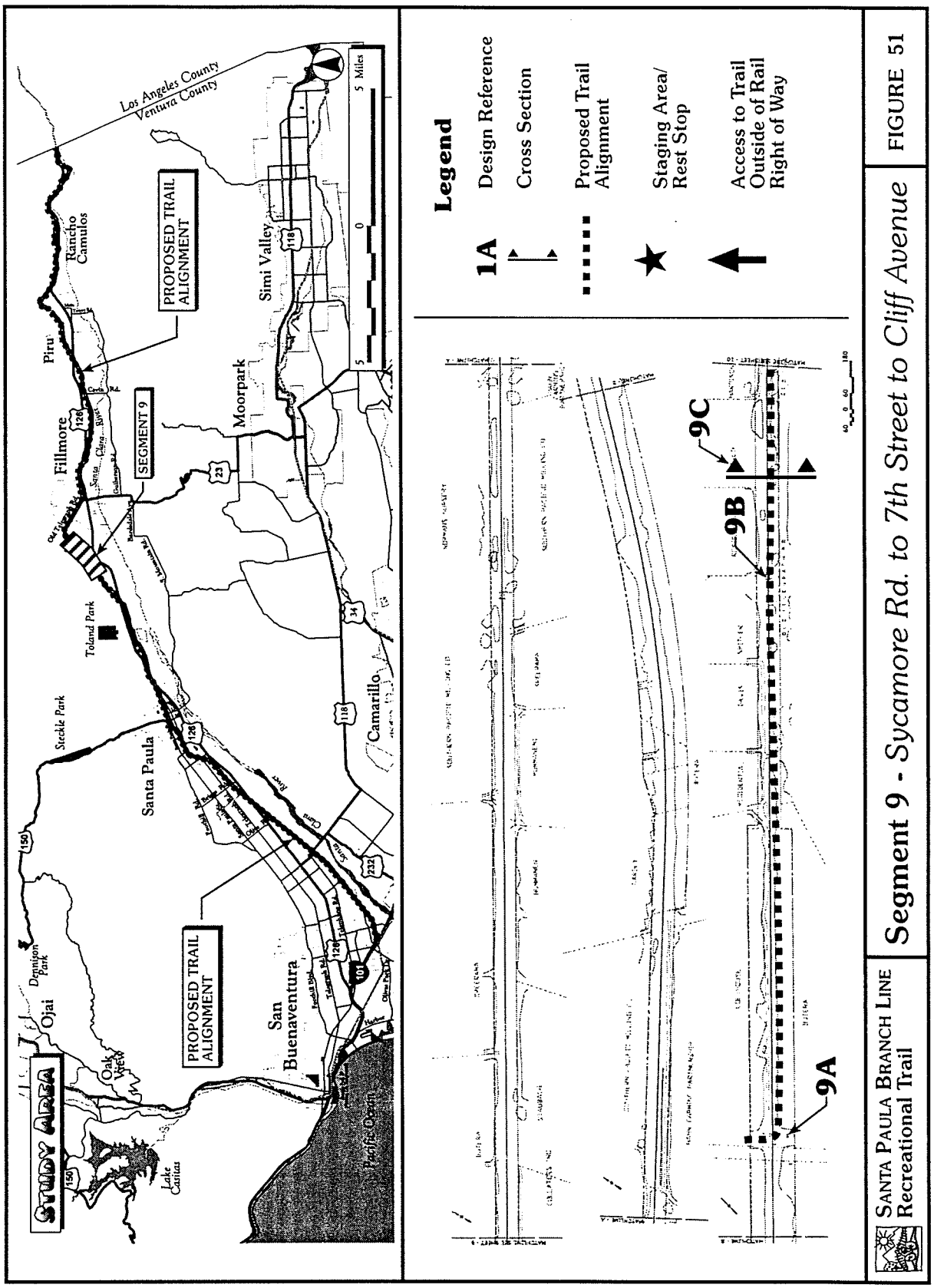


Figure 50, Section 9C


STUDY AREA
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
SEGMENT 9
Los Angeles County
Ventura County
Piru
Fillmore
Rancho Camulos
Moorpark
Simi Valley
Toland Park
Santa Paula
Steckle Park
Ojai
Oak View
Lake Casitas
Dennison Park
San Buenaventura
Pacific Ocean
Camarillo
5 Miles
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
9A
9B
9C
SANTA PAULA BRANCH LINE Recreational Trail
Segment 9 - Sycamore Rd. to 7th Street to Cliff Avenue
FIGURE 51

Segment 9	**Sycamore Road to Cliff Avenue**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings		0
Major Roadway Crossings		0
Minor Roadway Crossings	5th and 7th along Sycamore	2
Private Ag Road Crossings		2
At Grade Railroad Crossings	@ 7th Street	1
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		1
Staging Areas / Rest Stops		0
Trail Connections	Kenny Grove Park	1

Design Standard Reference Table			
Locator #	**Crossing Reference**	**Design Standard**	**Figure Reference**
9A	Railroad grade crossing @7th	Typical Design Treatment #6	
9B	Minor Drainage	Typical Design Treatment #1B	
9C	Cross Section	@ Old Telegraph Road	

Figure 52, Summary Tables Segment 9

Segment 10 – Cliff Avenue to 1st Street (Fillmore)

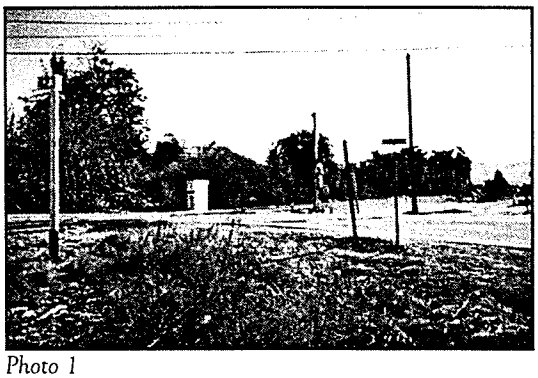


Photo 1

This segment extends east from just west of Cliff Avenue to 1st Street in Fillmore. The Trail will be located on the south side of the tracks adjacent to Old Telegraph Road crossing Cliff Avenue to Grand Avenue. At Grand Avenue, the Trail will leave the VCTC right-of-way and be located on Old Telegraph Road as a Class I or II bike lane. The Trail will cross Sespe Creek on the Old Telegraph Road bridges and continue east to Levee Road. At Levee Road, the Trail will enable a connection to the Levee Trail and Shiells Park and will leave Old Telegraph Road and rejoin the VCTC right-of-way to connect to the existing Fillmore bike trail on the south side of the tracks and continue east into Fillmore.

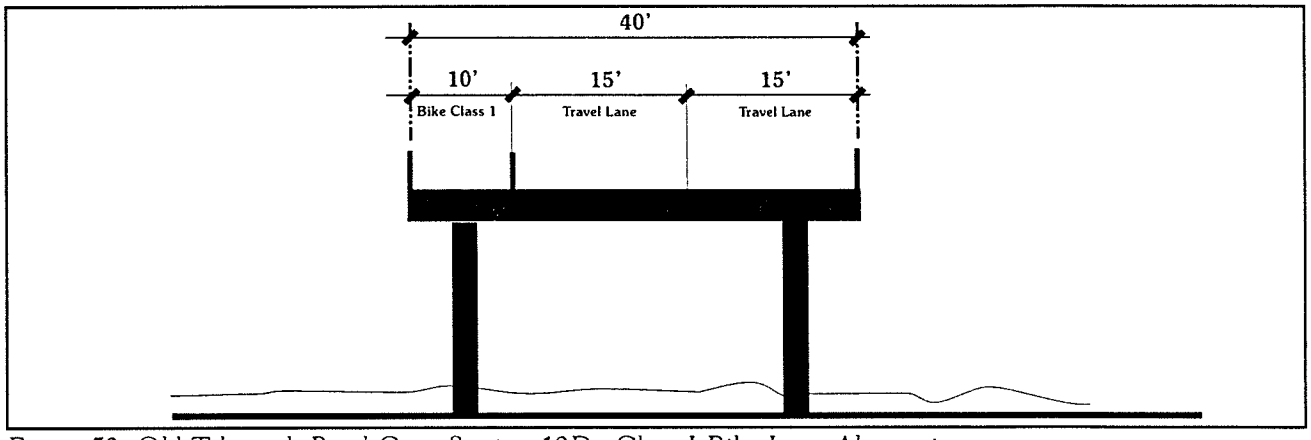


Figure 53, Old Telegraph Road Cross Section 10D - Class I Bike Lane Alternative

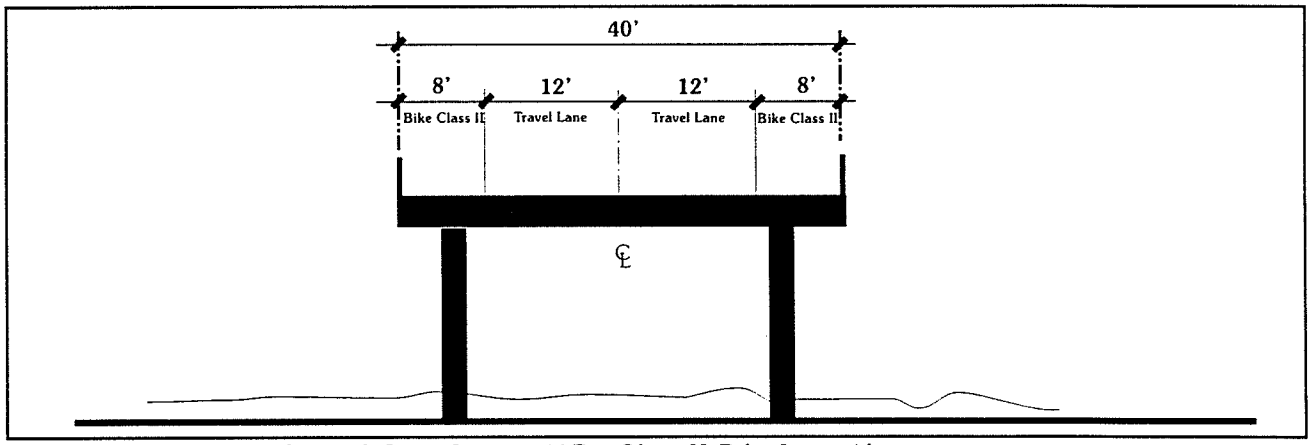
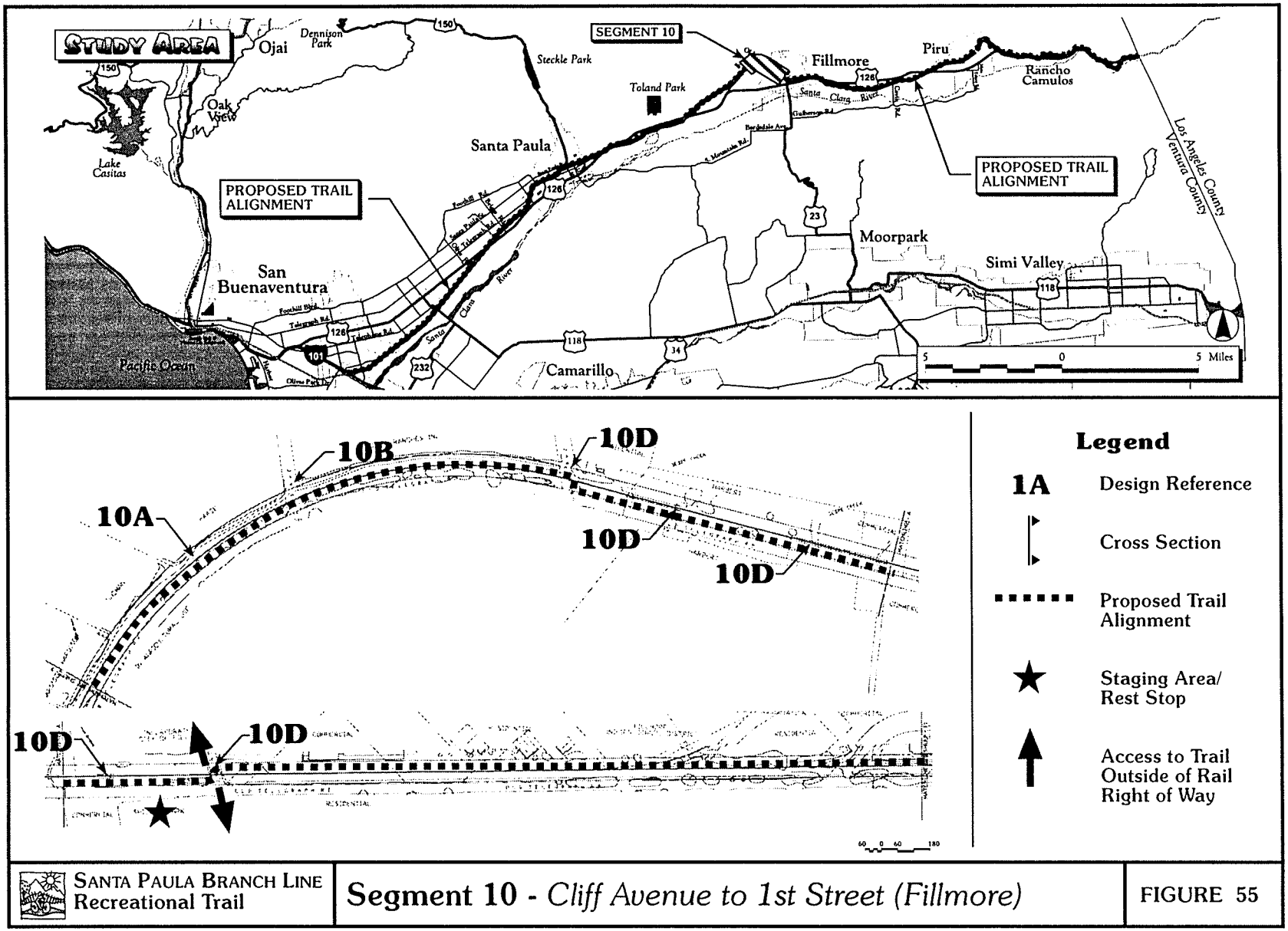


Figure 54, Old Telegraph Road Cross Section 10D - Class II Bike Lane Alternative



SANTA PAULA BRANCH LINE Recreational Trail

Segment 10 - *Cliff Avenue to 1st Street (Fillmore)*

FIGURE 55

Segment 10	**Cliff Avenue to 1st Street (Fillmore)**	
Segment Length: 1.5 miles	Class I = 1.5 miles	#
State Highway Crossing		0
Major Roadway Crossings	Old Telegraph Road	2
Minor Roadway Crossings	Cliff Avenue, Grand Avenue, Levy Road	3
Private Ag Road Crossings		1
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Sespe Creek	2
Minor Drainage Crossings	Haase Drainage	1
Staging Areas / Rest Stops	Shiells Park	1
Trail Connections	Existing Fillmore Bike Trail, Future Levy Trail, and Shiels Park	3

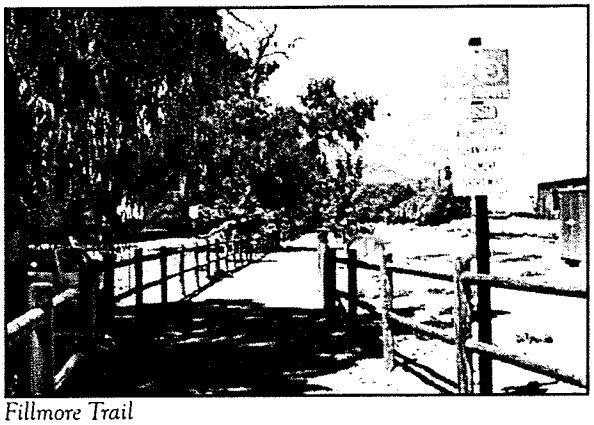
Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
10A	Minor drainage @ Haase Property	Typical Design Treatment #1	
10B	Cliff Avenue	Typical Design Treatment #4	
10C	Transition to Old Telegraph Road	Specific Design Treatment	
10D	Cross Section	Old Telegraph Road	
10E	Transition to existing Fillmore Trail @ Levee Drive	Specific Design Treatment	

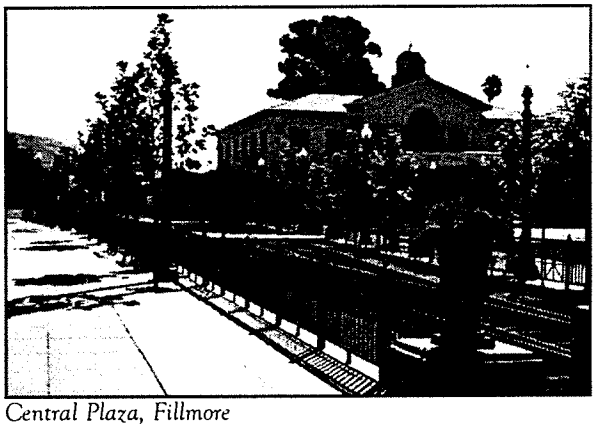
Figure 56, Summary Tables Segment 10

Segment 11 - 1st Street to Highway 126 (East Fillmore)

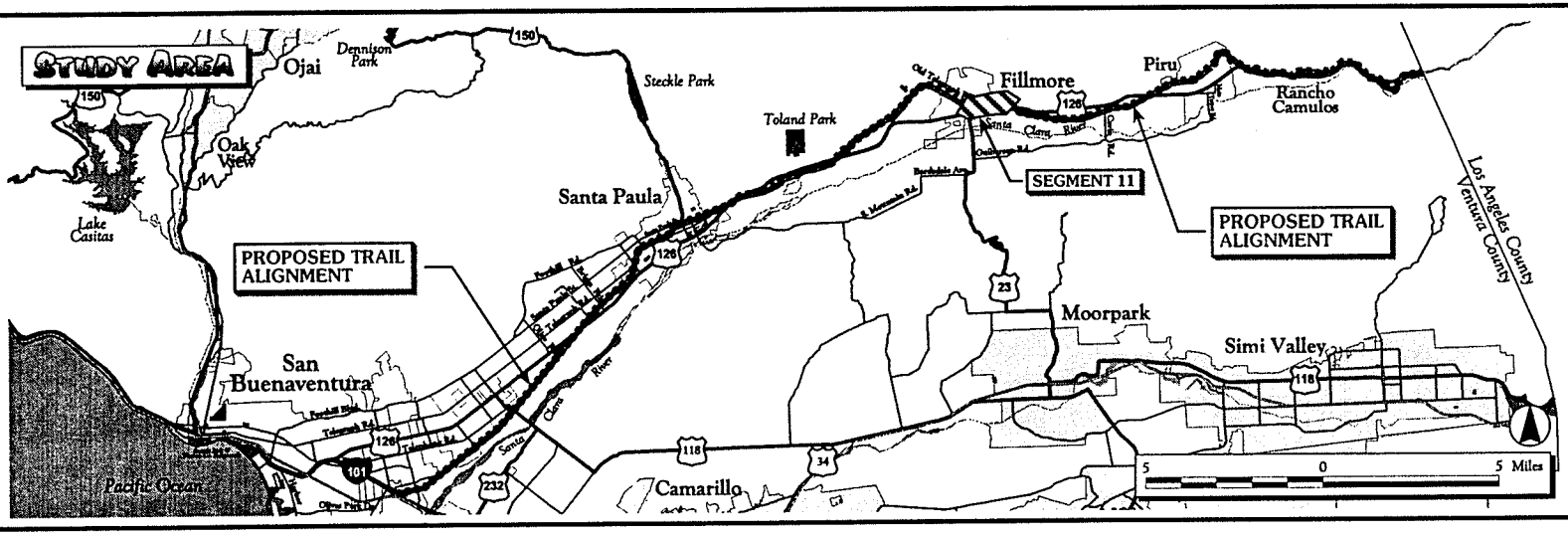
This segment proceeds east from A Street through Fillmore toward the intersection of the rail right-of-way with Highway 126 east of Fillmore. The Trail will be located on the south side of the tracks and continue east across A Street and into central Fillmore. The Trail will cross Central Avenue and proceed into the historic depot area. The Trail will be designed to conform with Fillmore's downtown plan, provide access and user services in this area. The Trail may be located on both sides of the rail right-of-way through this central location. At Mountain View Street, the Trail transitions from the Depot Area design to the south side of the tracks and continues east toward Pole Creek. At Pole Creek, an optional Trail alignment proposes the Trail to cross under Highway 126 at Pole Creek following Pole Creek south to the Santa Clara River, then turn east toward Fish Hatchery Road. This alignment will be reviewed in the environmental document. Alternatively, the Trail could continue over Pole Creek within the VCTC right-of-way, south of the tracks, east toward Highway 126.

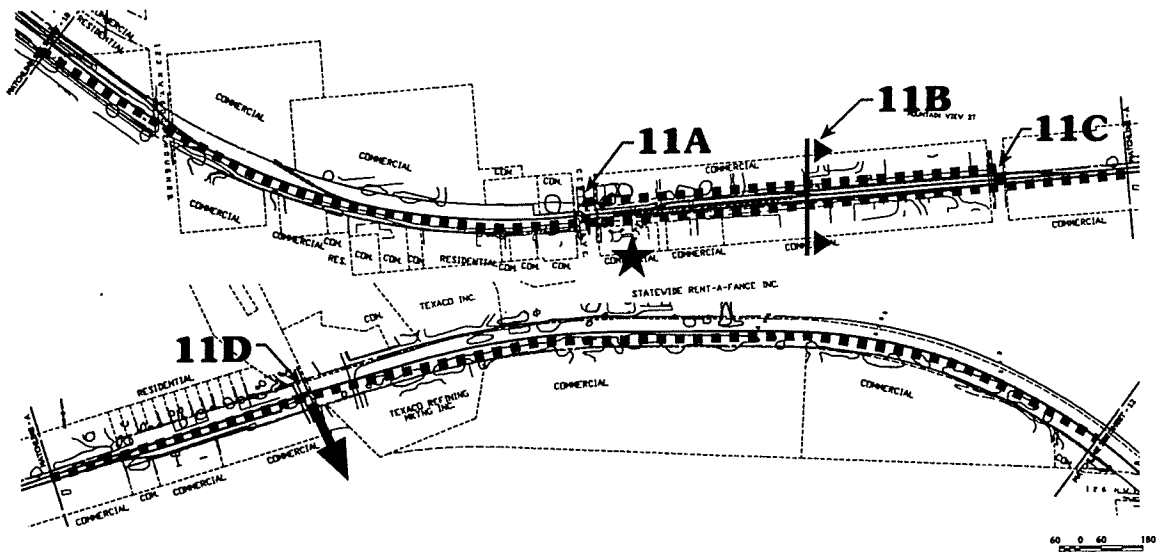


Fillmore Trail



Central Plaza, Fillmore





Legend

1A	Design Reference
	Cross Section
	Proposed Trail Alignment
★	Staging Area/ Rest Stop
	Access to Trail Outside of Rail Right of Way

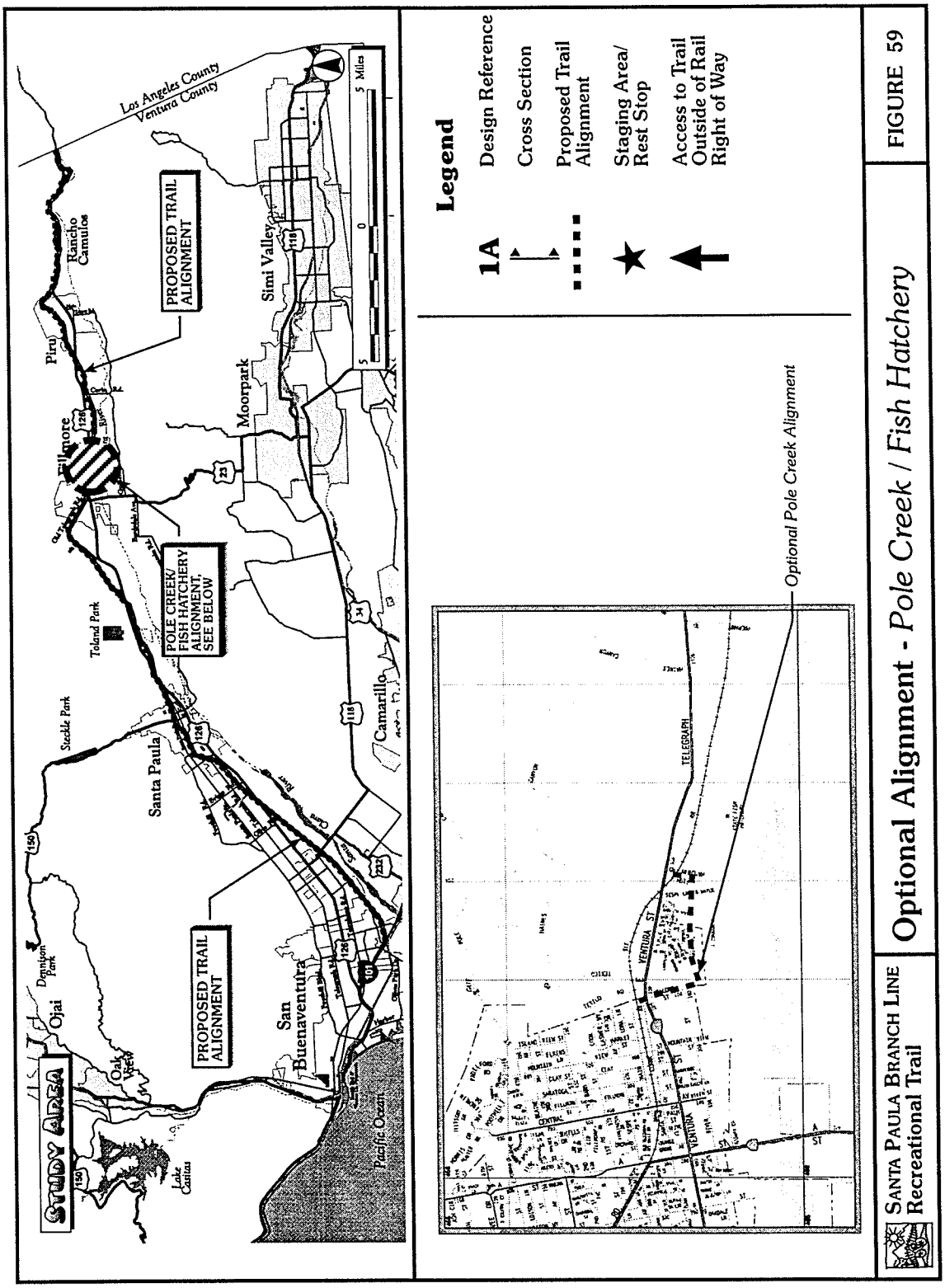
SANTA PAULA BRANCH LINE Recreational Trail	**Segment 11-*1st Street(Fillmore) to Hwy 126@E.Fillmore***	FIGURE 57

Segment 11	**1st Street to Highway 126 (East Fillmore)**	
Segment Length: 1.5 miles	Class I = 1.5 miles	#
State Highway Crossings		0
Major Roadway Crossings	'A' Street, Central Avenue	2
Minor Roadway Crossings	Mountain View Street	1
Private Ag Road Crossings		1
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Pole Creek	1
Minor Drainage Crossings		0
Staging Areas / Rest Stops	Fillmore Train Depot	1
Trail Connections	Various Destinations in Fillmore	

Design Standard Reference Table

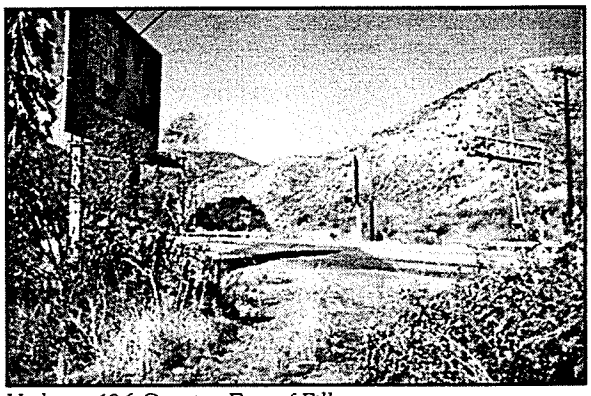
Locator #	Crossing Reference	Design Standard	Figure Reference
11A	Central – Trail splits to both sides	Typical Design Treatment #4 & #6	
11B	Mountain View	Typical Design Treatment #4	
11C	Pole Creek	Typical Design Treatment #2	
11D	Pole Creek south to under Hwy. 126 Option		

Figure 58. Summary Tables Segment 11


Los Angeles County
Ventura County
PROPOSED TRAIL ALIGNMENT
POLE CREEK/ FISH HATCHERY ALIGNMENT, SEE BELOW
PROPOSED TRAIL ALIGNMENT
STUDY AREA
Rancho Camulos
Piru
Fillmore
Moorpark
Simi Valley
Toland Park
Santa Paula
Ojai
Oak View
San Buenaventura
Camarillo
Pacific Ocean
Lake Casitas
0
5
5 Miles
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
Optional Pole Creek Alignment
SANTA PAULA BRANCH LINE Recreational Trail
Optional Alignment - *Pole Creek / Fish Hatchery*
FIGURE 59

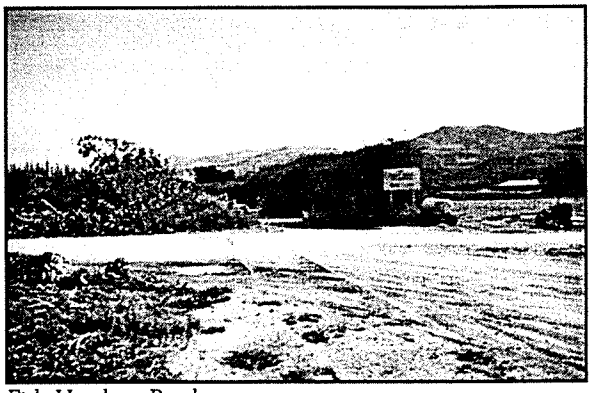
Segment 12 – Highway 126 (East Fillmore) to Elkins Ranch

This segment runs east from the Highway 126 crossing to Elkins Ranch. The Trail will be located on the south side of the tracks as it approaches from the west toward Highway 126. The Trail will then cross Highway 126 and the railroad tracks at a grade separated structure, and proceed east within the VCTC right-of-way on the north side of the tracks. The Trail will continue east crossing Fish Hatchery Road and numerous private agricultural roads.

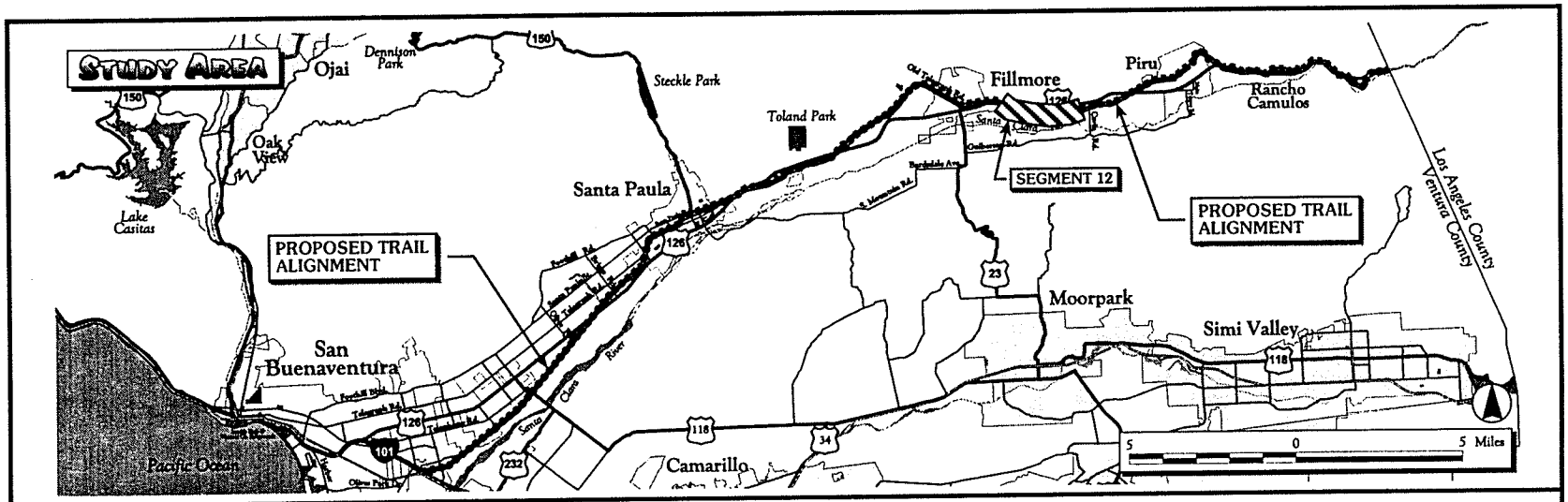


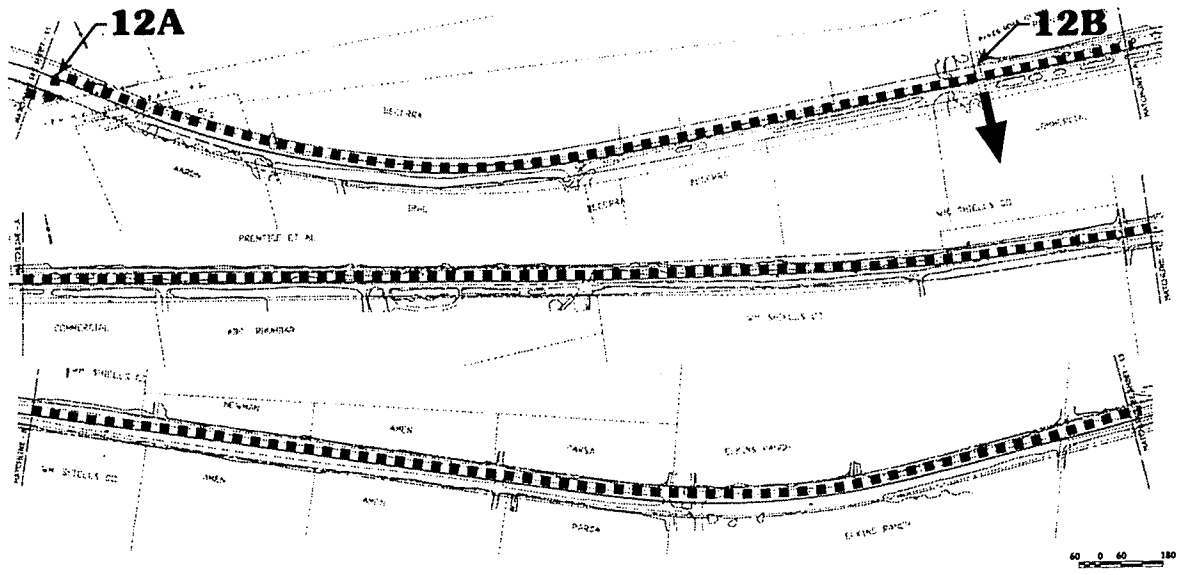
Highway 126 Crossing East of Fillmore

If Pole Creek/Fish Hatchery Road option is selected, the trail will rejoin VCTC ROW @ Fish Hatchery Road and proceed east on the north side of the tracks.



Fish Hatchery Road





Legend

1A	Design Reference
	Cross Section
	Proposed Trail Alignment
★	Staging Area/ Rest Stop
	Access to Trail Outside of Rail Right of Way

SANTA PAULA BRANCH LINE Recreational Trail

Segment 12 - *Hwy 126 @ E. Fillmore to Elkins Ranch*

FIGURE 60

Segment 12	**Highway 126 (East Fillmore) to Elkins Ranch**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings	Highway 126 East of Fillmore	1
Major Roadway Crossings		0
Minor Roadway Crossings		0
Private Ag Road Crossings		6
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		0
Staging Areas / Rest Stops		0
Trail Connections		0

Design Standard Reference Table

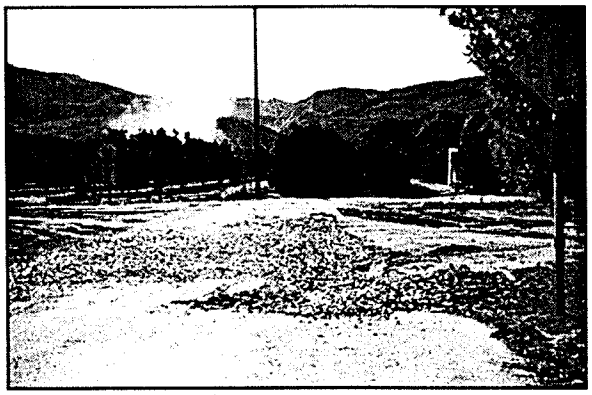
Locator #	Crossing Reference	Design Standard	Figure Reference
12A	126 Crossing	Typical Design Treatment #5	
12B	Fish Hatchery Road	Typical Design Treatment #4	

Figure 61, Summarty Tables Segment 12

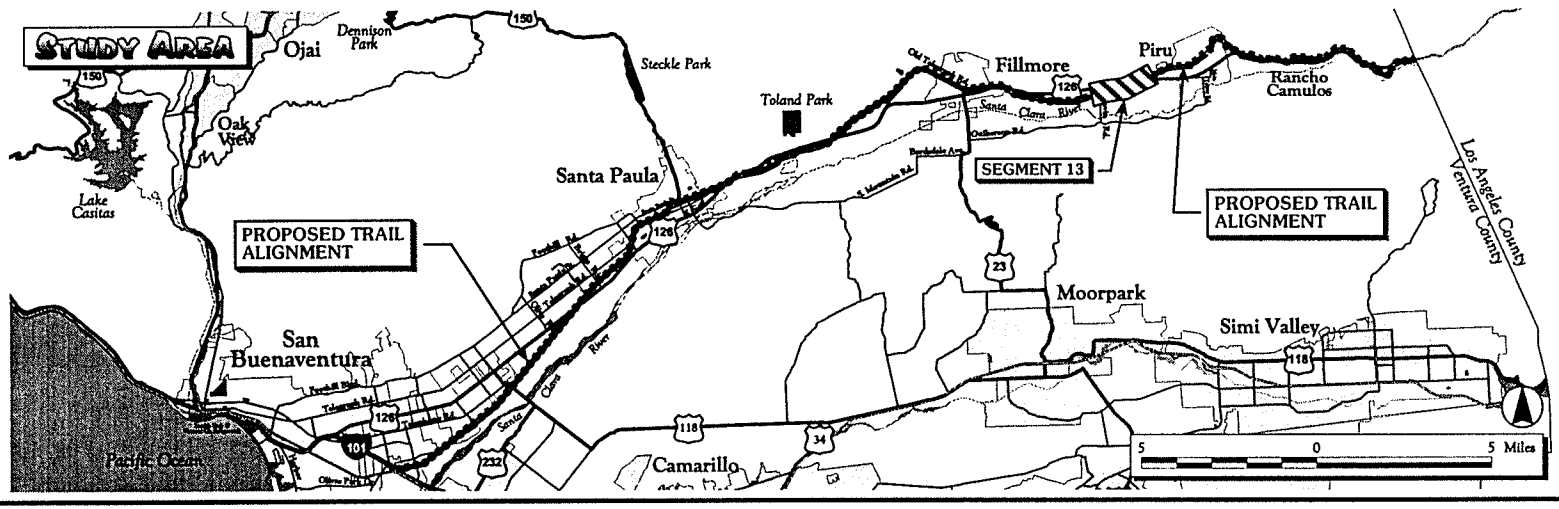
Segment 13 - Elkins Ranch to Limoneira Property

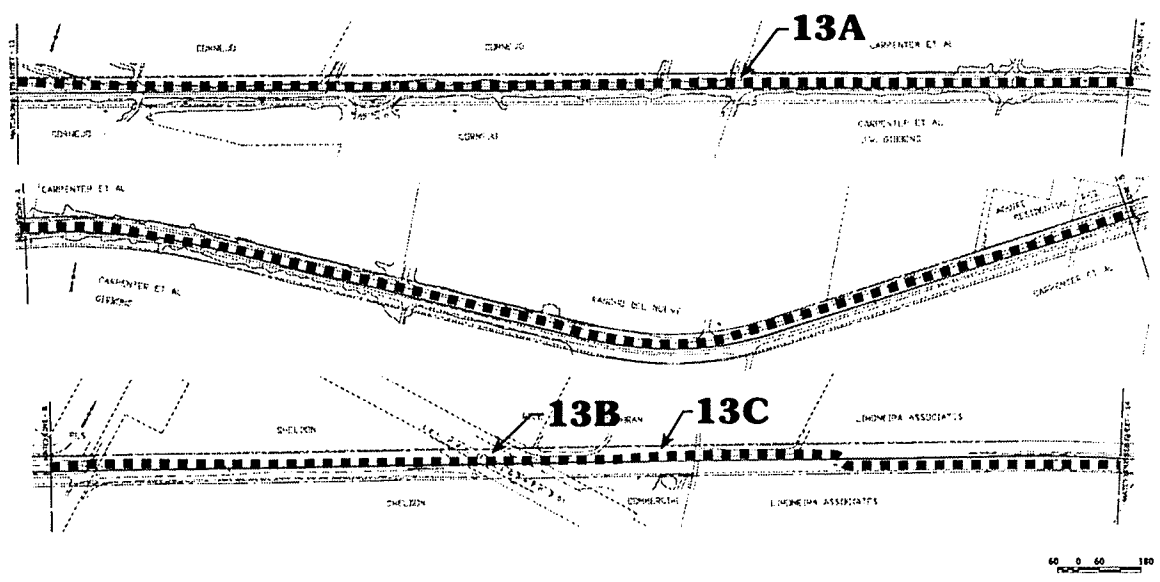
This segment proceeds east from Elkins Ranch to Limoneira property east of the Highway 126 crossing. The Trail will be located on the north side of the tracks crossing Calvin Road and numerous private agricultural road crossings. At Highway 126, the Trail will be located north of the tracks and cross over Highway 126 using a grade separated structure. The Trail will then proceed east and cross Hopper Canyon with a new structure. Just east of Hopper Canyon, the Trail will cross the railroad tracks at grade and continue east on the south side of the tracks.

Highway 126 Crossing



Hopper Canyon Road Crossing





Legend

- **1A** Design Reference
- Cross Section
- Proposed Trail Alignment
- Staging Area/ Rest Stop
- Access to Trail Outside of Rail Right of Way

SANTA PAULA BRANCH LINE Recreational Trail

Segment 13 - *Elkins Ranch to Limoneira Property*

FIGURE 62

Segment 13	**Elkins Ranch to Limoneira Property**	
Segment Length: 2.2 miles	Class I = 2.2 miles	#
State Highway Crossings	Highway 126 @ Hopper Canyon	1
Major Roadway Crossings		0
Minor Roadway Crossings	Cavin Road	1
Private Ag Road Crossings		8
At Grade Railroad Crossings	East of Hopper Canyon	1
Major Drainage / Barranca Crossings	Hopper Canyon	1
Minor Drainage Crossings		2
Staging Areas / Rest Stops		0
Trail Connections		0

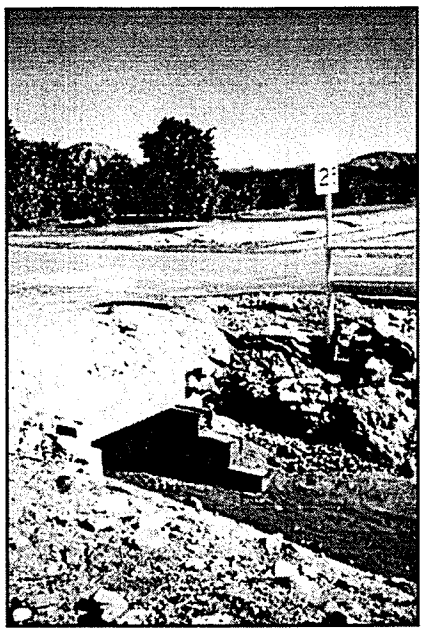
Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
13A	Cavin Road	Typical Design Treatment #4	
13B	126 crossing	Typical Design Treatment #5	
13C	Hopper Canyon crossing	Typical Design Treatment #2	

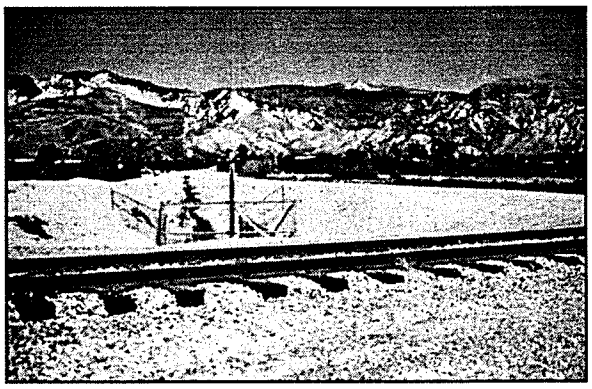
Figure 63, Summary Tables Segment 13

Segment 14 - Sunny Woods Property to Real Wash Road

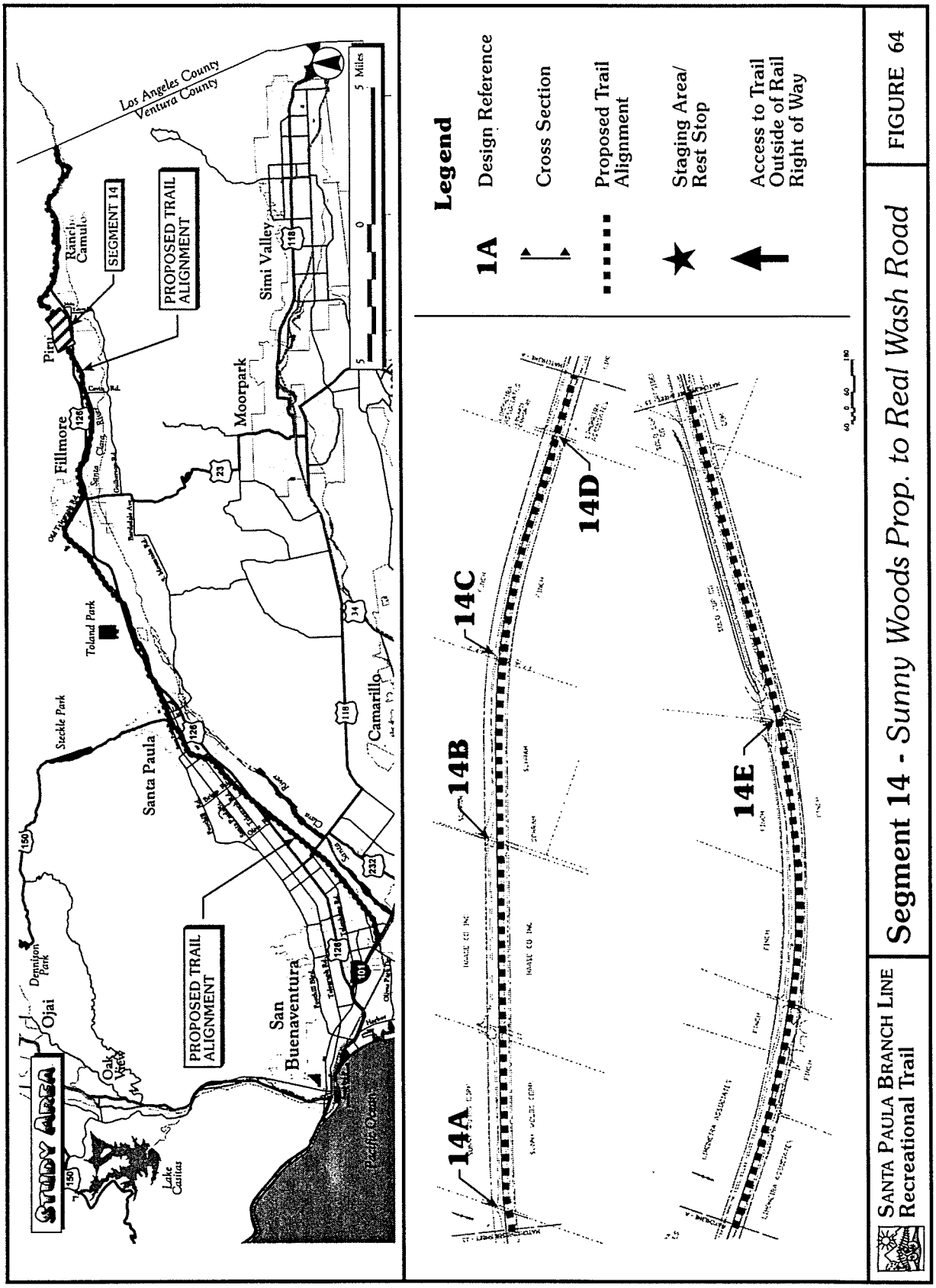
This segment runs east from the Sunny Woods property to east of Real Wash Road. The Trail will be located on the south side of the tracks within the VCTC right-of-way and continue past Sunny Woods Road, Schram Road, Camulos Avenue, Edwards Canyon Road, and Real Wash Road. The Trail will continue east toward Piru on the south side of the tracks.



Pacific Road Crossing



Segment 14


Los Angeles County
Ventura County
SEGMENT 14
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
STUDY AREA
Piru
Fillmore
Moorpark
Simi Valley
Santa Paula
San Buenaventura
Camarillo
Ojai
Oak View
Lake Casitas
Pacific Ocean
Toland Park
Steckle Park
Rancho Camulos
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
14A
14B
14C
14D
14E
SANTA PAULA BRANCH LINE Recreational Trail
Segment 14 - Sunny Woods Prop. to Real Wash Road
FIGURE 64

Segment 14	Sunny Woods Property to Real Wash Road	
Segment Length: 1.5 miles	Class I = 1.5 miles	#
State Highway Crossings		0
Major Roadway Crossings		0
Minor Roadway Crossings	Camulos Ave., Edwards Canyon, Real Wash Road	3
Private Ag Road Crossings		7
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings	Real Wash Drainage	1
Minor Drainage Crossings	Haase Drainage	1
Staging Areas / Rest Stops		0
Trail Connections		0

Design Standard Reference Table			
Locator #	**Crossing Reference**	**Design Standard**	**Figure Reference**
14A	Paved sunny woods	Typical Design Treatment #4	
14B	Paved schram	Typical Design Treatment #4	
14C	Camulos Avenue	Typical Design Treatment #4	
14D	Edwards Canyon Road	Typical Design Treatment #4	
14E	Real Wash	Typical Design Treatment #2	

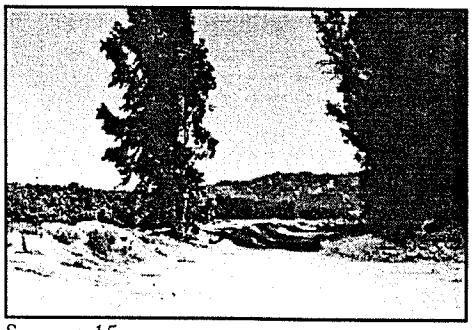
Figure 65, Summary Tables Segment 14

Segment 15 - Real Wash Road to Center Street

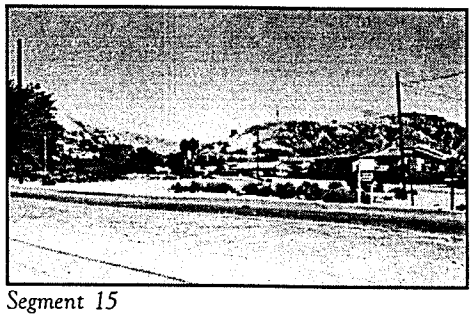
This segment will continue east from Main Street to east of Center Street. Approaching the Community of Piru from the west, the Trail will be located on the south side of the tracks crossing a rail spur to a commercial packing plant, continuing east across Main Street adjacent to Via Fustero Road to Center Street. At Center Street, the Trail will leave the right-of-way, continue southeast on Center Street as a Class II facility. The Trail will continue on one of two alignment options.

Option 1: Using the old Center Street bridge, subject to structurability verification. This option would enable a class I trail over the bridge.

Option 2: Using the new Center Street bridge. This option would require a class II trail.



Segment 15



Segment 15

As Center Street rejoins the right-of-way, the Trail will continue east again with two alignment options.

Option 1: Rejoin VCTC right-of-way west of the residential encroachments.

Option 2: Continue east on Center Street and rejoin the VCTC right-of-way east of the Lynch property.

In the community of Piru, the Trail will be consistent with the Piru Community Enhancement Plan with a possible staging area at the Piru Town Square. Connections to Warring Park will also be made. Refer to design description in the design section of this document. The Center Street alignment avoids a new structural crossing of Piru Creek.

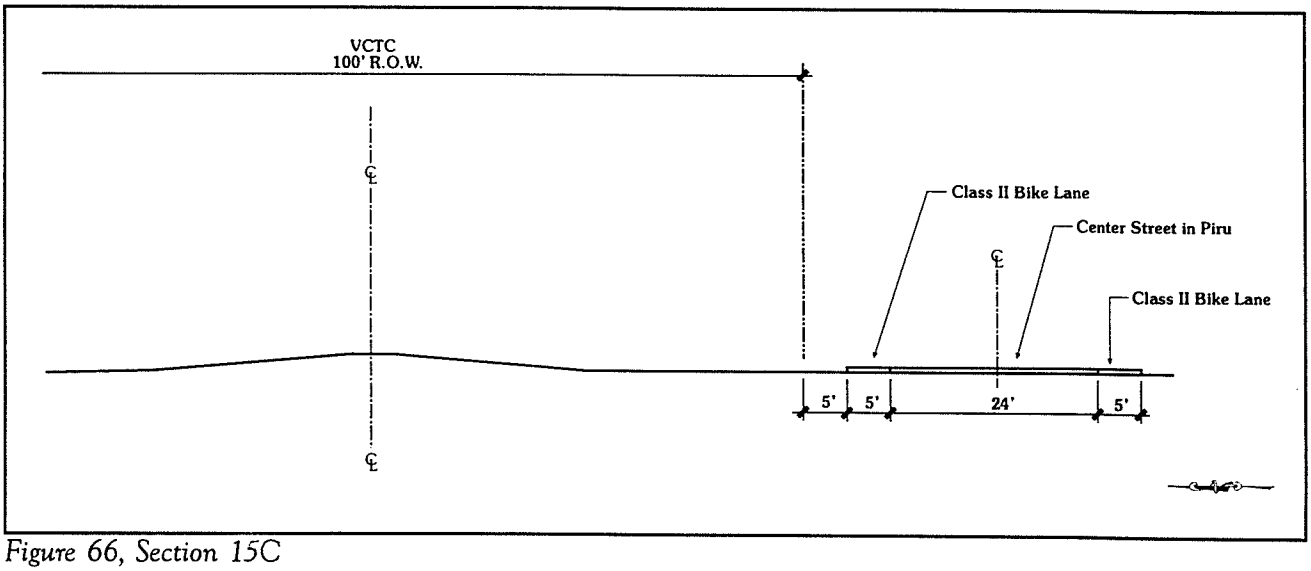
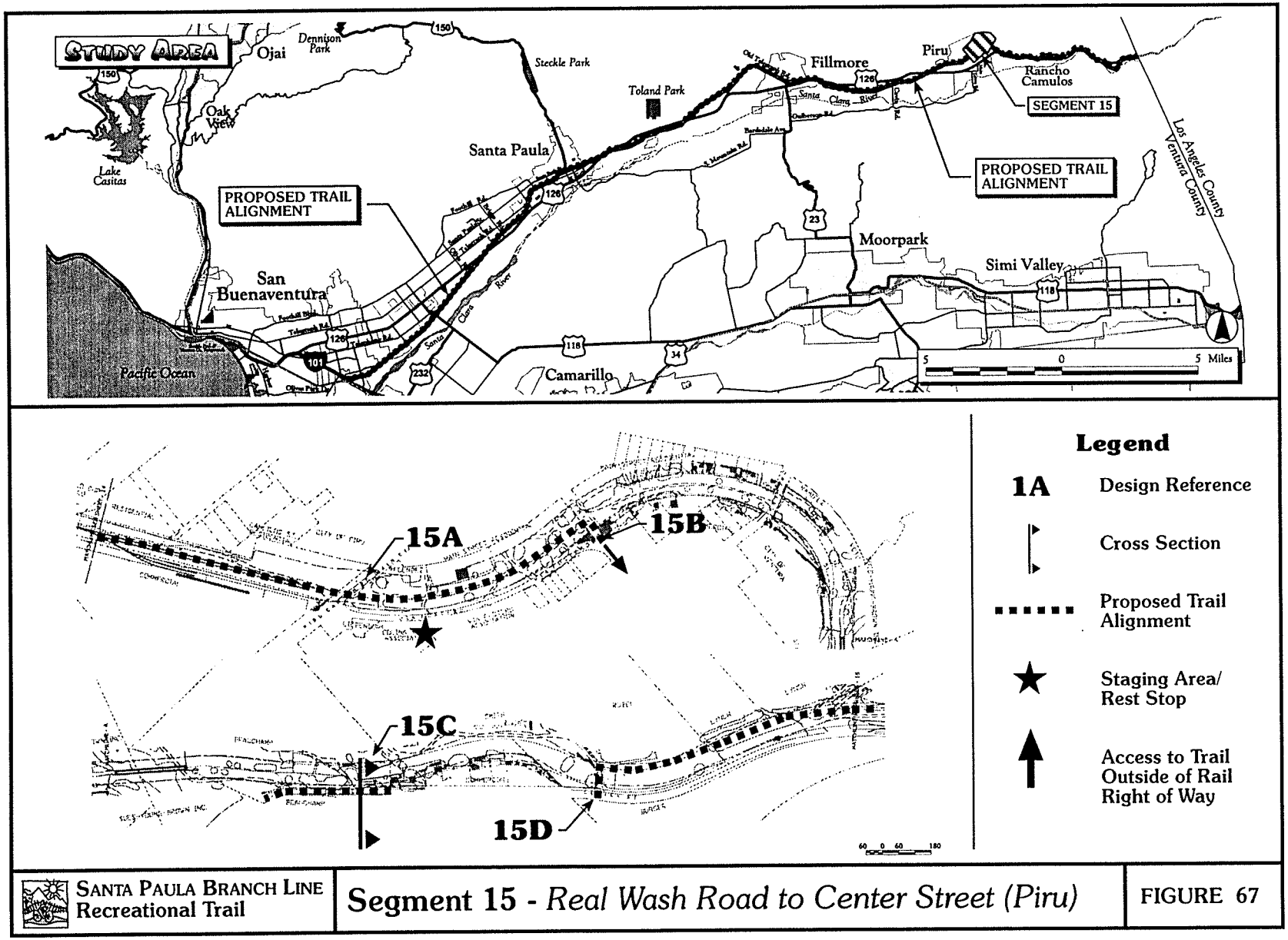


Figure 66, Section 15C



SANTA PAULA BRANCH LINE Recreational Trail

Segment 15 - *Real Wash Road to Center Street (Piru)*

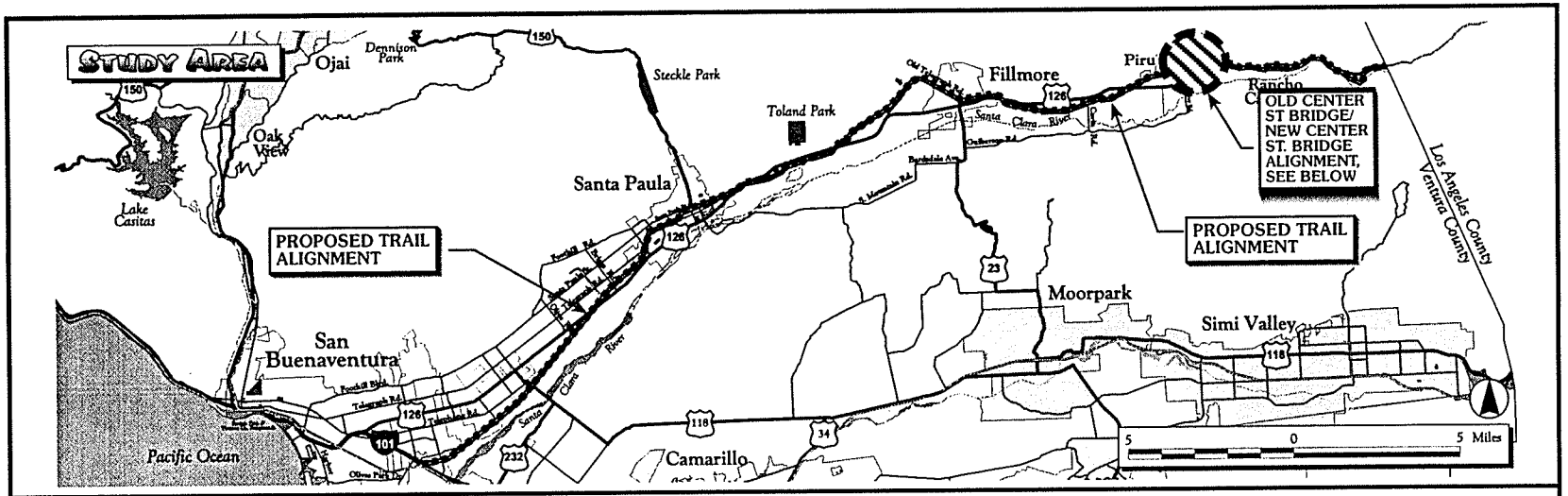
FIGURE 67

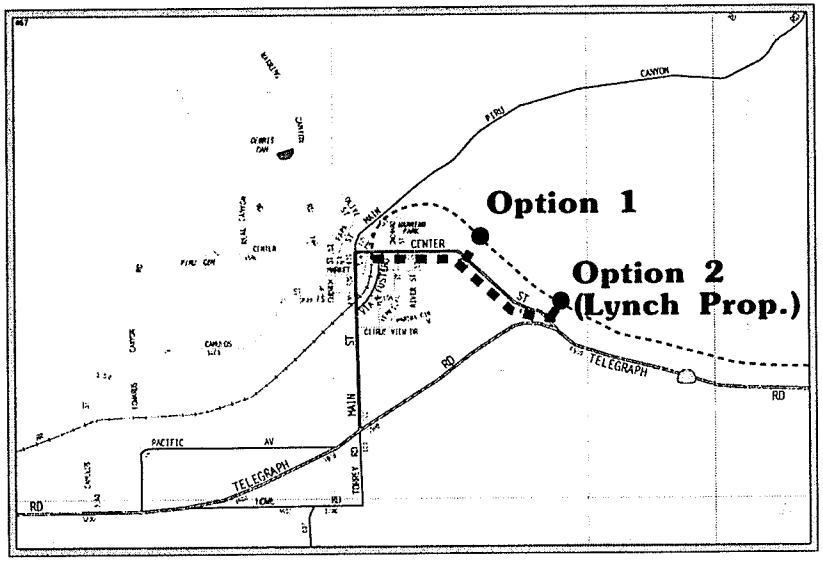
Segment 15	**Real Wash Road to Center Street**	
Segment Length: 1.1 miles	Class I = .7 miles Class II = .4 miles	#
State Highway Crossings		0
Major Roadway Crossings	Main Street	1
Minor Roadway Crossings	Center Street, Orchard Street	2
Private Ag Road Crossings		3
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		0
Staging Areas / Rest Stops	Piru Train Depot Central Plaza	1
Trail Connections	Warring Park, Piru Community	2

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
15A	Main Street	Typical Design Treatment #4	
15B	Via Fustero @ Center	Typical Design Treatment #4	
15C	Cross Section	Center Street @ ROW	
15D	Transition Center Street to ROW	Typical Design Treatment #6	

Figure 68, Summary Tables Segment 15





Legend

1A	Design Reference
	Cross Section
	Proposed Trail Alignment
★	Staging Area/ Rest Stop
	Access to Trail Outside of Rail Right of Way
	Railroad Extension

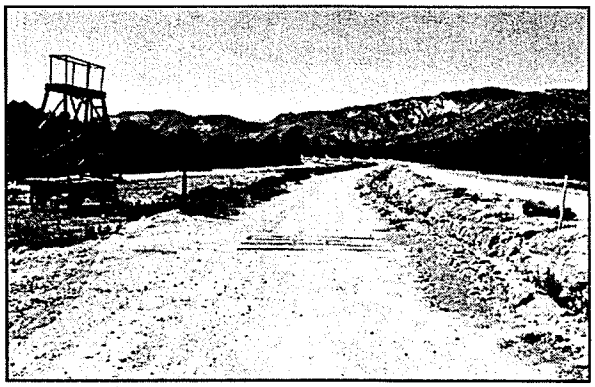
SANTA PAULA BRANCH LINE
Recreational Trail

Optional Alignment - *Center Street*

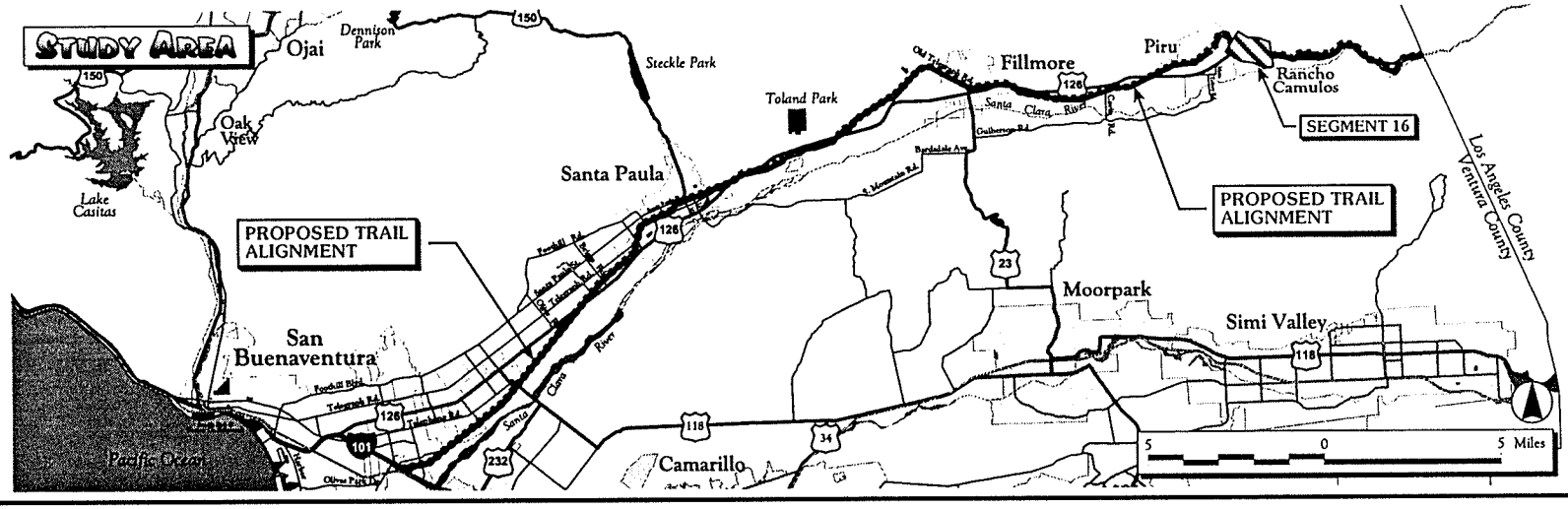
FIGURE 69

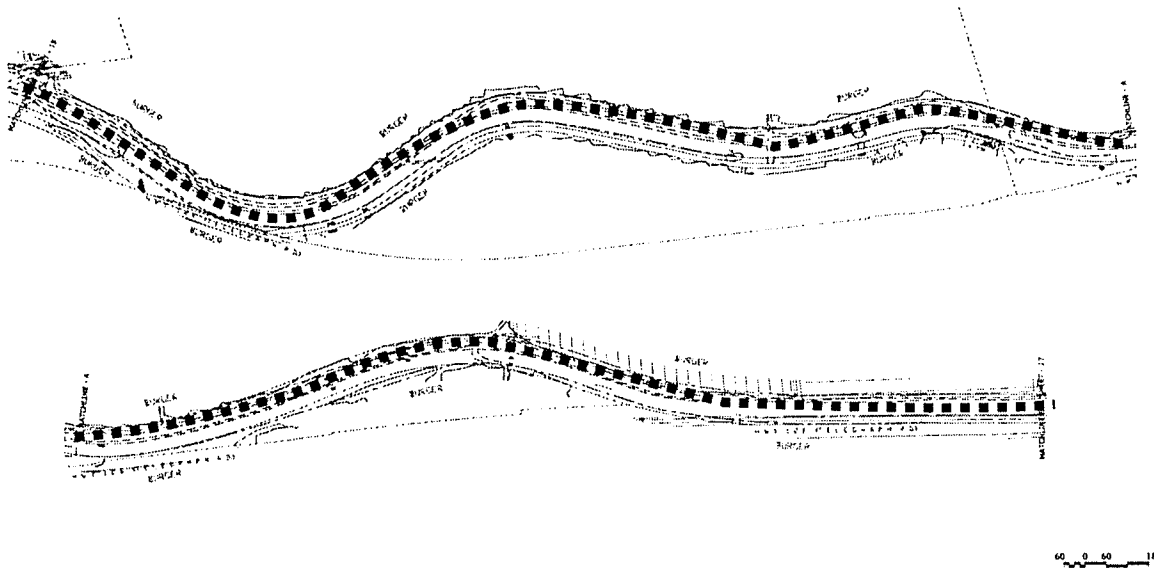
Segment 16 - Piru to Camulos Ranch

This segment proceeds east from the east side of Piru toward Rancho Camulos. East from Main Street in the community of Piru, the tracks are absent from the VCTC right-of-way. The Trail will follow the right-of-way staying to either the north or south side portion of the right-of-way in order to accommodate future rail alignments. The Trail will cross a number of private agricultural roads and runs adjacent to Highway 126 eastward.



Segment 16





Legend

- **1A** Design Reference
- Cross Section
- Proposed Trail Alignment
- Staging Area/ Rest Stop
- Access to Trail Outside of Rail Right of Way

SANTA PAULA BRANCH LINE Recreational Trail

Segment 16 - *Piru to Camulos Ranch*

FIGURE 70

Segment 16	**Piru to Camulos Ranch**	
Segment Length: 1.4 miles	Class I = 1.4 miles	#
State Highway Crossings		0
Major Roadway Crossings		0
Minor Roadway Crossings		0
Private Ag Road Crossings		3
At Grade Railroad Crossings		0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		2
Staging Areas / Rest Stops		0
Trail Connections		0

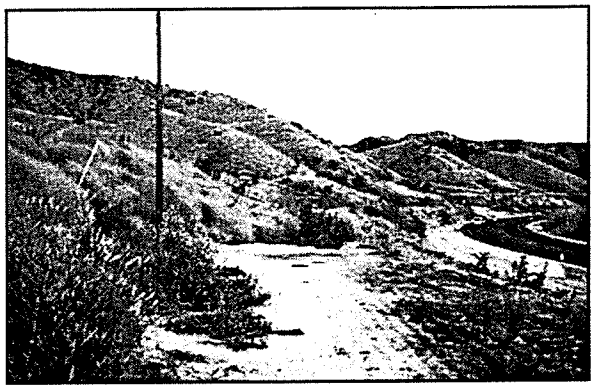
Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
	N/A		
	N/A		
	N/A		

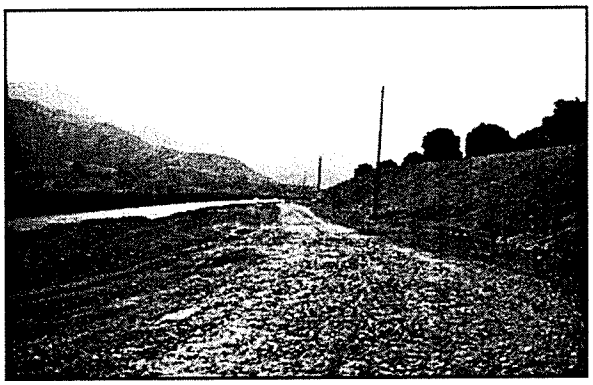
Figure 71, Summary Tables Segment 16

Segment 17 - Camulos Ranch

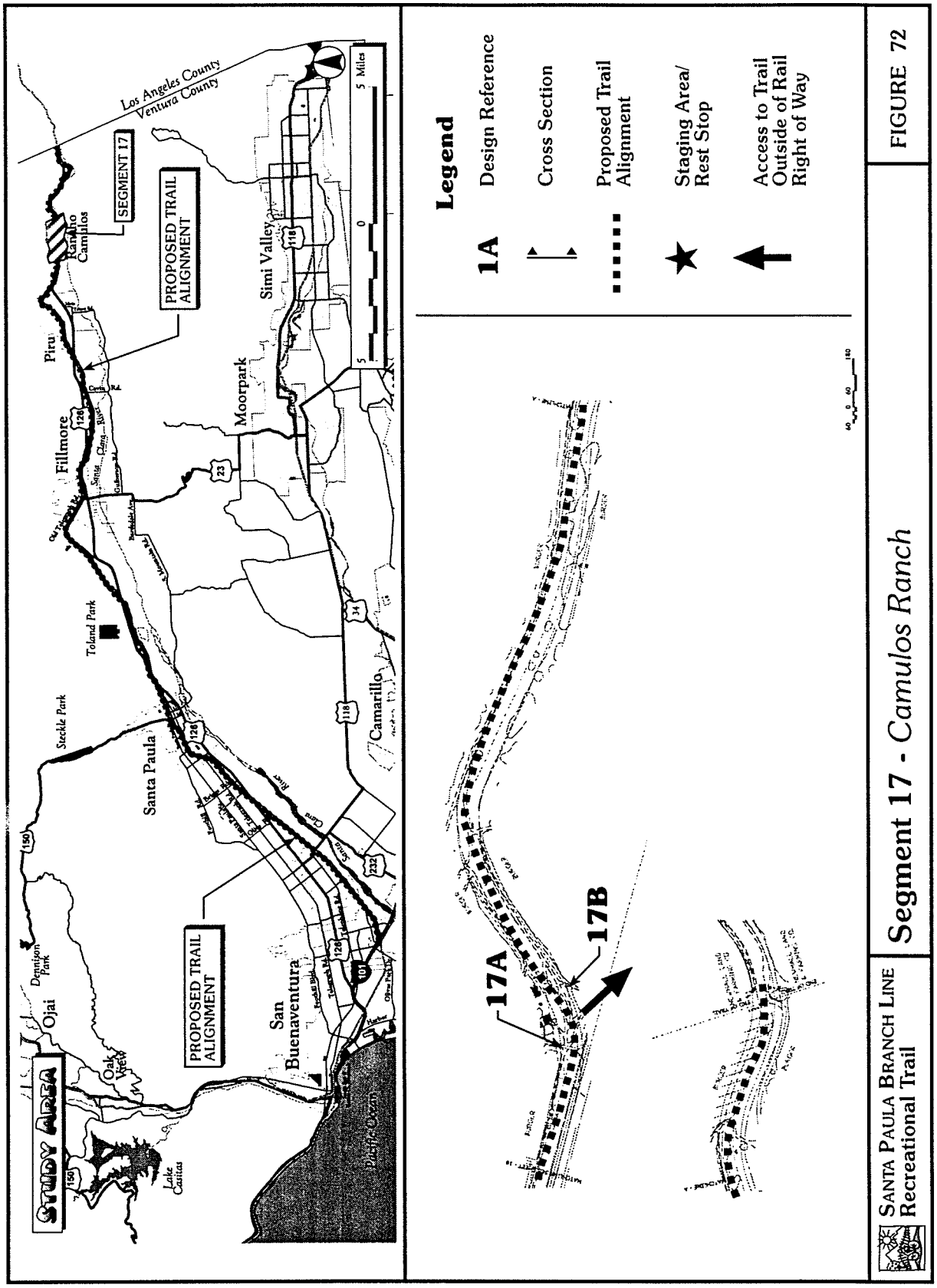
This segment of the Trail alignment ends at Rancho Camulos. An eastward connection to the Trail system within the City of Santa Clarita will be made at a future time. The Trail will cross Bunkhouse Entrance Road and proceed along the right-of-way. The Trail will divert south under the Highway 126 to make a connection at the historic Rancho Camulos Center to provide an eastern terminus and access point to the Trail system at the historic ranch area. In the future, the Trail will extend east toward the Ventura County line making connection with the Newhall Trail System from the City of Santa Clarita. The design and facilities for the staging area at Rancho Camulos are further described in the design section in this document.



Segment 17



Adjacent to Highway 126


Los Angeles County
Ventura County
SEGMENT 17
PROPOSED TRAIL ALIGNMENT
PROPOSED TRAIL ALIGNMENT
STUDY AREA
Rancho Camulos
Piru
Fillmore
Moorpark
Simi Valley
Toland Park
Santa Paula
Ojai
Oak View
Lake Casitas
San Buenaventura
Pacific Ocean
Camarillo
Legend
1A Design Reference
Cross Section
Proposed Trail Alignment
Staging Area/ Rest Stop
Access to Trail Outside of Rail Right of Way
17A
17B
5 0 5 Miles
SANTA PAULA BRANCH LINE Recreational Trail
Segment 17 - *Camulos Ranch*
FIGURE 72

Segment 17	**Camulos Ranch -- trail stops short of end of segment**	
Segment Length: 1.3 miles	Class I = 1.3 miles	#
State Highway Crossings	Highway 126 @ Rancho Camulos	1
Major Roadway Crossings		0
Minor Roadway Crossings	Bunkhouse Road	1
Private Ag Road Crossings		0
At Grade Railroad Crossings	(Future only @ Rancho Camulos)	0
Major Drainage / Barranca Crossings		0
Minor Drainage Crossings		2
Staging Areas / Rest Stops	Rancho Camulos	1
Trail Connections	Rancho Camulos, Newhall Trail System	2

Design Standard Reference Table

Locator #	Crossing Reference	Design Standard	Figure Reference
17A	Bunkhouse entrance road	Typical Design Treatment #3	
17B	Transition from ROW to underpass under 126	Specific Design Treatment	

Figure 73, Summary Tables Segment 17

9.0 Trail Design Characteristics

Regulatory Framework

There are existing State and Federal standards that guide and/or dictate the design standards for the Santa Paula Branch Line Trail. Additionally there are professional organizations that focus on providing specific design and implementation guidelines and standards to ensure that multi-use trails are constructed to a consistent set of the highest and best standards currently available in the United States. Planning, design, and implementation standards are derived from the following sources:

Caltrans: **Highway Design Manual (Chapter 1000: Bikeway Planning and Design)**
AASHTO: **A Policy on Geometric Design of Highways and Streets**
State of Florida: **Trail Intersection Design Guidelines (draft)**
Manual of Uniform Traffic Control Devices
USDOT, FHWA: **Selecting Roadway Design Treatments to Accommodate Bicycles**
BFA: **Selecting and Designing Bicycle Routes**
USDOT/FHWA: **Conflicts on Multiple-Use Trails**
ITE: **Design and Safety of Pedestrian Facilities**
RTC: **Rails-with-Trails, Sharing Corridors for Transportation and Recreation**

It is useful to note that while there are a considerable number of trails-on-active-railroads around the United States, there are few design guidelines that have been developed specifically for this type of facility to date. The sources listed above provide details on many aspects of a rail trail, but (a) may contain recommendations that disagree with each other, (b) are not, in most cases, officially recognized 'requirements,' and (c) do not cover all of conditions on most rail trails. Except for the Caltrans guidelines, all design guidelines must be considered as simply design resources for the Santa Paula Branch Line Rail Trail, to be supplemented by the reasonable judgements of professionals.

In addition to the published resources listed above, the Trail Plan standards have been drawn from the experiences of active rail trails around California and the United States to establish accepted practices. Unfortunately, there are few distinct patterns around the country in terms of grade crossings, fencing, setbacks, and other items. Efforts are currently underway by planning and traffic specialists to establish an official reviewing body in California composed of Caltrans, the Public Utilities Commission, and other agencies and organizations, to establish a set of standards for rail trails in the state.

The following table summarized the breakdown between those design standards which are mandatory versus those which are advisory only. It is this framework that forms the basic foundation from which the trail is designed.

Mandatory Standards	Advisory Standards
Trail Width	Signing and Striping
Separation of Pathway to Roadway	Intersections and Crossings
Design Speed	Horizontal Alignment
Class II Bike Lanes	Stopping Sight Distance
Class III Bike Routes	Lateral Clearance on Horizontal Curves
Bridge and Grate Standards	Gradients
Signing, Markings and Traffic Controls	Structural Section
	Drainage
	Barrier Posts
	Bikeway and Railroad Intersections
	Trail Setbacks from Railroad Tracks

Figure 74, Design Standards Reference

* Note: The specific minimum mandatory and advisory design standards are contained in the appendices to this document.

Application of Standards

The Santa Paula Branch Line Recreational Trail has been designed in accordance with the basic guidelines set forth by Caltrans. Where there are conditions that are not explicitly covered in the Caltrans or AASHTO guidelines, advisory standards from appropriate resources have been applied. In conjunction with future construction, the final engineered plans for segments of the trail will demonstrate compliance with all applicable mandatory standards. Compliance will be determined by the appropriate jurisdiction in which the trail is being constructed.

Continuous Theme

The 32-mile length of the Santa Paula Branch Line Trail presents a design challenge in terms of its maintaining a uniform and cohesive appearance. Since the trail crosses through four different jurisdictions, certain design features become critical to maintaining a continuous theme and trail experience. These key unifying design features are listed below and are illustrated in this chapter.

- Trail Logo
- Directional Signs
- Kiosks and Information Resources
- Landscaping Features
- Pavement markings
- Mile Markers
- Interpretative Exhibit Design
- Trail Entrance Features

Urban and Rural Design Distinctions

The trail corridor travels through a varied landscape for its 32-mile length. The sections within the incorporated boundaries of San Buenaventura, Santa Paula and Fillmore are urban in nature, characterized by the adjacency of residences and businesses, and a greater number of public street crossings. In contrast, the sections within the unincorporated portions of the corridor are surrounded by rural lands and for the most part, working agricultural operations.

Because the trail passes through lands with distinctive character differences, separate trail design features have been established in the Trail Plan. The separate design characteristics of the urban and rural trail sections are described below. The sections of trail proposed for each set of standards is shown in the map exhibit below.

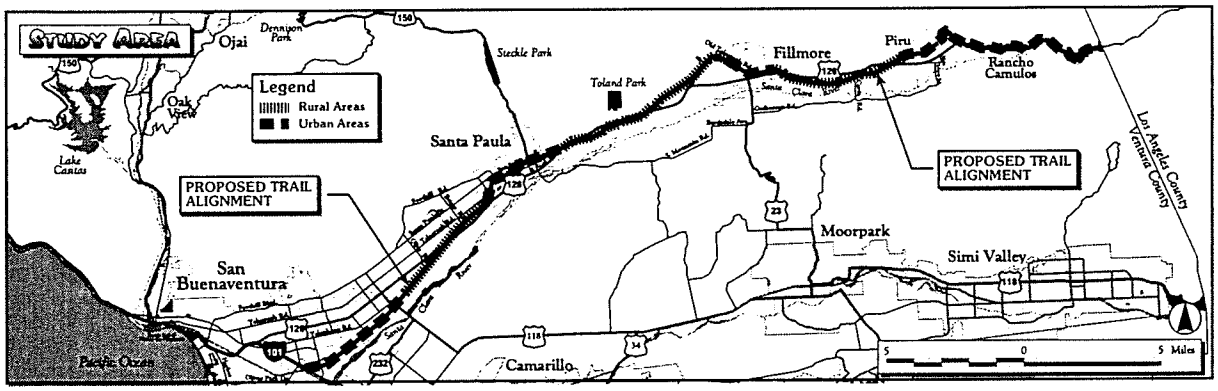


Figure 75, Urban and Rural Areas

Urban Design Section

The urban sections are defined as those areas within the incorporated areas of Ventura, Fillmore and Santa Paula and the communities of Saticoy and Piru.

General Characterization:

- Used on the corridor in urbanized areas (Santa Paula, Ventura, Fillmore, Saticoy, Piru)
- Will tie in to public spaces (i.e. historic depots, civic buildings)
- Greater number of public crossings will occur at signalized intersections
- Increased public safety features needed (bollards, signs etc.)
- More diverse mix of adjacent uses (homes, commercial, public, industrial, etc.)
- Property line fencing may not always be necessary
- Greater opportunity for enhanced design character
- Trail character can reflect the design theme of the community it is within

- Landscaping opportunities
- Use of decorative safety lighting
- Opportunity for public art and historic information tie-in

Typical Design Elements:

- Paved surface of varying width
- Security fence separation from the rail line
- Landscape strip on outside edge of trail
- Lighting and fencing of character appropriate to the community
- Signing consistent with character of the community
- Notification signing that trail is subject to closure

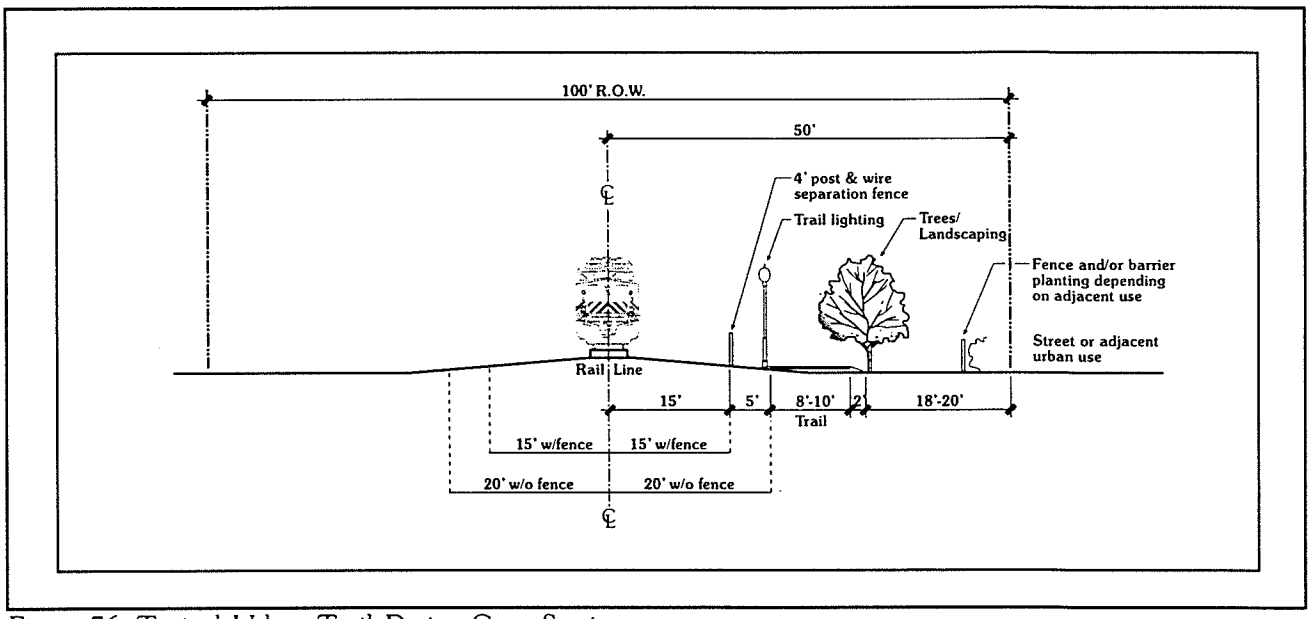
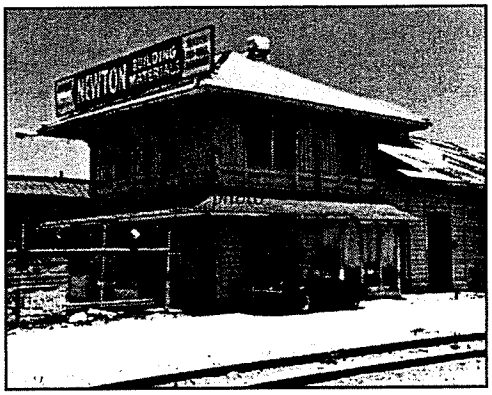


Figure 76, Typical Urban Trail Design Cross Section

Specific Urban Design Features

Each city along the trail corridor has developed individual community plans that address key urban design issues. This master plan is intended to comply with urban design plans adopted for these communities. The following describes the key features for each community and the typical design elements associated with the trail.

Saticoy Design Overlay



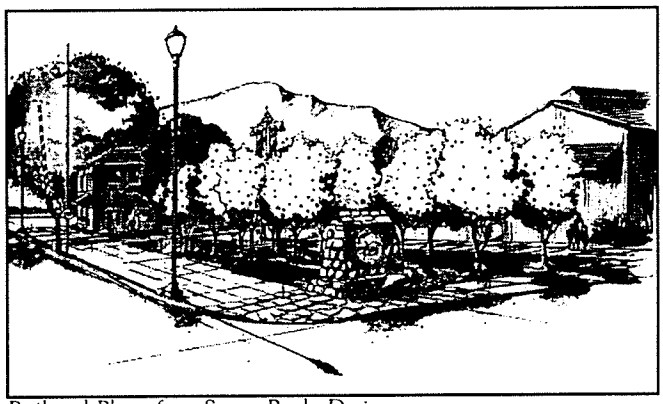
Saticoy Depot

Design elements of the trail will be consistent with the historical restoration goals contained in the Santa Paula Branch Line Master Plan for the Saticoy Train Depot and surrounding area.

Design features will include:

- Tie into Historic Design themes from the Saticoy Station Era C. 1887
- Use of building materials and designs reflective of that era
- If a Metrolink station is to be located at the Saticoy Depot then basic Metrolink design standards should be accommodated in site design
- Site furnishings such as pedestrian lighting, benches, planters, paving materials etc. should be consistent with the historic design of the Station building and platform
- Trail access with vehicle and bike parking and other user services described in this chapter should be included in the site design

Santa Paula Design Overlay


Railroad Plaza from Santa Paula Design Development Report.

Design elements of the trail will be consistent with the City's Railroad Right-of-way Project which is part of the "Downtown Improvement Projects - Phase I" document.

Design features will include:

- Tie in to a restored visitor's center at the depot
- Brick paving accents
- Historically-styled light standards
- Wrought iron benches
- Wrought iron fencing with cut stone pilasters
- St. Francis Dam Memorial Monument at plaza
- Meandering bike path east of 10th Street
- Landscaping compatible with linear park plantings

Fillmore Design Overlay

Railroad Theme Area from Fillmore's Downtown Specific Plan

Design elements of the trail through the Central Plaza area will be consistent with the City of Fillmore Downtown Specific Plan and existing standards applied for built trails within the community.

In the Downtown:

- Trail location compatible with promenade theme adjacent to the central plaza
- Cast Iron bollards and tree grates
- Cast Iron theme lighting with acorn type fixtures
- Tie-in trail with specialty paving (e.g., brick and textured concrete)
- Fencing with brick/pre-cast concrete elements
- Planting of evergreen and deciduous trees along paseo
- Shrub planting from approved downtown palette

Outside of Downtown:

- Trail materials and width compatible with existing trail
- Street tree planting continued adjacent to trail and roads
- Lodge pole fence separation theme continued

Piru Design Overlay


Piru Town Square from the Community Enhancement Plan

Design elements of the trail will be consistent with the "Piru Community Enhancement Plan.".

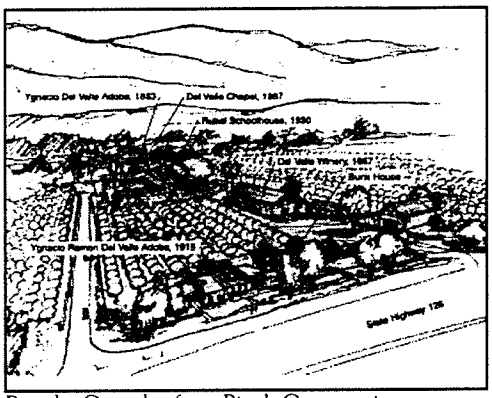
Design features will include:

- Trail access and rest stop design consistent with concept plan for Town Square
- Use of traditional materials (i.e., brick and period style light standards)
- Unpainted wooden fencing used to capture rural theme

- Landscaping materials to be native to avoid conflict will filming needs
- Improve lighting along rail corridor
- Emphasis placed on film industry history
- Improvements adjacent to the rail depot should be country/rural in theme rather than contemporary urban styles.

Rancho Camulos Design Overlay

Design elements of trail will be consistent with the "Rancho Camulos Historic Museum Master Plan," adopted March of 1997.



Rancho Camulos from Piru's Community Enhancement Plan

Design features will include:

- Staging and trail access to tie-in to the master plan for Camulos Ranch site use areas
- Safe connection at Highway 126 undercrossing between the Camulos Rail Depot Site and the Museum on south side of Hwy 126
- Working ranch elements (i.e., wood and self-weathering fencing, native color aggregate base material for trail construction, formalization of landscaping as trail approach Camulos Ranch improvements, etc.)
- In working ranch citrus areas, apply filming area overlay standards to minimize visual impact of trail

Rural Design Section

The unique character of the rural sections of the Trail, the importance of land use interface and attention to safety and the recreational trail "experience" is a goal of the Trail Master Plan. This following section describes the location of the Rural sections of Trail and describes the basic design. Throughout the project area the need to maximize the setback of fencing from property to maintain turning space for farm equipment, gates for farm equipment crossing, minimizing planting to avoid conflict with crops and security for adjacent landowners is of critical importance. The following elements describe the typical rural treatment along the ROW.

General Characterization:

- Used along corridor in areas adjacent to agriculture and outside of urban areas
- Reduction in public access points to trail

- Operates as a "dawn to dusk" trail
- Emphasis on security

Typical Design Elements:

- Paved surface of 12 foot width
- Automated security control system with video cameras
- 6' post and mesh fencing between trail and adjacent owner
- Automated crossing arms across trail at each agricultural road crossing
- Security fence as close to edge of trail as possible with negotiated agreements to encroach into VCTC property
- Safety fence separating inner trail edge from rail line (e.g. 4 foot high post and wire)
- Fence type may have different character adjacent to row crops
- No lighting fixtures
- Use of non-invasive ornamental barrier plants to help soften fencing
- Notification signing that trail is subject to closure

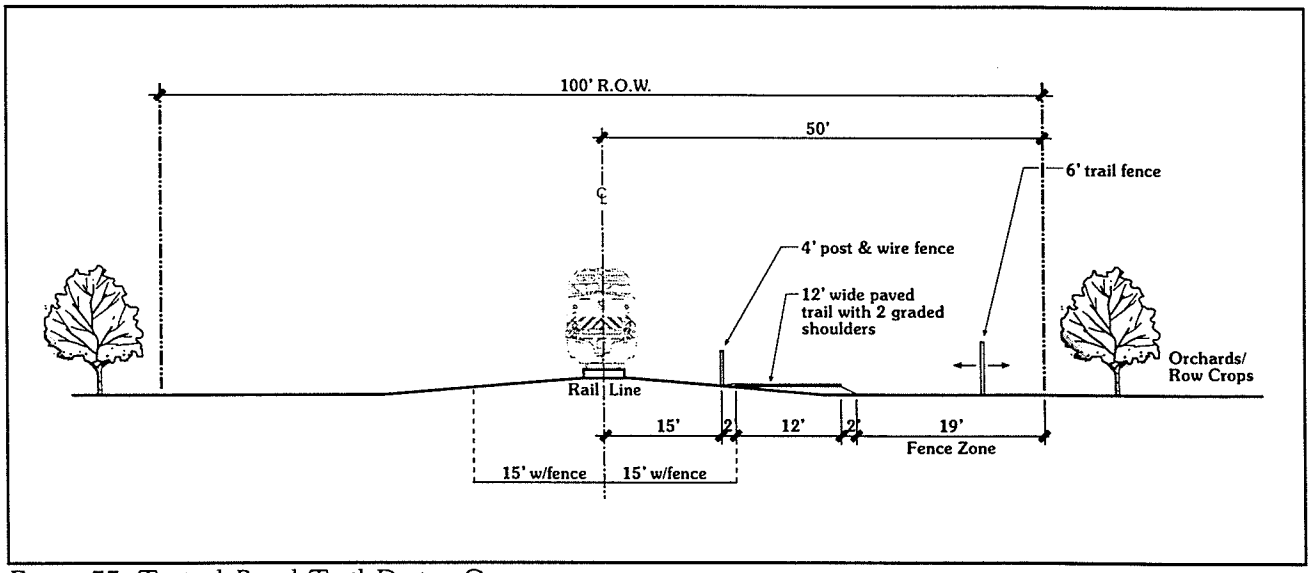


Figure 77, Typical Rural Trail Design Cross

Filming and Sensitive Overlay Areas

Portions of the ROW have been and are likely to continue to be used by the filming industry. Films using these areas as location are typically historical and "old fashion" in theme, thus preservation of the natural old days image is critical. The following outline provides design direction

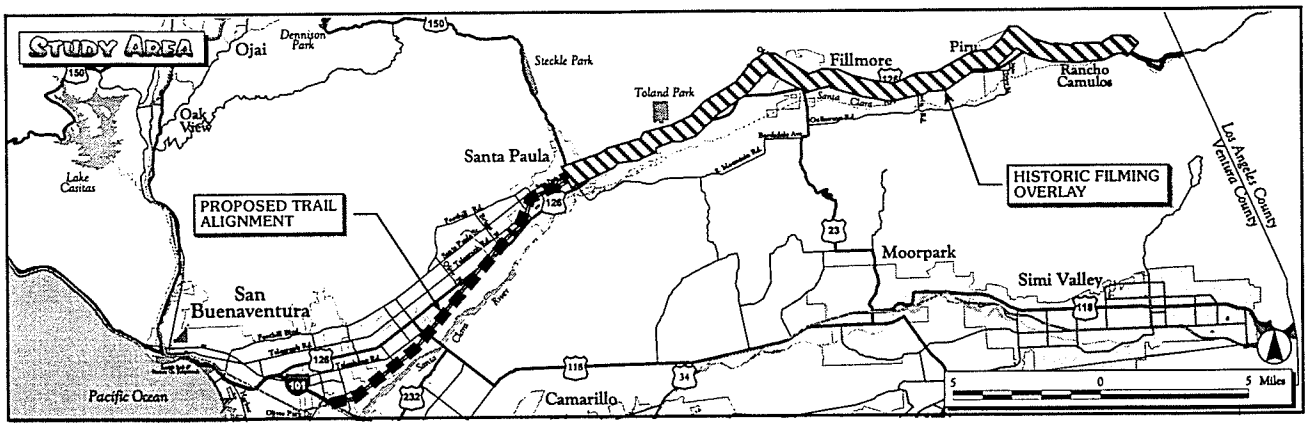


Figure 78, Historic Filming Area

for the film overlay zone, limiting improvements to those features and designs which have an old fashion "look".

General Characterization:

- Used in areas historically used by the film industry
- Area of special value for its scenic character and absence of modern structures

Typical Design Elements:

- Paved surface of native colored aggregate base to blend with adjacent soil
- 12 foot in width
- Rustic materials to be used for fencing separations (i.e., wood and self-weathering metal rather than galvanized or vinyl finishes)
- Any landscaping to be native to area (e.g. no palm trees). Not hosts to invasive pests.
- Any rest stops to be visually non-invasive (screened or placed outside of viewsheds)
- No lighting fixtures
- Notification signing that trail is subject to closure

Trail Access / Staging Areas

Trail access and staging areas will be located as shown on the alignment maps. Many of these already exist, for example: Saticoy Depot, Harmon Barranca Trail Head, Santa Paula Depot, etc. Features will include restrooms, parking for vehicles and bicycles, phones, drinking water, trash receptacles, kiosks with traveler information, and other amenities.

All staging areas will be compliant with ADA standards (handicapped accessibility). Refer to figures 88-94 for typical features.

Purpose and Character:

- Place to park vehicles and unload bikes
- Access from urban areas to trail
- Wide range of services for recreational users
- Public property
- Tied to shared public used (i.e., train depots, parks, museums, civic uses, etc)

Design Elements:

- Paved Parking (aggregate base in sensitive areas)
- Public restrooms
- Information Kiosk with a Trail Directory Map / Trail Information
- Picnic Tables
- Public Phones
- Drinking Fountains
- Trash Cans
- Safety Lighting (in urban areas only)
- Bike Racks
- Shade and Shelter
- Potential for Commercial vending and service (food, bike support, equipment)

Potential Locations:

- Johnson Drive
- Harmon Barranca
- Saticoy Train Depot
- Peck Road Access
- Santa Paula Train Depot at 10th Street
- Hallock / 126 Area
- Shiells Park
- Fillmore Central Plaza/Train Depot
- Piru Town Square
- Rancho Camulos
- Harmon Barranca

Rest Areas

All along the Trail, facilities for user will be located, including the need for comfort (benches, trash receptacles, shade and water), safety (phones and kiosks with traveler information), and interpretative information (historical, cultural, and educational information). Refer to figures 88-94 for typical features. Rest areas will be located in rural areas, at places of interest and at regular intervals (approximately 2-3 miles apart).

Purpose and Character:

- Limited amenities for trail users
- Outside of denser urban areas
- Trail support facilities at places of special interest

Design Elements:

- Trash Cans
- Emergency Phone
- Drinking Water
- Shade Element
- Directional Signage/trail information
- Benches

Historic and Educational Themes

The Trail offers a unique opportunity to physically connect the towns of Santa Clara River Valley to one another and create ties to its culture and history. Historic and educational exhibits will be placed along the trail at strategic locations offering a variety of information. For example: In formation concerning the Heritage Valley with points of interest and directions to historic places can be developed.

The Saint Francis Dam Victims Memorial and "Moments in Time" monuments will be showcased along with other public art. The history of railroads, filming, oil, and farming in the valley can be portrayed. Educational exhibits concerning environment and natural resources will provide opportunity to educate visitors and residents about current issues and stewardship. All of these topics will be presented in a cohesive design to help reinforce the continuity of trail design.

Saint Francis Dam Victims Memorial:

- Hero Monuments (5 total with 3 along corridor)
    - Santa Paula Depot
    - Fillmore

    - Camulos Ranch
- Moments in Time Markers tied to Saint Francis Dam tragedy (east to west)

Railroad History:

- Use of existing railroad depot sites as Staging Areas and Rest Stops
- Interpretative information at staging area kiosks featuring rail history
- Excursion train information available
- Programs connecting rail and bike use

Santa Clara Valley History and Points of Interest:

- Identification of historical points of interest near trail within adjoining communities, such as:
    - Edwards Adobe
    - Briggs School
    - Faulkner House
    - Glen Tavern Hotel
    - The Mill
    - Santa Paula - Union Oil Museum
    - Little Red School House
    - Piru Hotel
- Interpretative events in history linked to the geographic area (i.e., facts or anecdotal stories)

Educational:

Interpretative exhibits along length of trail describing area history, natural systems and other educationally oriented points of interest such as nature and wildlife, geology, environmental awareness, management of resources and farming techniques/facts.

Typical Design Standards

The following are typical design standards and recommendations for various conditions along the Trail. Designs relate to drainage and road crossings, trail intersections and typical Trail amenities.

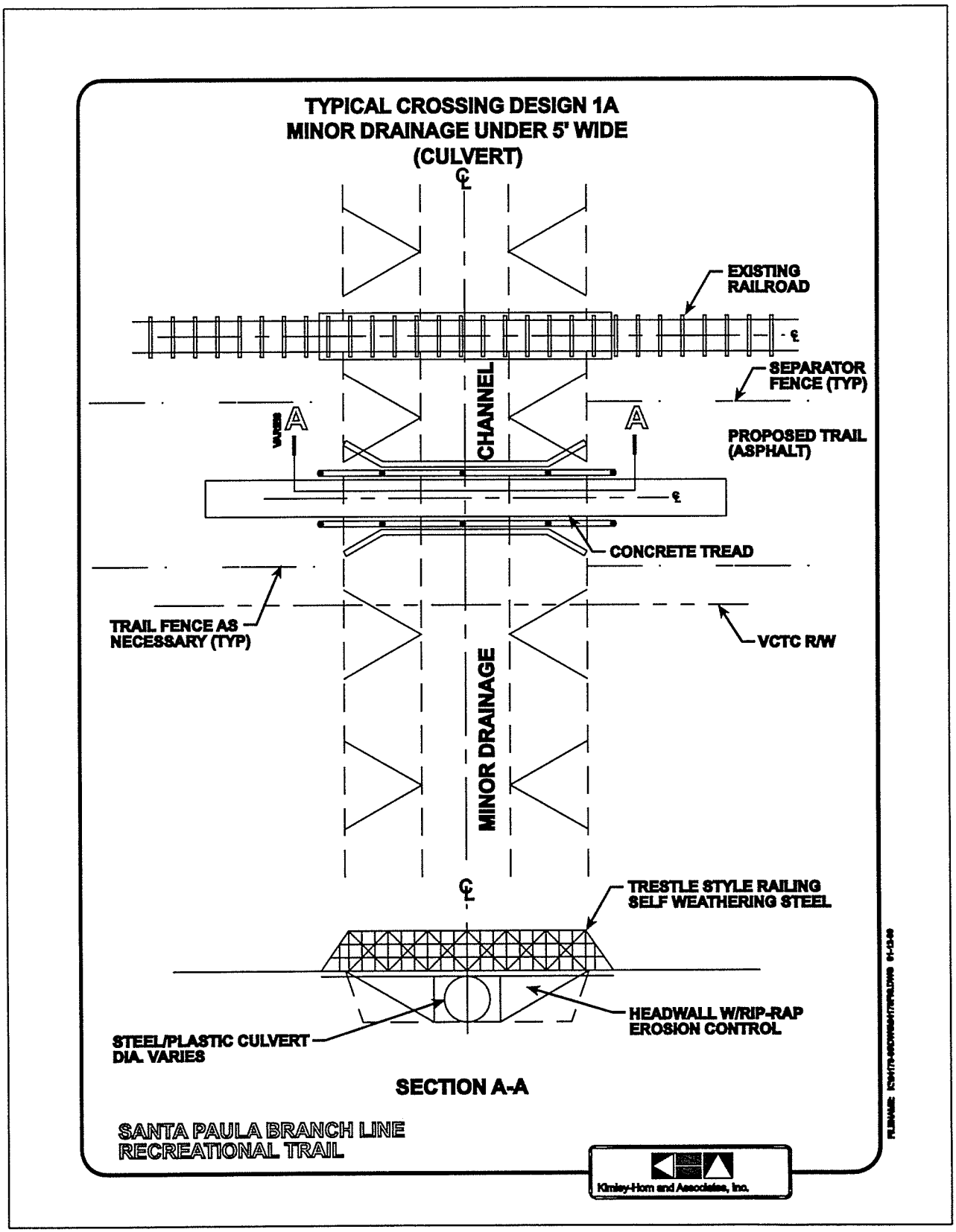


Figure 79, Minor Drainage Design #1A

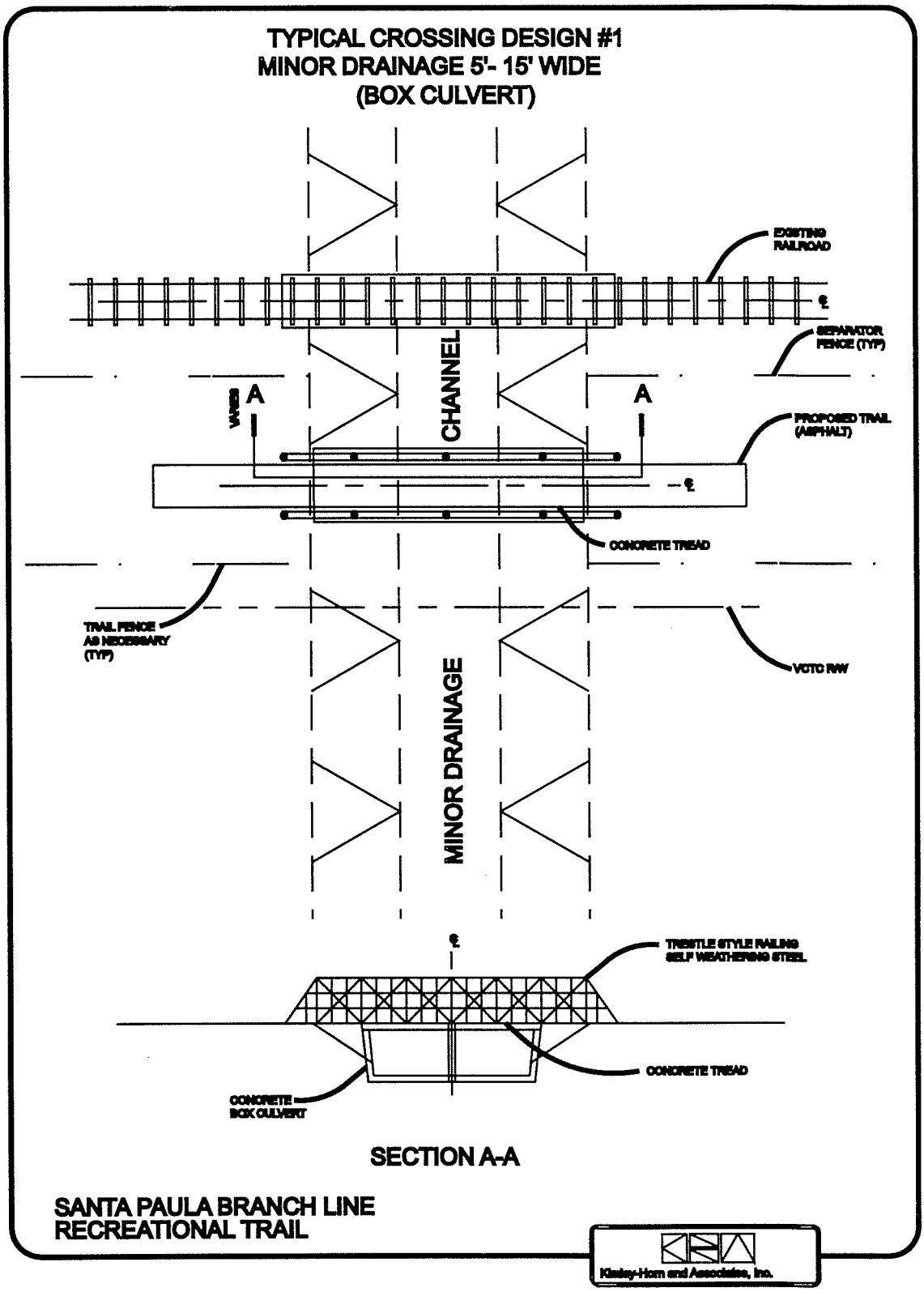


Figure 80, Minor Drainage Design #1B

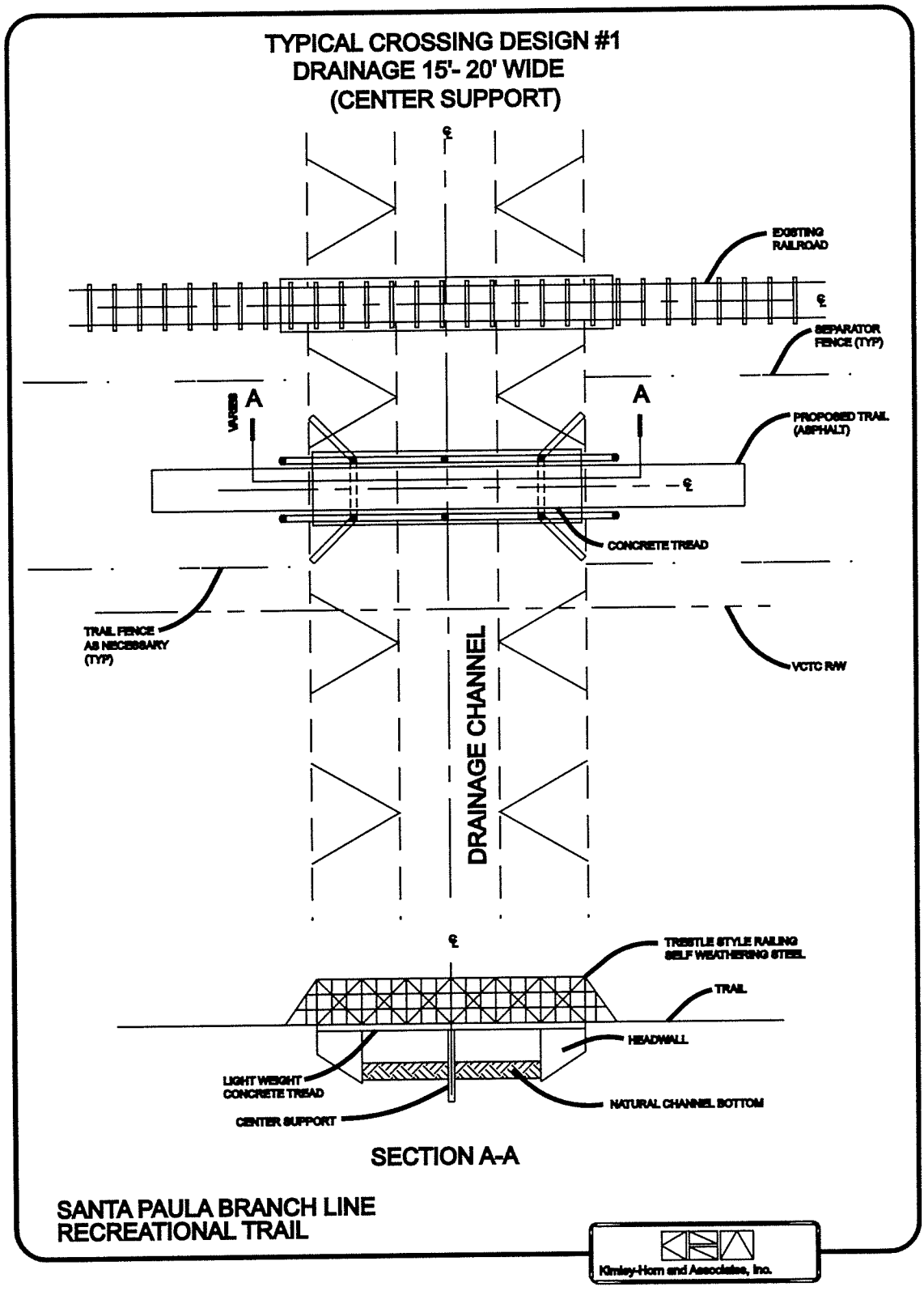


Figure 81, Minor Drainage 1C

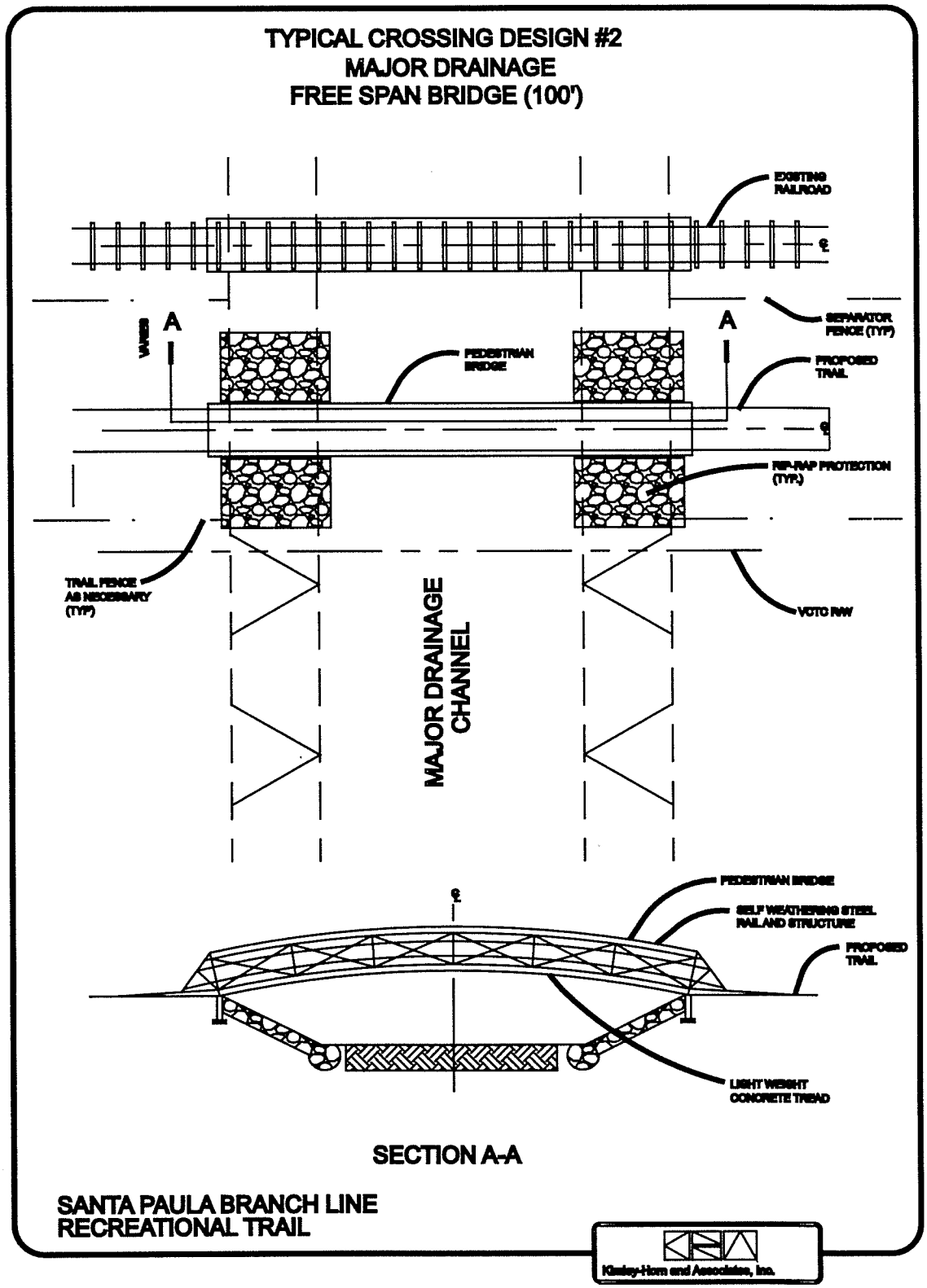


Figure 82, Major Drainage # 2

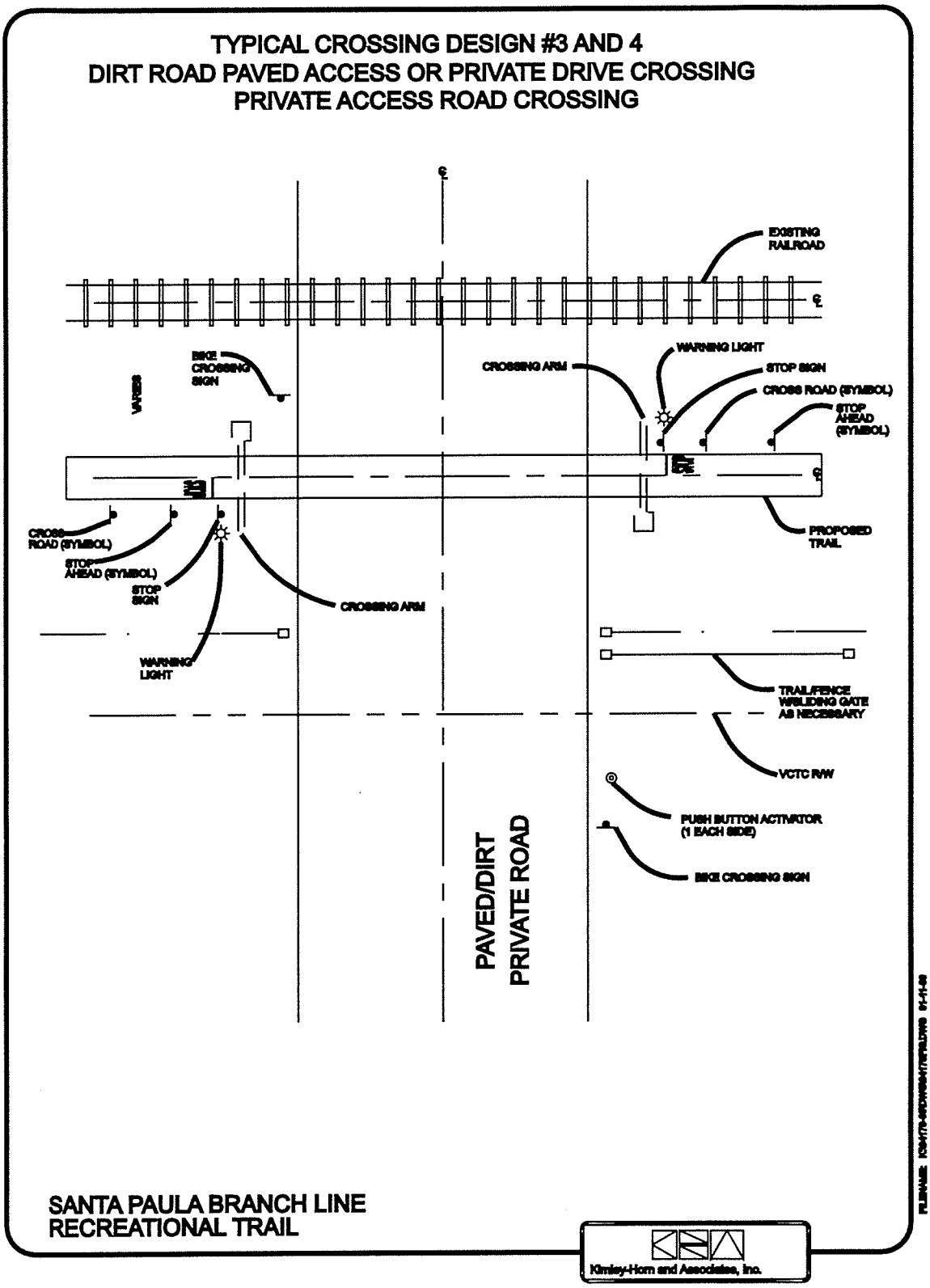


Figure 83, Agricultural Road Crossing #3

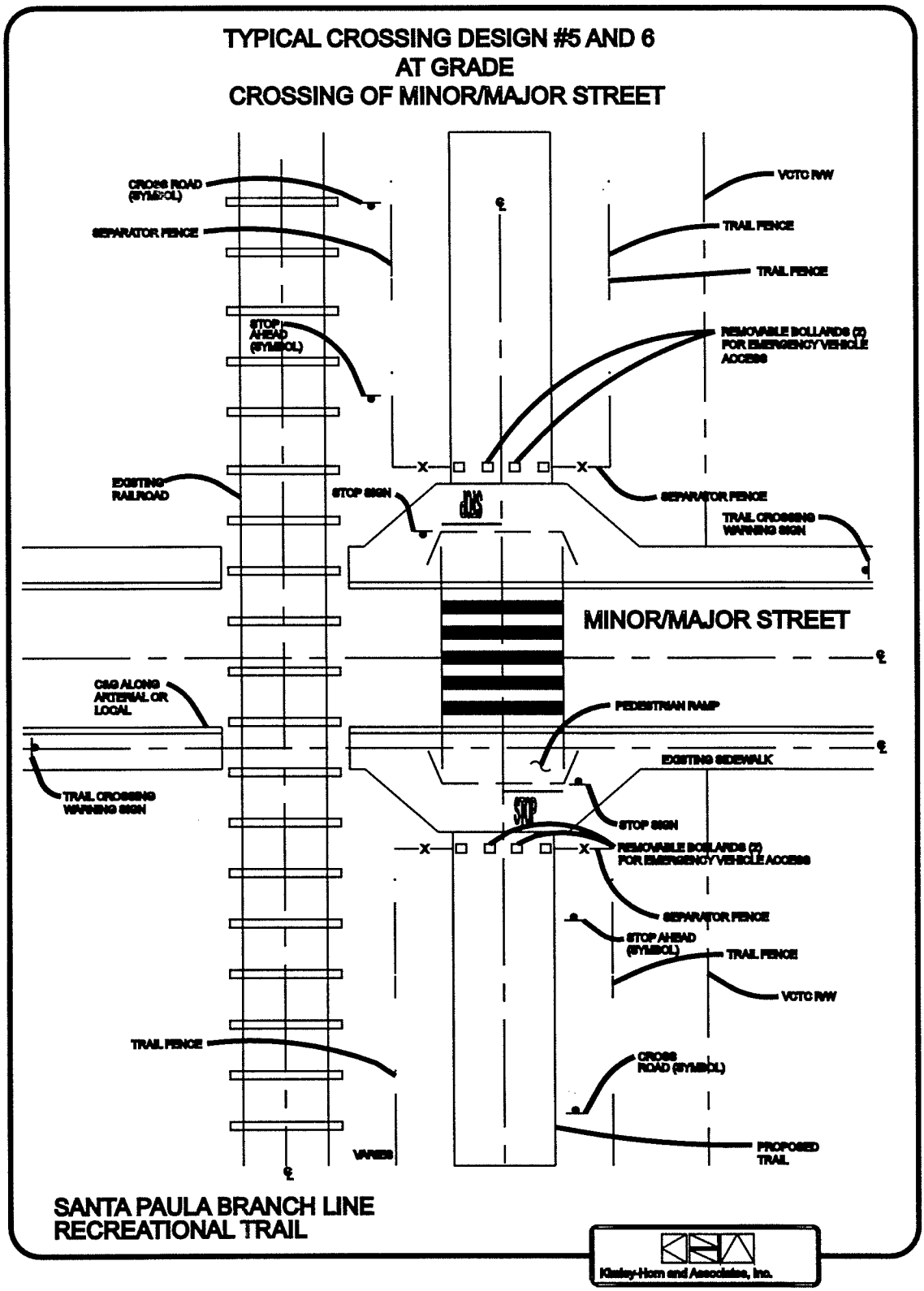


Figure 84, Major and Minor Roadway #4

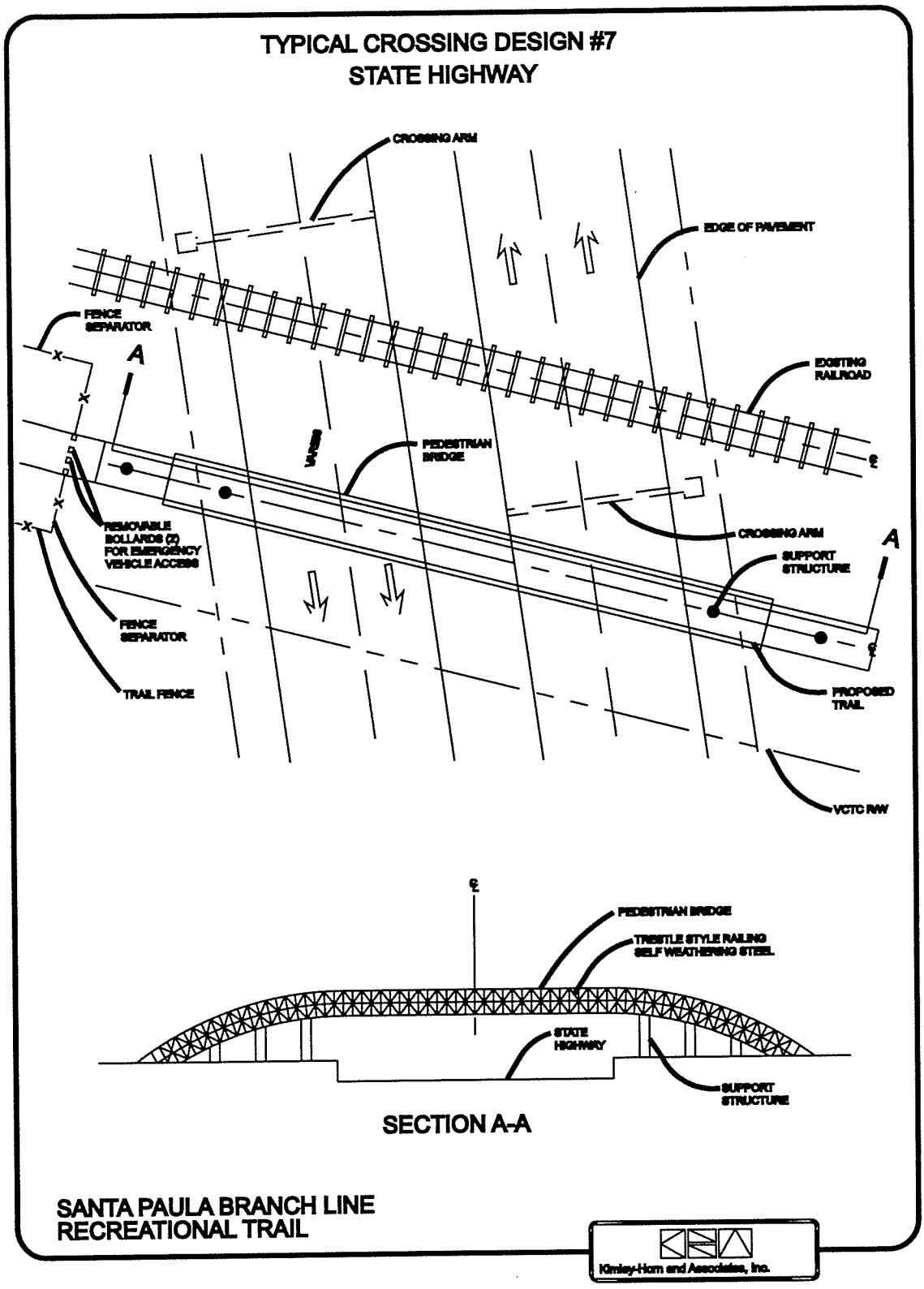


Figure 85, State Highway # 5

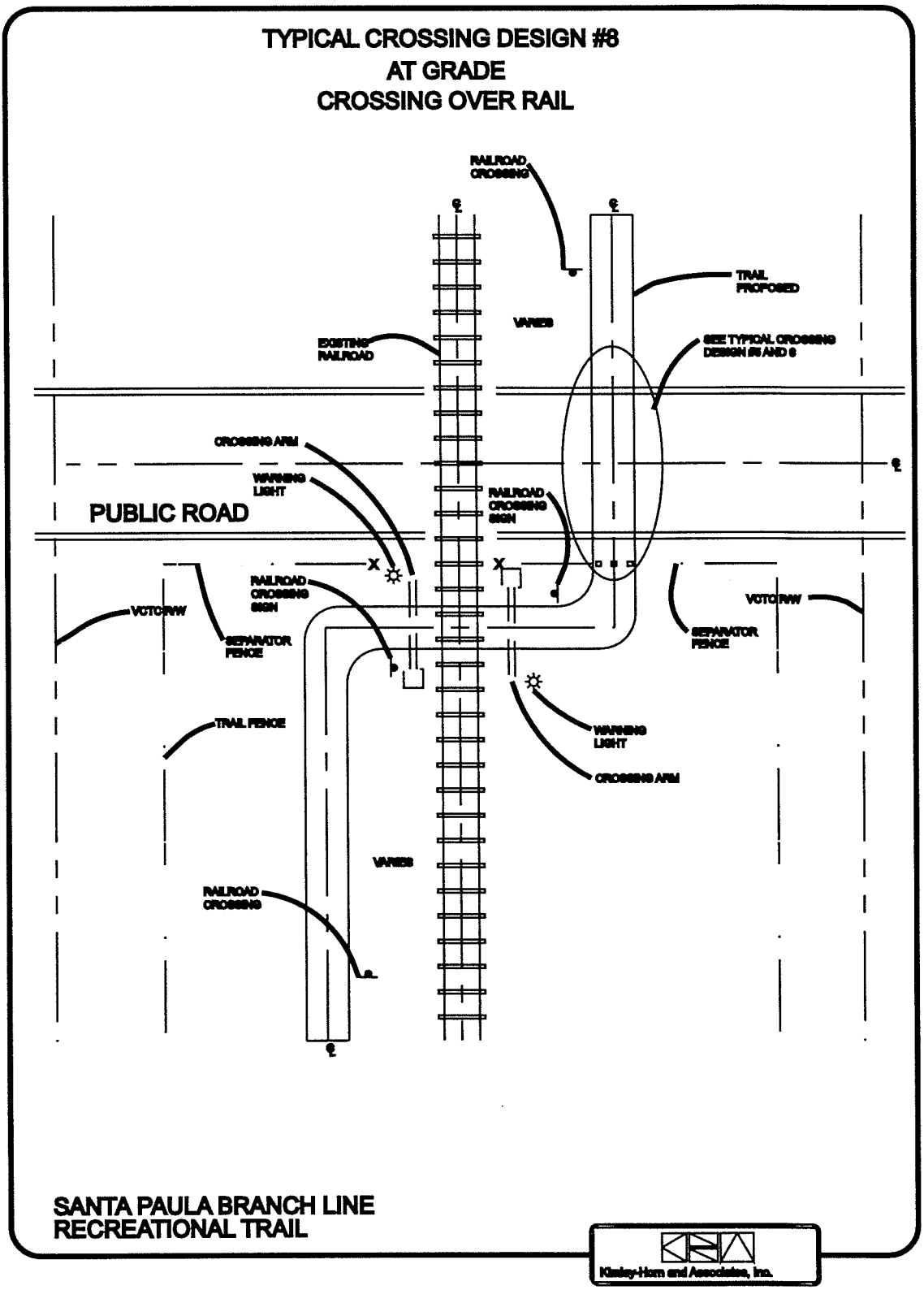


Figure 86, At Grade Railroad Crossing # 6

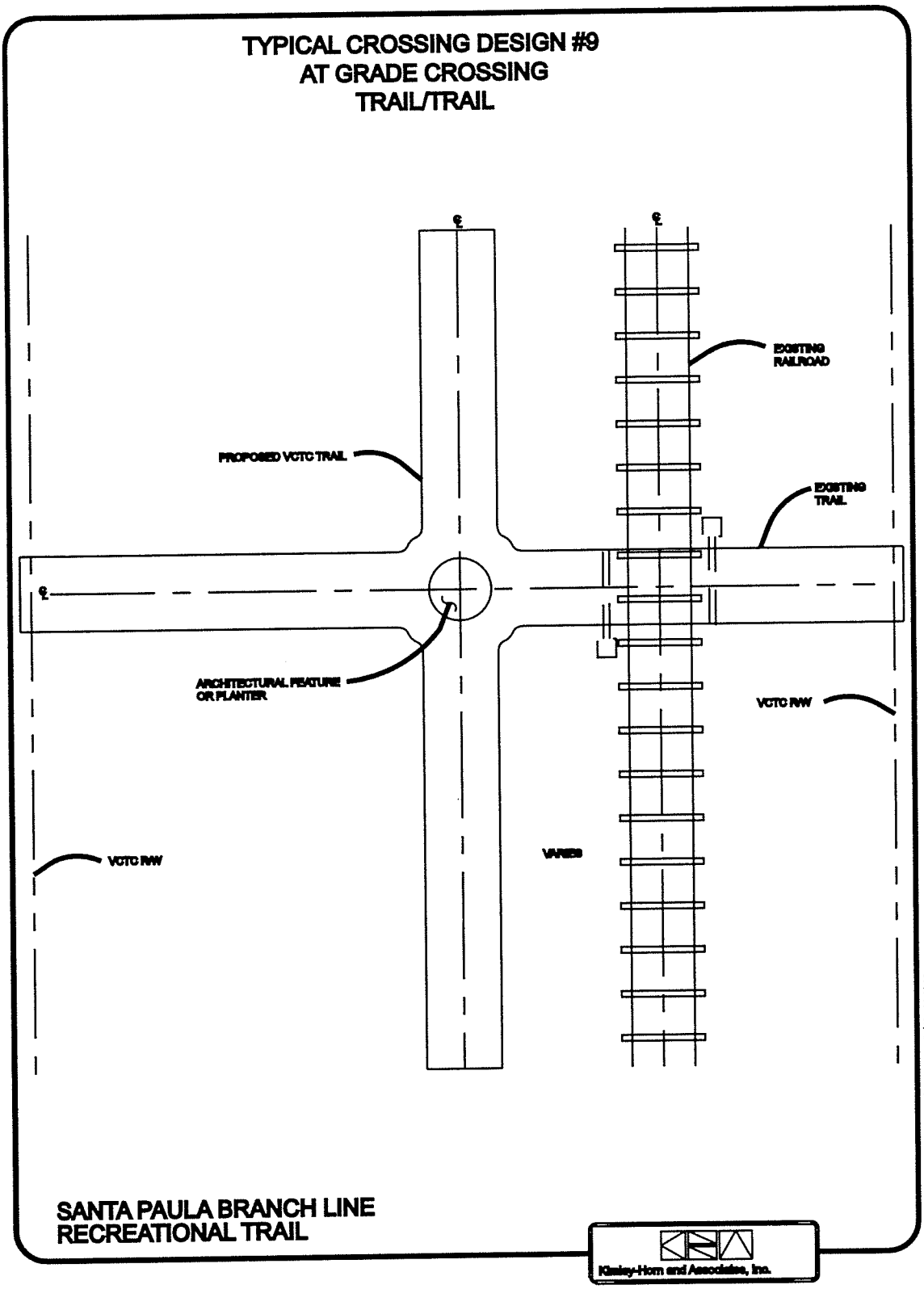
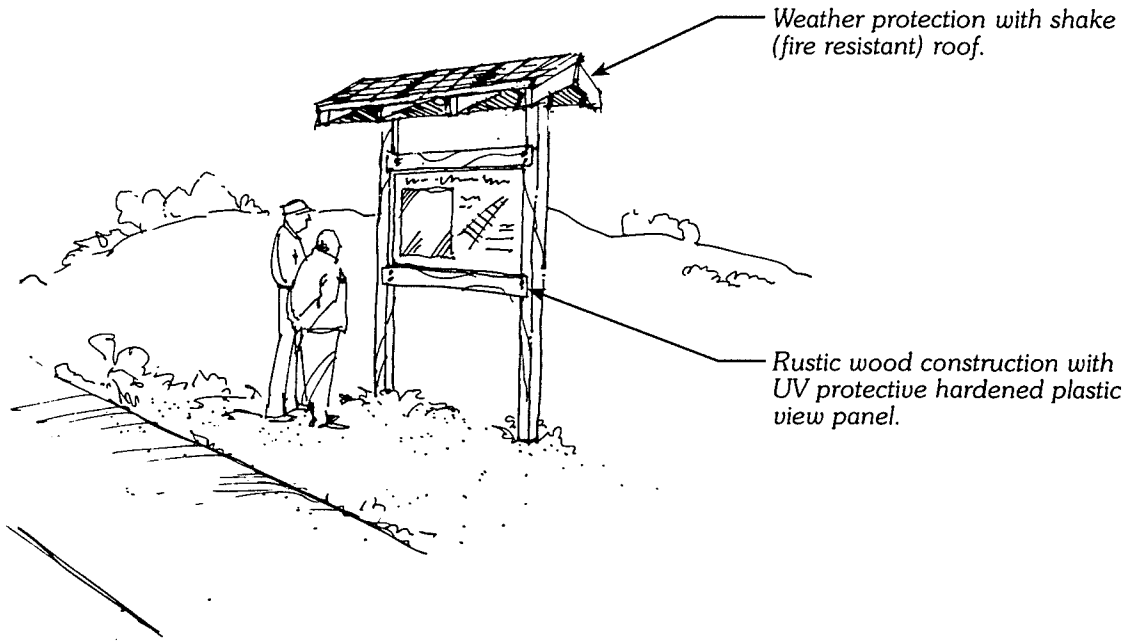
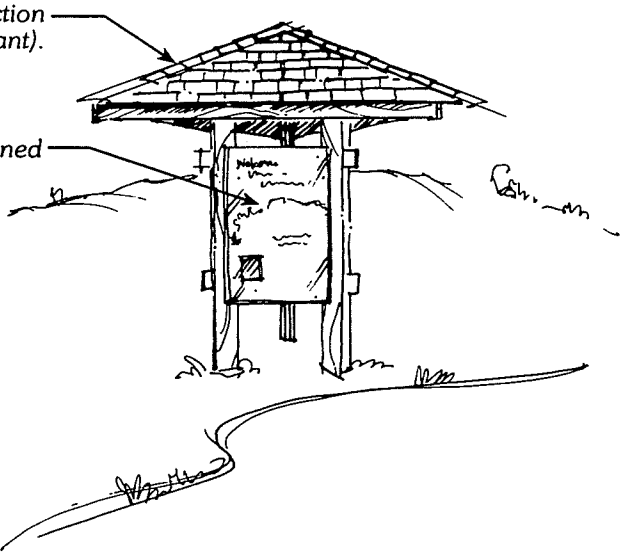


Figure 87, Trail Intersection with Other Trails # 7



Interpretive and Educational Exhibit Along Trail



Note:

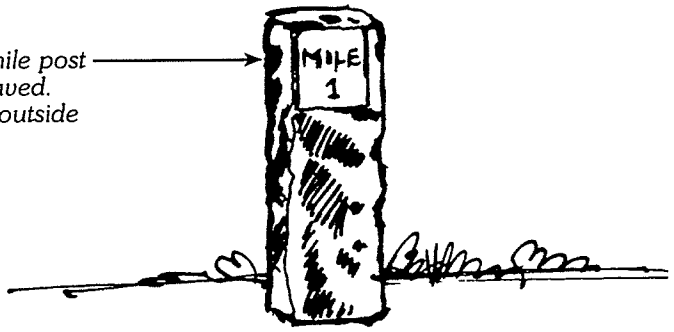
Kiosk equipped with electronic message (ITS) display for current trail conditions and closure information.

Typical Information:

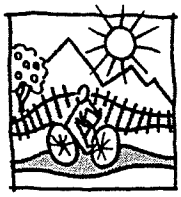
Location map, trail plans, directional information, historical & educational information, services & emergency information.

Information Kiosk @ Trail Access Points & Staging Areas

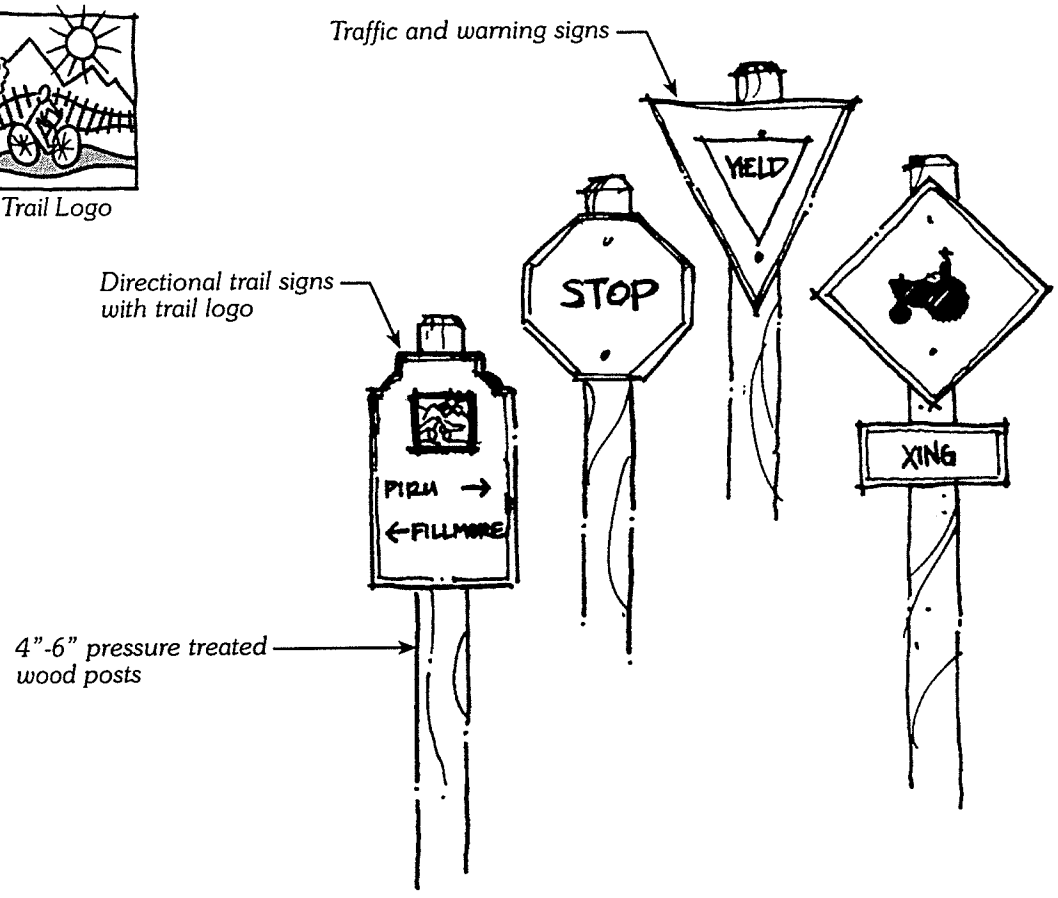
Figure 88. Educational Signs / Exhibits



Mile Post Markers

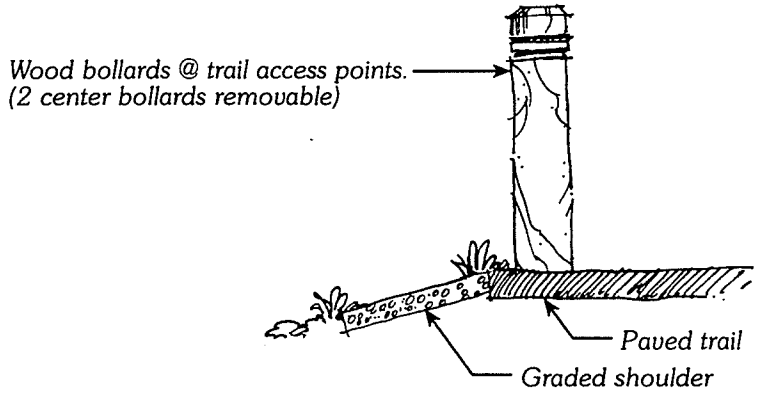


Trail Logo



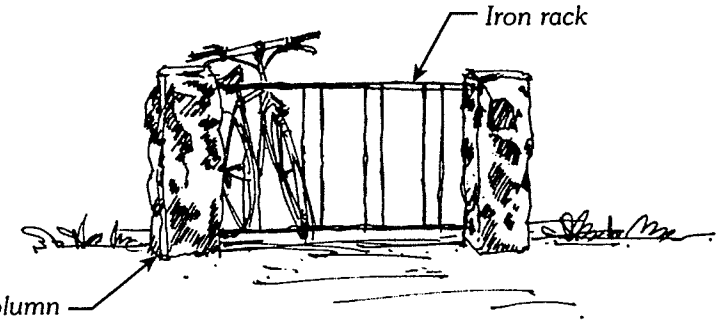
Trail Signs

Figure 89. Trail Signs and Logo

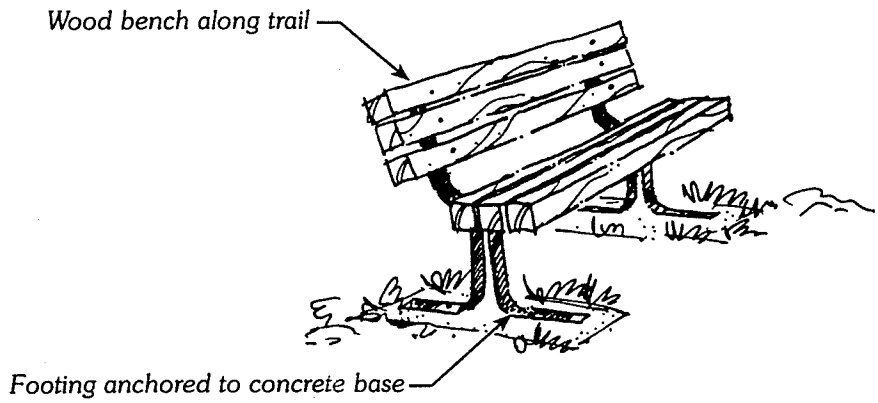


Bollards

Note:
Stone or wood bike racks along trail.

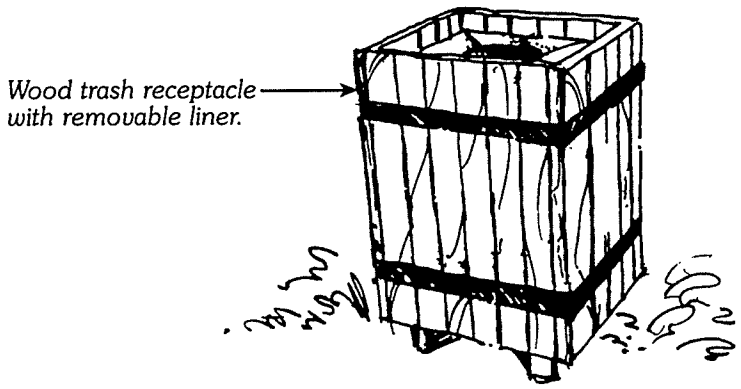


Bike Racks



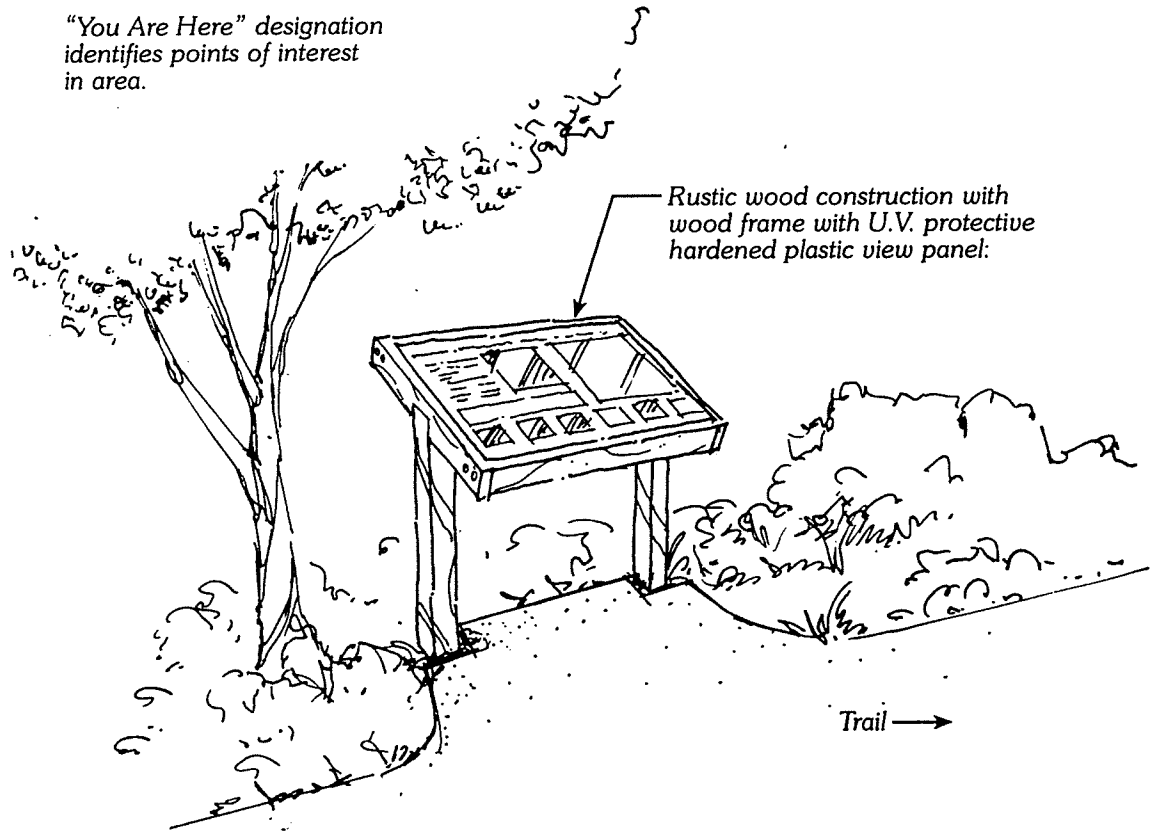
Benches

Figure 90, Trail Amenities



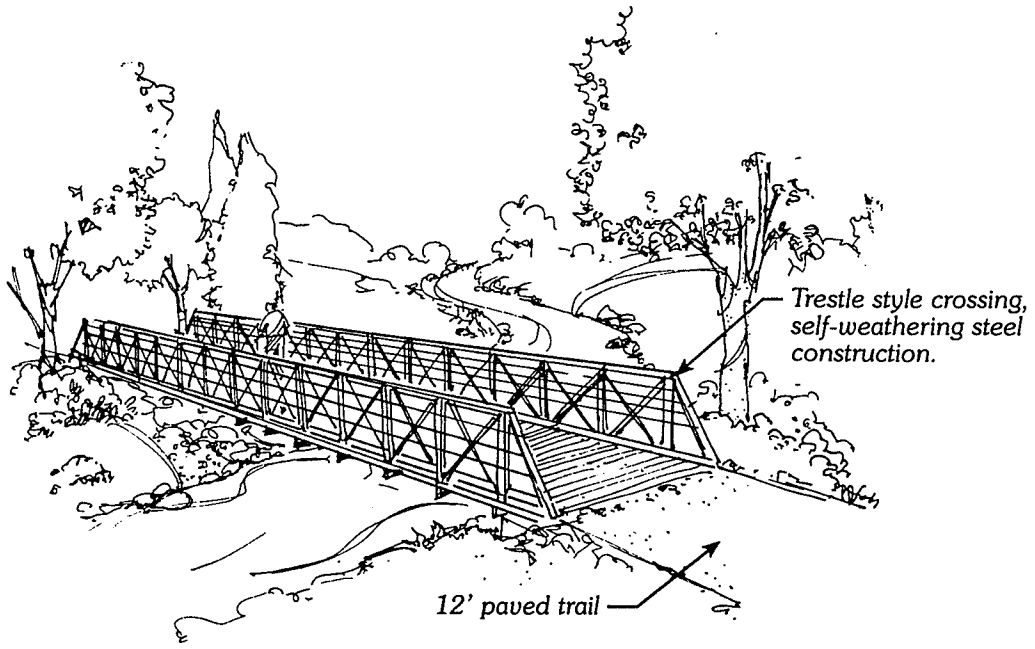
Trash Receptacles

Note:
"You Are Here" designation identifies points of interest in area.

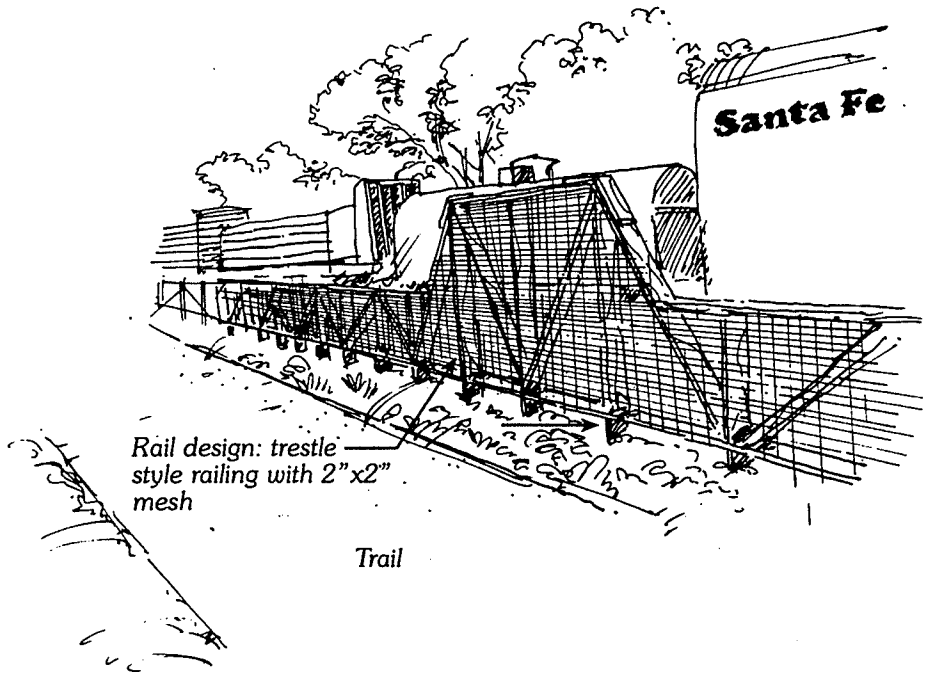


Typical Location & Directional Map Along Trail

Figure 91. Trail Amenities

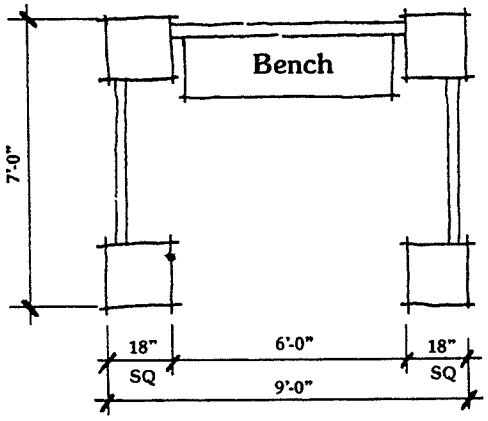


Typical Drainage Crossing



Typical Railing Treatment @ Crossing Structures

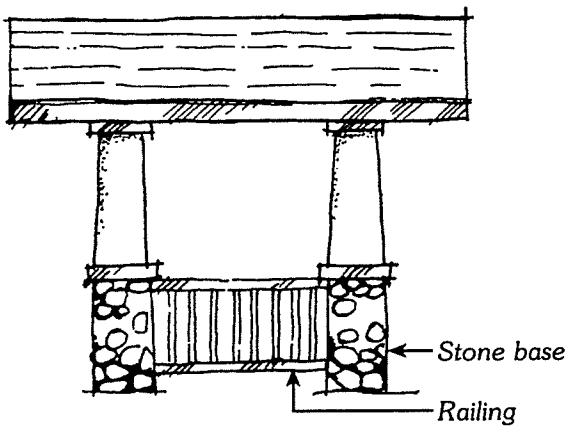
Figure 92. Trail Amenities



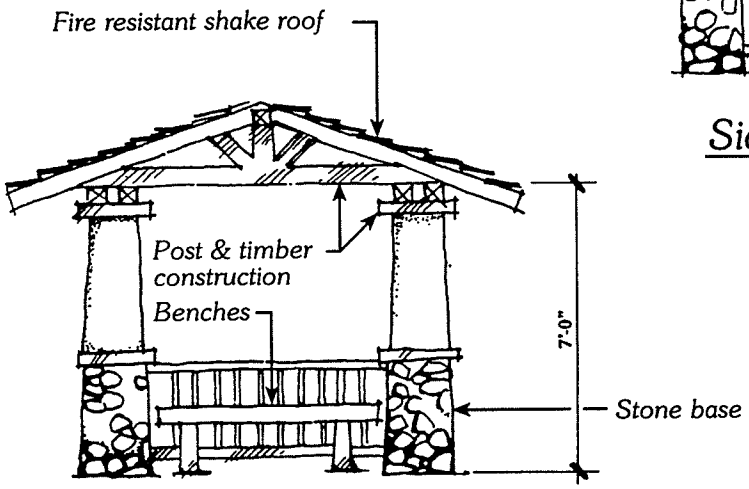
Plan View

Note:

Shade structure used @ trail access and staging areas and key locations in the project area.



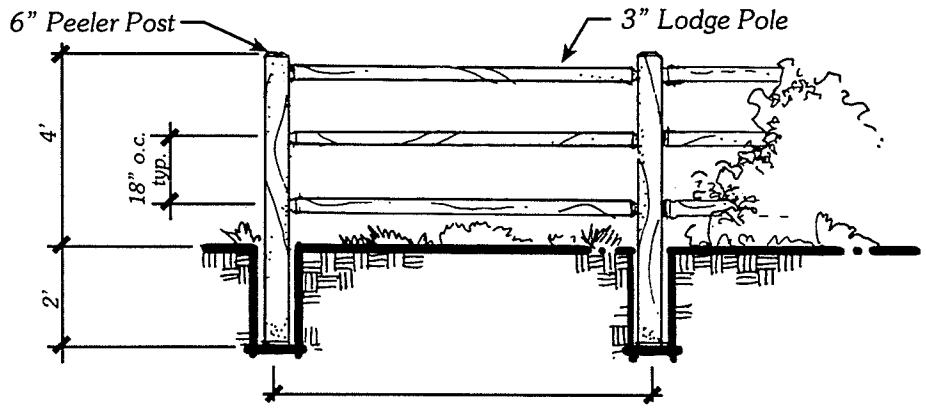
Side Elevation



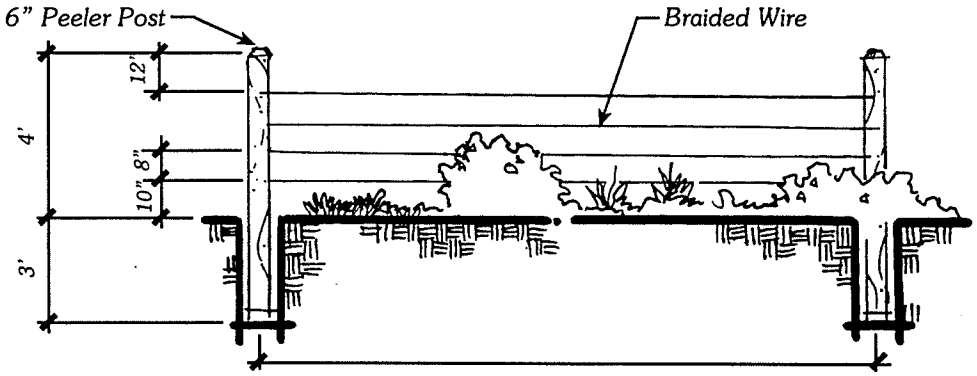
Front Elevation

Typical Trail Shade Structure

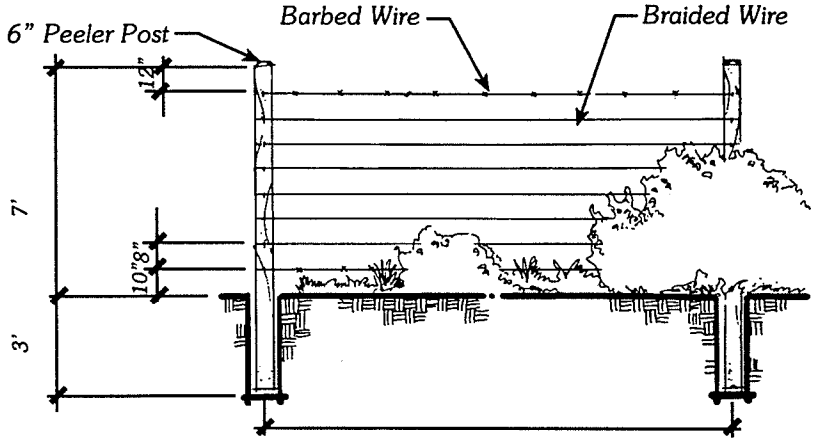
Figure 93. Trail Amenities



Trail Access Fence



Separator Fence



Trail Fence

Figure 94, Trail Fencing

Specific Design Standards

Throughout the Trail study area there are conditions that warrant specific design solutions. These designs are represented in the following figures and are referenced to a location on the Trail in Section 8.0 of this document. The designs are preliminary intended to assess preliminary costs and design solutions. Designs are not based on comprehensive engineering design data.

Figure 95. Existing Highway 126/Haun Creek Crossing

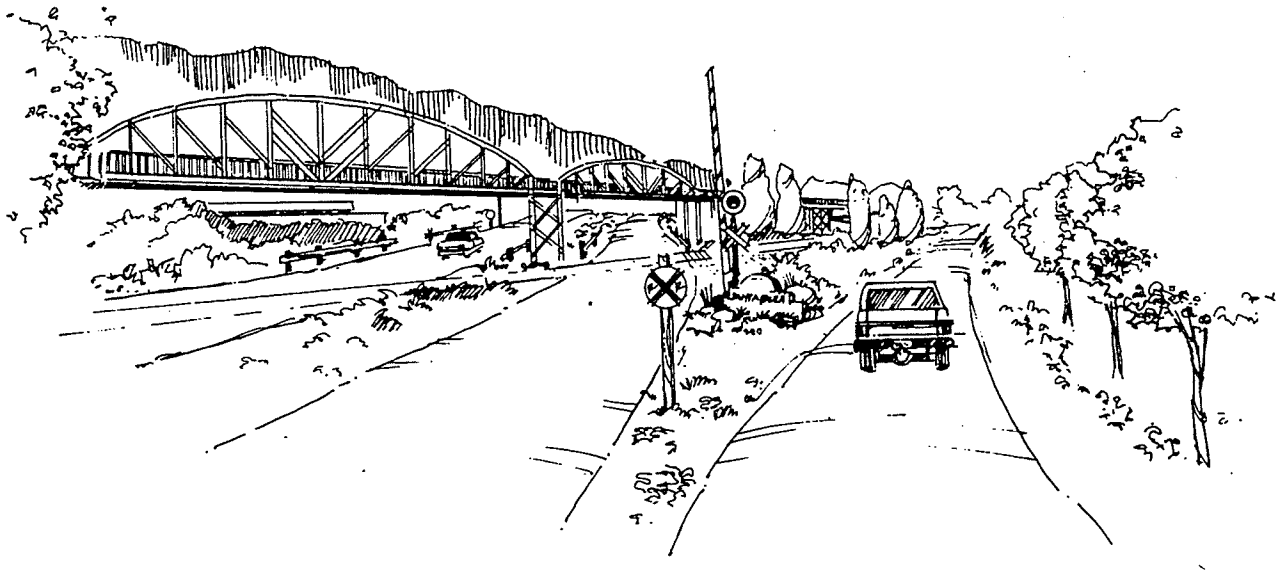


Figure 96. Proposed Highway 126/Haun Creek Crossing

figure 97. Typical View of Existing Trail

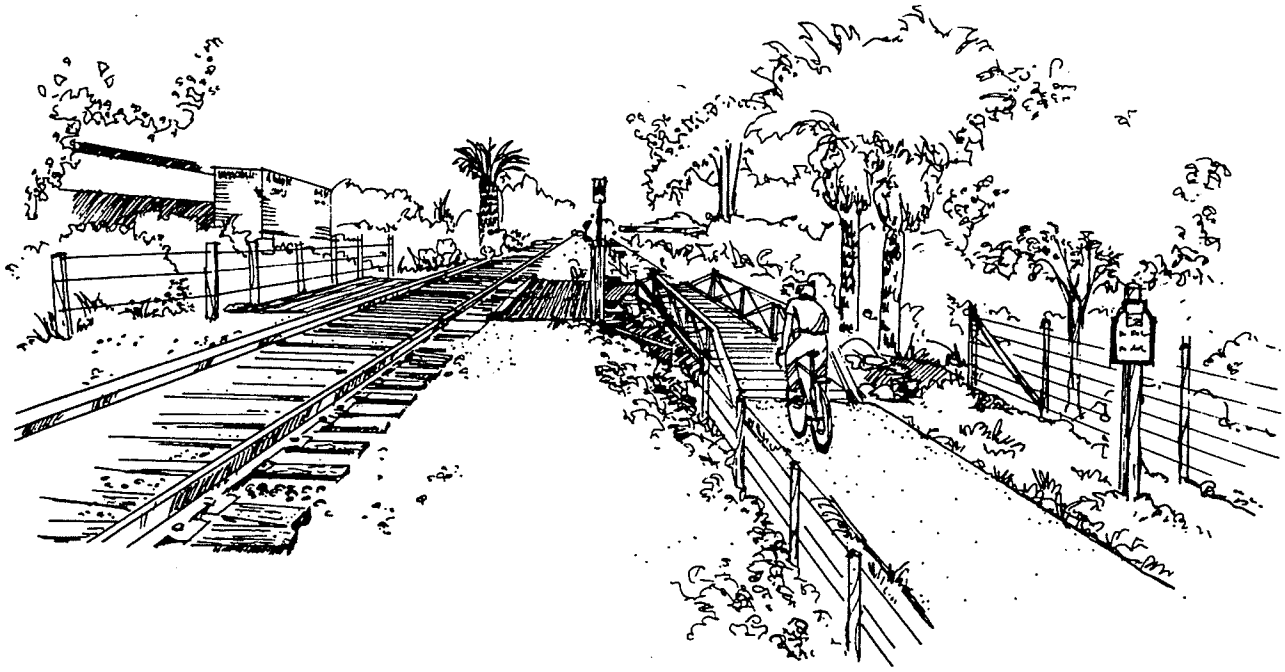
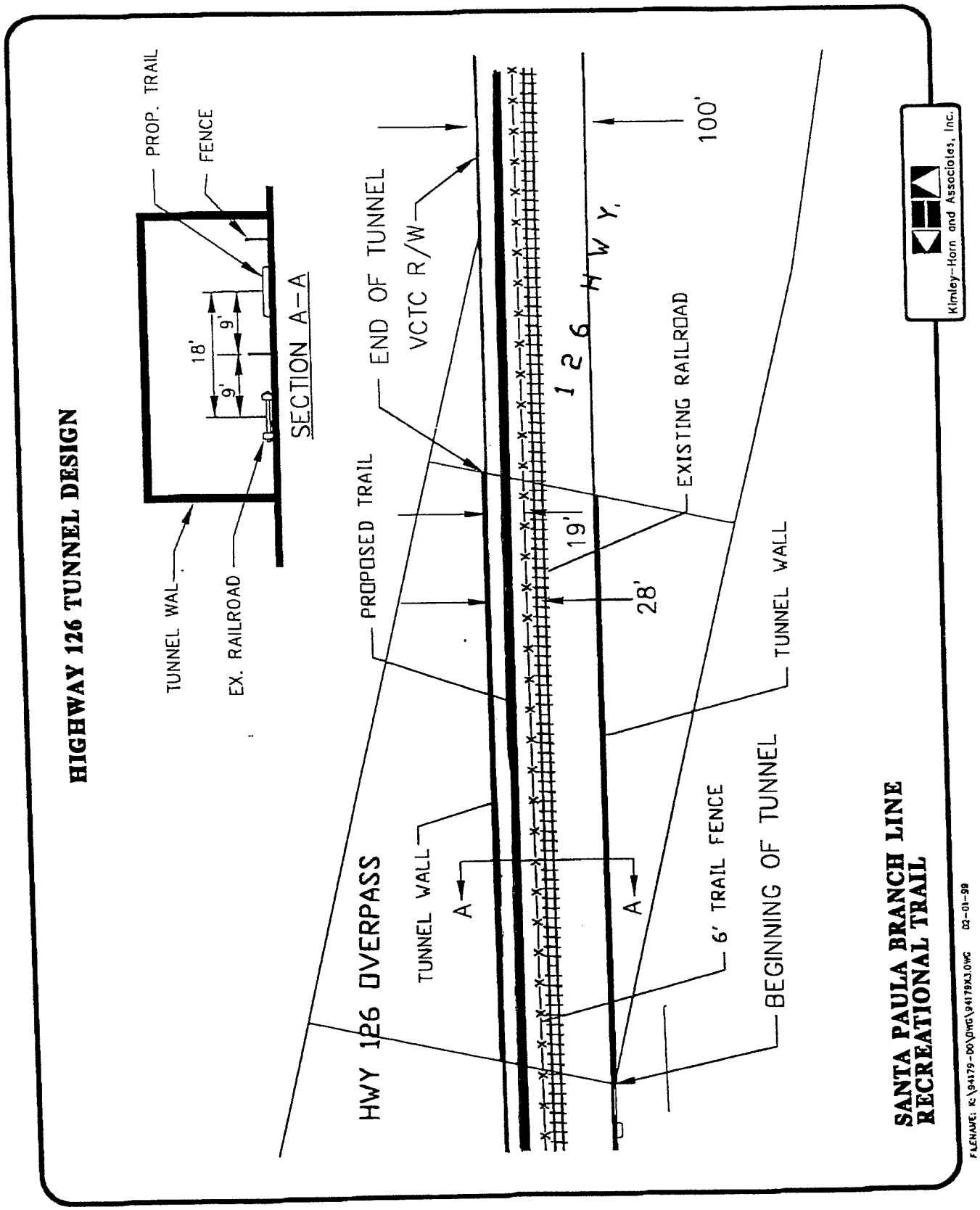
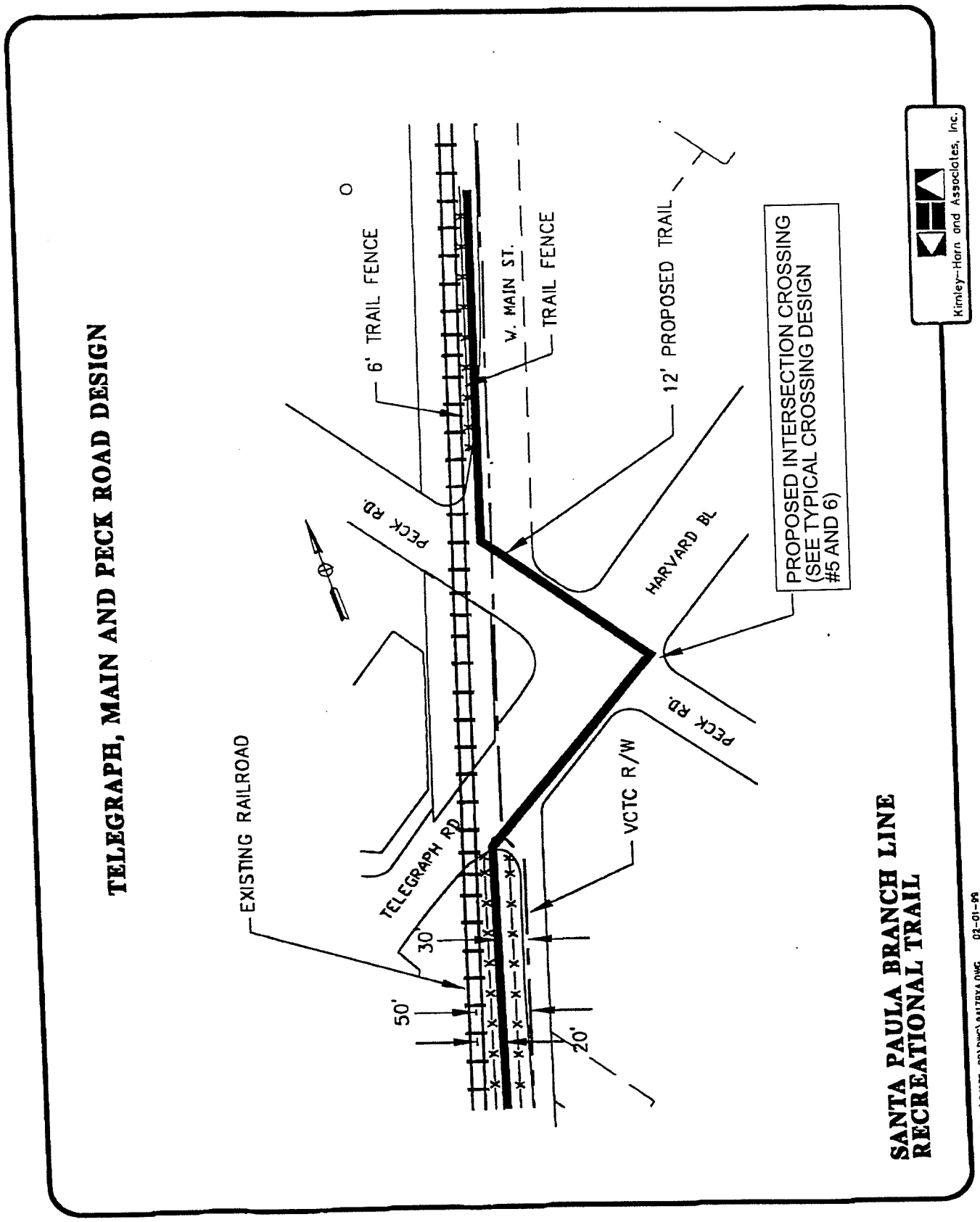
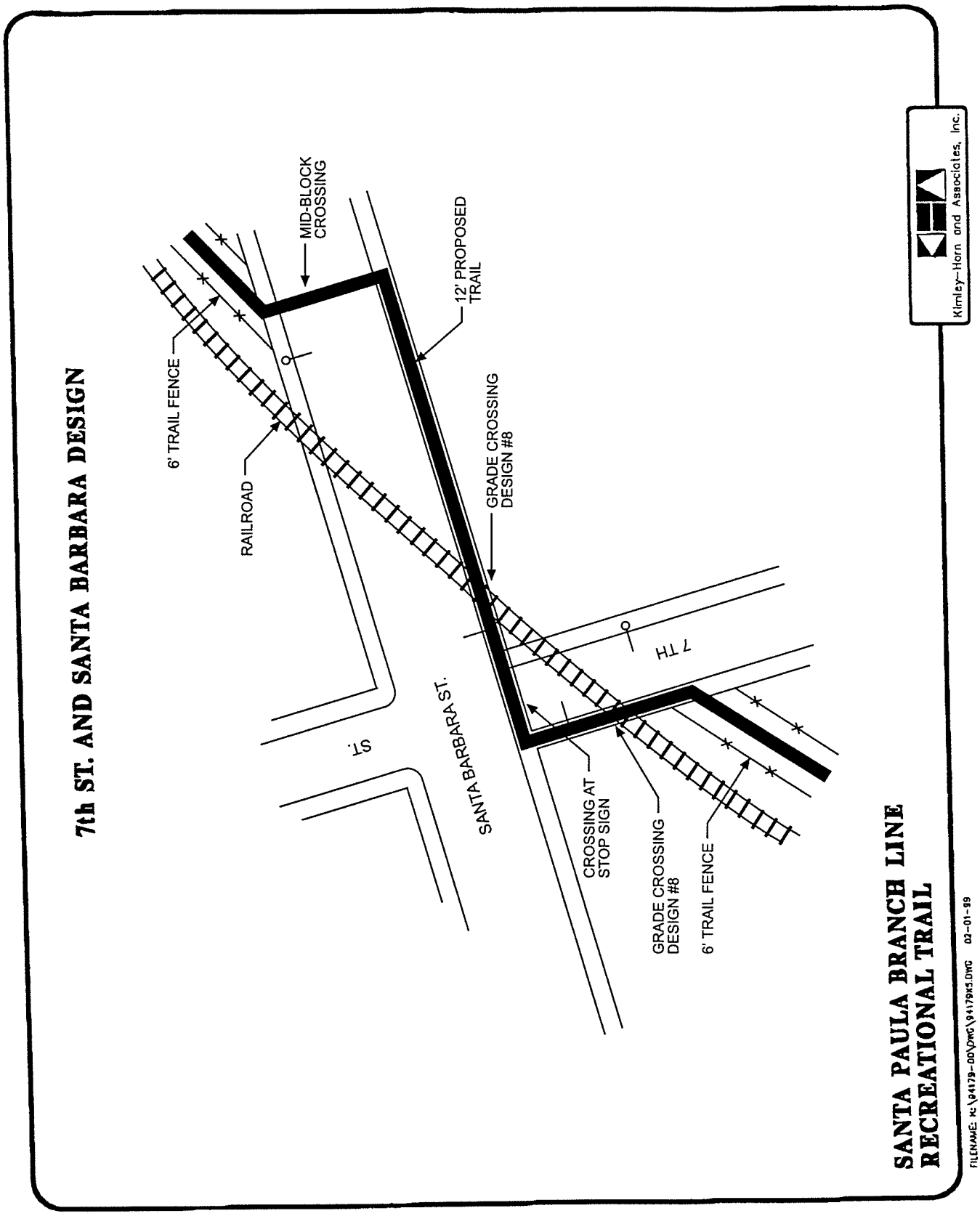
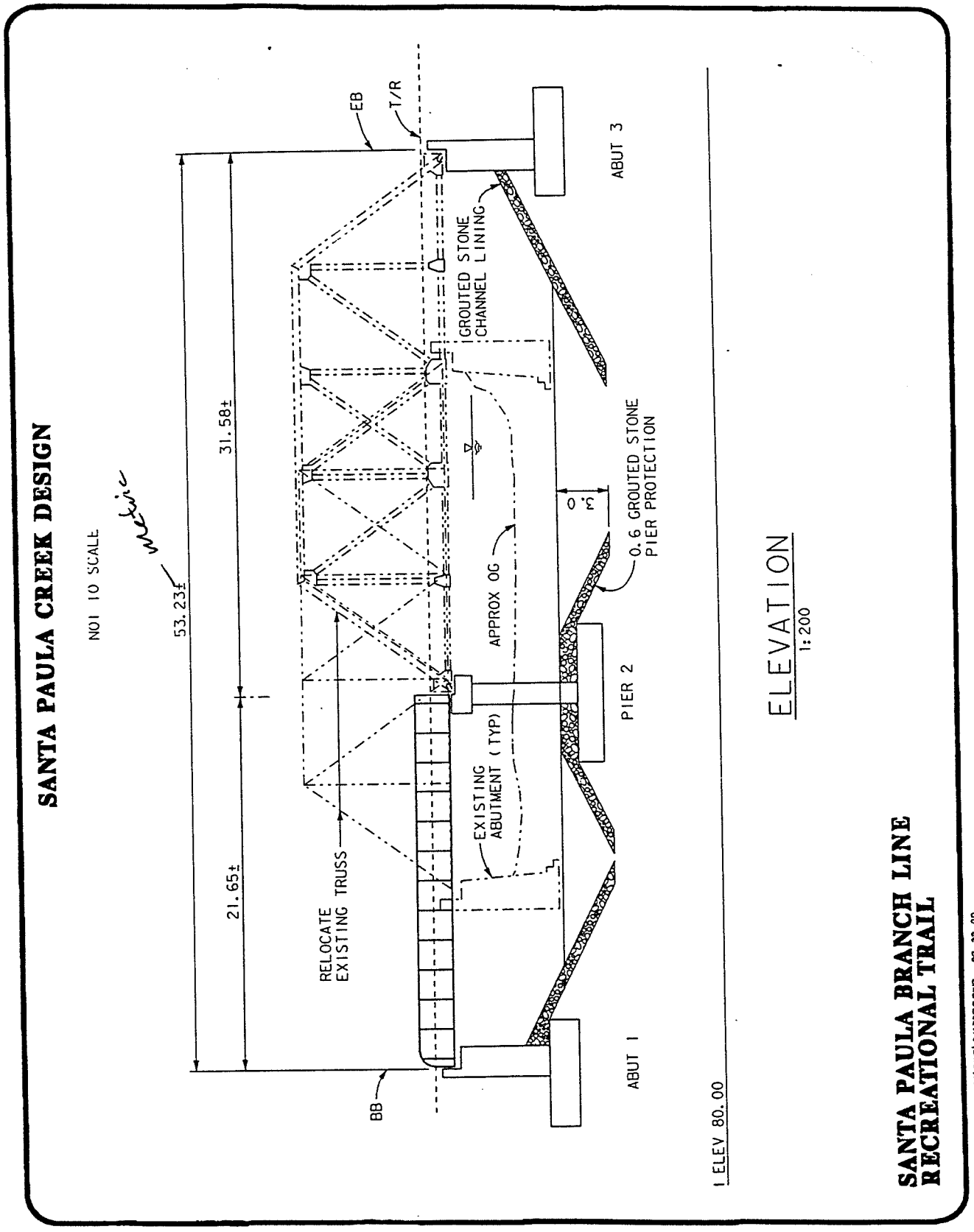


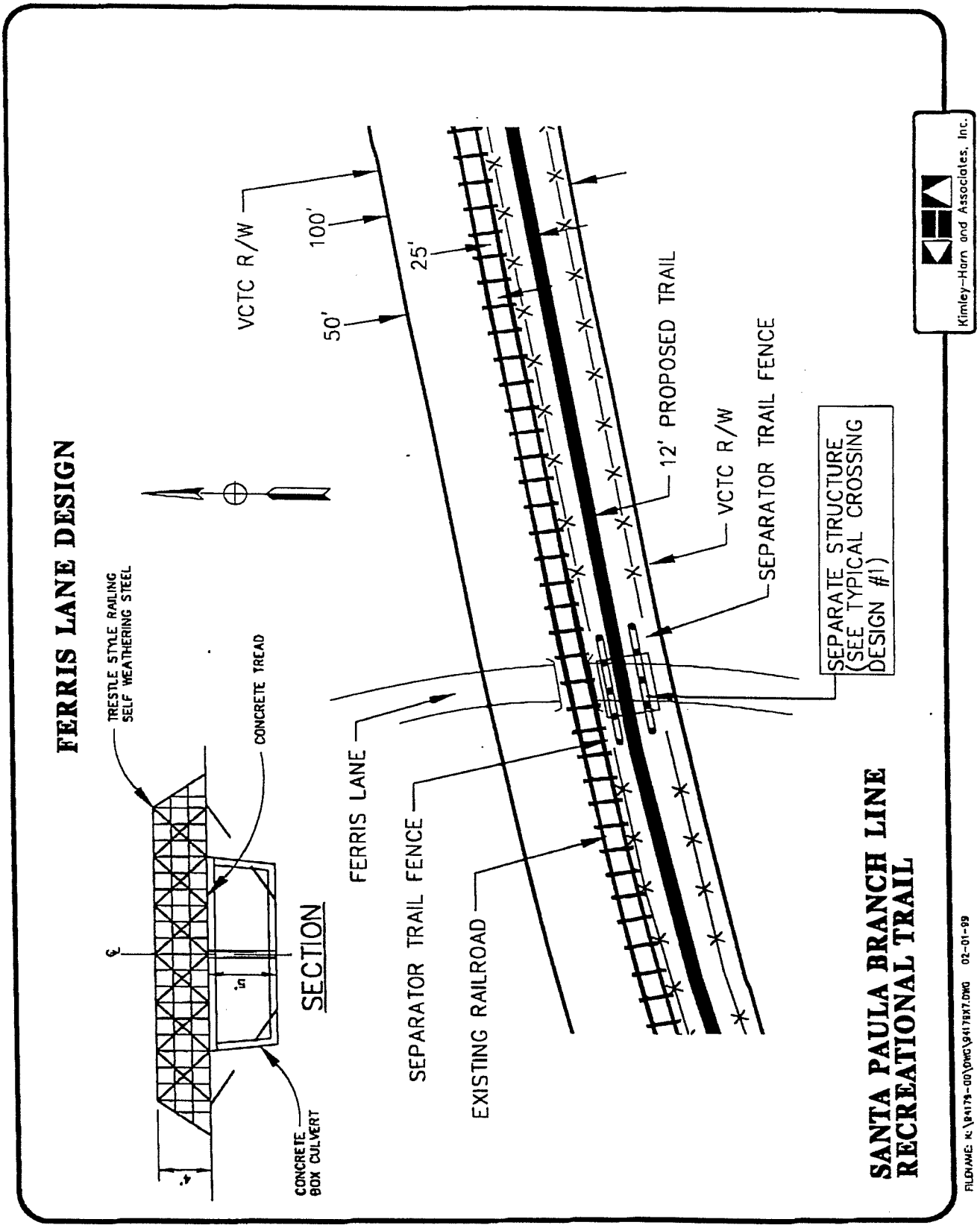
Figure 98. Typical View of Trail Proposed

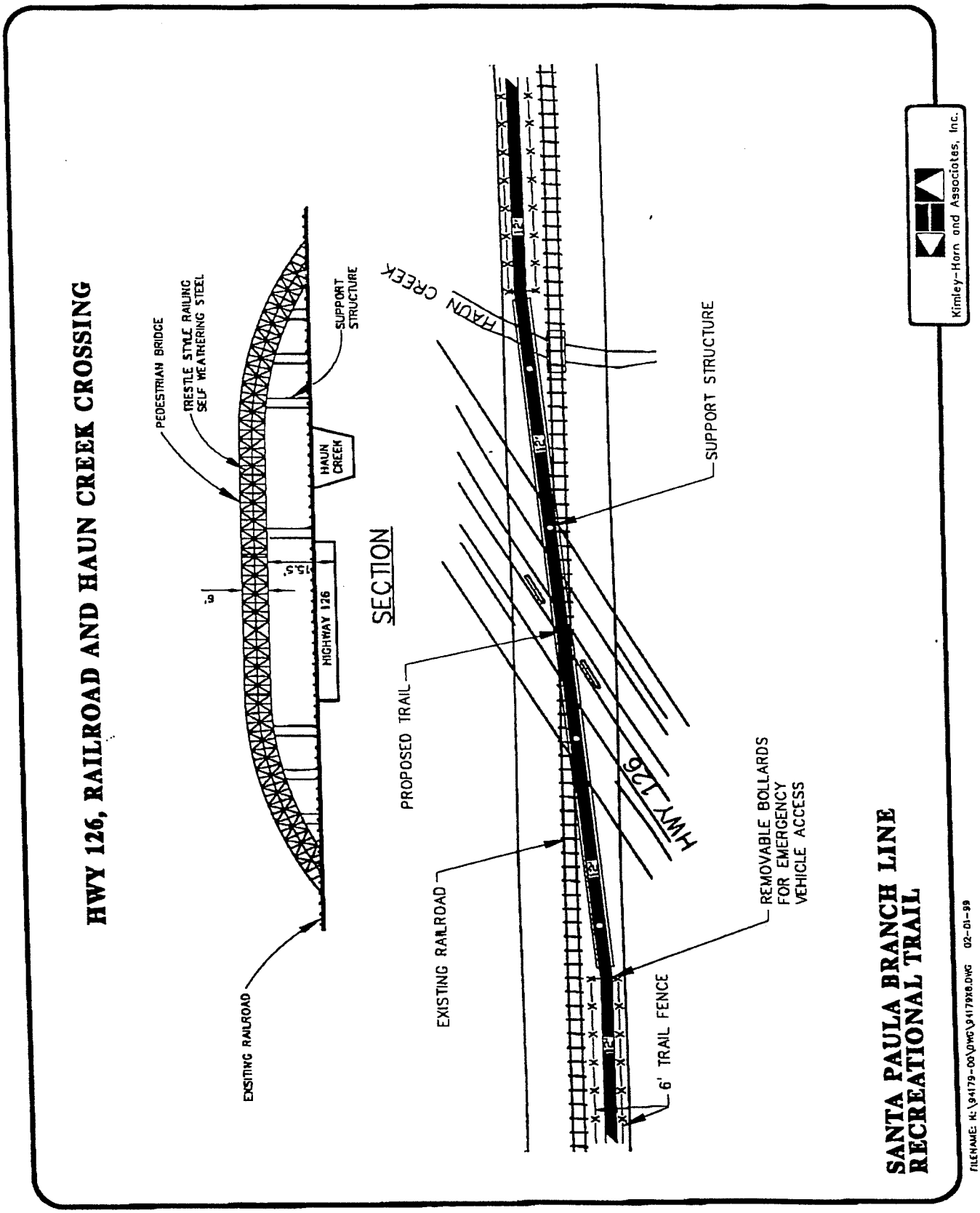

HIGHWAY 126 TUNNEL DESIGN
PROP. TRAIL
FENCE
18'
9'
9'
SECTION A-A
TUNNEL WAL
EX. RAILROAD
PROPOSED TRAIL
END OF TUNNEL
VCTC R/W
126 HWY.
100'
EXISTING RAILROAD
19'
28'
TUNNEL WALL
HWY 126 OVERPASS
TUNNEL WALL
A
A
6' TRAIL FENCE
BEGINNING OF TUNNEL
SANTA PAULA BRANCH LINE
RECREATIONAL TRAIL
Kimley-Horn and Associates, Inc.
FILENAME: K:\94179-00\DWG\94178XJ.DWG 02-01-99


TELEGRAPH, MAIN AND PECK ROAD DESIGN
EXISTING RAILROAD
TELEGRAPH RD.
PECK RD.
6' TRAIL FENCE
W. MAIN ST.
TRAIL FENCE
12' PROPOSED TRAIL
HARVARD BL
PECK RD.
PROPOSED INTERSECTION CROSSING
(SEE TYPICAL CROSSING DESIGN
#5 AND 6)
VCTC R/W
30'
50'
20'
Kimley-Horn and Associates, Inc.
SANTA PAULA BRANCH LINE
RECREATIONAL TRAIL
FILENAME: K:\94179-00\DWG\94179X4.DWG 02-01-99


7th ST. AND SANTA BARBARA DESIGN
MID-BLOCK CROSSING
12' PROPOSED TRAIL
6' TRAIL FENCE
RAILROAD
GRADE CROSSING DESIGN #8
7TH
ST.
SANTA BARBARA ST.
CROSSING AT STOP SIGN
GRADE CROSSING DESIGN #8
6' TRAIL FENCE
Kimley-Horn and Associates, Inc.
SANTA PAULA BRANCH LINE RECREATIONAL TRAIL
FILENAME: K:\94179-00\DWG\94179MS.DWG 02-01-99


SANTA PAULA CREEK DESIGN
NOT TO SCALE
53.23±
31.58±
21.65±
EB
T/R
ABUT 3
GROUTED STONE CHANNEL LINING
APPROX OG
0.6 GROUTED STONE PIER PROTECTION
PIER 2
EXISTING ABUTMENT (TYP)
RELOCATE EXISTING TRUSS
ABUT 1
BB
ELEV 80.00
ELEVATION
1:200
SANTA PAULA BRANCH LINE
RECREATIONAL TRAIL
FILENAME: K:\94179-00\DWG\94179FIG.DWG 02-22-99


FERRIS LANE DESIGN
TRESTLE STYLE RAILING SELF WEATHERING STEEL
CONCRETE TREAD
SECTION
CONCRETE BOX CULVERT
VCTC R/W
100'
50'
25'
FERRIS LANE
SEPARATOR TRAIL FENCE
EXISTING RAILROAD
12' PROPOSED TRAIL
VCTC R/W
SEPARATOR TRAIL FENCE
SEPARATE STRUCTURE (SEE TYPICAL CROSSING DESIGN #1)
SANTA PAULA BRANCH LINE RECREATIONAL TRAIL
Kimley-Horn and Associates, Inc.
FILENAME: K:\94179-00\DWG\94178X7.DWG 02-01-99


HWY 126, RAILROAD AND HAUN CREEK CROSSING
SECTION
PEDESTRIAN BRIDGE
TRESTLE STYLE RAILING SELF WEATHERING STEEL
SUPPORT STRUCTURE
HAUN CREEK
HIGHWAY 126
EXISTING RAILROAD
HAUN CREEK
SUPPORT STRUCTURE
PROPOSED TRAIL
EXISTING RAILROAD
HWY 126
REMOVABLE BOLLARDS FOR EMERGENCY VEHICLE ACCESS
6' TRAIL FENCE
SANTA PAULA BRANCH LINE
RECREATIONAL TRAIL
Kimley-Horn and Associates, Inc.
FILENAME: K:\94179-00\DWG\94179X8.DWG 02-01-99

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Signing and Marking

Uniform sign design and logo theme will be provided along the trail. Signing and marking will unify the Trail design and provide functional information. Elements such as; bollards to prevent unauthorized trail access, mile post markers to identify specific locations along the trail, directional signs to various places of interest and user services, informational and traffic control signs and a Trail logo will all provide necessary information and help to unify the design.

Signs along the Trail should be designed to meet all of the required and recommended signing and marking standards developed by Caltrans in Chapter 1000 of the Highway Design Manual. In addition, all signs and markings should conform to the standards developed in the Manual of Uniform Traffic Control Devices (MUTCD)

In general, all signs should be located at least 3 to 4 feet from the edge of the paved surface, have a minimum vertical clearance of 8.5 feet when located above the trail surface and be a minimum of 4 feet above the trail surface when located on the side of the trail. All signs should be oriented so as not to confuse motorists. The designs (though not the size) of signs and markings should be the same as used for motor vehicles.

Directional signing may be useful for trail users and motorists alike. For motorists, a sign reading 'Santa Paula Branch Line Rail Trail Xing' along with a trail emblem or logo helps both warn and promote use of the trail itself. For trail users, directional signs and street names at crossings help direct people to their destinations.

Other barrier types between the Trail and private property may be used such as ditches, berms and/or vegetation. Recommended vegetation types should be low-water low-maintenance . Ditch or berm gradients should not exceed 2:1 slopes or be greater than 10 feet in depth or height. Refer to Figure 89 for trail marking and sign examples.

Trail Amenities and Features

In addition to user facilities at rest stops and staging areas, trail amenities in the form of benches, shade structures, informational signs and trash containers will be located along the trail in strategic locations . The design of these elements is intended to reflect the rustic and historic character of the Valley. The use of wood, stone, wire fences, self weathering (rusted) steel and other rustic materials will reinforce this image. Refer to Figures 88-94 for examples of trail amenities.

Trail Fencing

Fencing along the Trail will vary depending on the location and agreements between adjacent land owners and VCTC. Fencing is primarily designed to augment the ITS surveillance system and to bar unauthorized access on or off the VCTC ROW from adjacent public or private property. The following describes the types of fencing at various locations.

Trail Fence in Urban Areas

In urban areas a fence may be used to separate the Trail from adjacent property. The design and use of this fence is subject to the discretion of each local jurisdiction. The style of the fence in urban areas shall reflect the design character established by local design plans. Fencing types may include wood, wood substitute, stone and wrought iron, wrought iron or other suitable materials excluding chainlink materials.

Trail Fence in Rural Areas

In rural areas a fence will be used when required by either VCTC or the adjacent land owner. In some cases no fencing may be installed when both VCTC and the adjacent land owners are in agreement. The Trail fence when employed will be a 6' high peeler post and wire fence as shown in Figure 94. The fence will be located a minimum of 8' from the outside of the Trail surface. The specific location of the Trail fence will be determined at the time of Trail construction by mutual agreement between VCTC and adjacent land owner. Where authorized private farm crossings exist or are planned, VCTC and adjacent land owner will mutually determine the most appropriate method of secured gated access.

Separator Fence

A low fence separating the Trail from the Railroad tracks throughout the study area will be installed. In urban areas the design and style of this fence is subject to the discretion of each local jurisdiction and shall be consistent with adopted local design plans.

In the rural areas the separator fence shall be a 4' high peeler post and wire fence as shown in figure 95.

Trail Access Fence

In locations where the VCTC ROW crosses a public street, access to the ROW shall be limited by the use of a Trail access fence. This fence shall be a 4' high peeler post and lodge pole rail wood fence as shown in Figure 95. This fence shall connect to the Trail and Separator fences eliminating unauthorized access at these locations.

Utilities and Lighting

Surface and sub-surface utilities are located within the railroad right of way and may impact the location and construction of the Santa Paula Branch Line Rail Trail. Subsurface utilities and infrastructure must be identified during pre-construction activities. Utilities include active and abandoned railroad communications cable, signal and communication boxes, fiber-optic cable, water and sewer lines, and telephone lines. The Santa Paula Branch Line Rail Trail will be designed to avoid having to move most active surface utilities, although utility poles no longer in use may be removed. The trail may be located directly over existing sub-surface utilities assuming (a) adequate depth exists between the trail surface and utility to prevent damage, and (b) agreements can be reached with the utility owner regarding access for repairs and impact to the trail.

Rural sections of The Santa Paula Branch Line Rail Trail are not proposed to have lighting. Individual cities may choose to light portions of the trail, especially where there is considerable evening pedestrian and bicycle commuter traffic. There will be some lighting benefit from existing lighting along adjacent roadways and at crossings.

10.0 Addressing Encroachments and Liability Issues Related to the Trail

Summary of the Issues and Protections Against Liability

Encroachment Issues Related to VCTC Ownership of the Rail Corridor - With or Without a Trail

When VCTC purchased the approximate 32 miles of railroad corridor in October of 1995, it took the property in its "as is" condition, subject to all then-existing leases and other encumbrances of record (there were no monetary liens against the property).

Because of the complex history of the corridor and the fact that the purchase consisted of several segmented parcels, the cost of preparing a title report for the property would have been very high and SPBLAC recommended that VCTC not have a Title Report completed prior to the purchase. As a part of the purchase Agreement, Southern Pacific agreed to defend title to any parcels over which a fee title dispute might arise. VCTC did, however, perform an independent due diligence study to confirm the validity of the Southern Pacific's title as reflected in the documents provided to VCTC by the Southern Pacific. That study revealed no legal encumbrances on the corridor that were not reflected in the deeds and agreements provided by the Southern Pacific.

Inquiries were also made during the preparation of the Trail plan relating to the accuracy of the Trail corridor data and the validity of fee title ownership. In each of those inquiries, deeds were presented which reflected railroad agreements with adjacent private property owners which allowed those property owners limited or exclusive use of the right-of-way. A check of each of the deeds produced confirmed that the deed information and dimensions of the right-of-way width were accurately reflected in the corridor study area mapping.

There are, however, several illegal encroachments by adjacent land owners on the corridor, including, but not limited to, buildings, storage facilities, roads, crops, fenced yards and residential structures. As a consequence of those illegal encroachments, VCTC must take steps to ensure that it is legally protected against claims which might be made arising from illegal and unauthorized activities on the Right-Of Way.

Dealing With Illegal Encroachments.

One method available to protect VCTC right-of-way against claims by those illegally encroaching on the corridor is to fence the edges of the full expanse the right-of-way (100 feet in most cases) from the adjacent private property, allowing, of course, for the legal uses permitted by valid easements and agreements which VCTC assumed in the purchase or subsequently executed. In fact, several of the original deeds require hog-tight fencing between the rail corridor and adjacent

private property, which apparently has never been provided. Fencing after notice to illegal encroachers would help to preclude the illegal uses of the property by others and afford VCTC greater legal protection from claims which those illegally encroaching on the corridor might raise.

Another method to protect VCTC would be to enter into agreements with adjacent land owners for use of VCTC property not needed for rail or Trail purposes. However, until the Trail alignment is formalized, it will be impossible to determine which portions of the right-of-way will be surplus to VCTC's needs. Adoption of the Trail Master Plan will establish the Trail's alignment and allow VCTC to remedy the unauthorized encroachments in a way mutually beneficial to most adjacent land owners and VCTC.

Issues Related to Adjoining Landowners

Much of the land which abuts the VCTC corridor is held in privately owned agricultural interests. Some other private property abutting the corridor, primarily near the cities of Ventura, Santa Paula and Fillmore and the community of Piru, is in residential, industrial and commercial use. The agricultural interests along the corridor have expressed concerns about potential (a) claims made by Trail users who intentionally or unintentionally trespass on the adjacent property and (b) liability for injury to Trail users on the Trail arising out of the activities of adjacent land owners on their own land or legal easement (e.g. spraying, operation of mechanical equipment) and (c) the potential for vandalism to and theft from their property by trespassers who access their property via the Trail. Legal protections available to VCTC and the private landowners as well as methods to mitigate those concerns are discussed below.

Protections Against Claims Against Adjacent Landowners

In addition to the design and operational protections discussed below, there are existing legal protections available to the adjacent landowners against claims by Trail users and trespassers on their land.

State law (California Public Resources Code § 5075.4) was designed to protect private property owners whose land lies adjacent to a public trail where a trail user (a) trespasses on the adjacent private property and is injured or killed and (b) where an activity started or taking place on the trail (by someone other than the adjacent landowner) results in injury to, or death the of, a person or damage to the property of another. As a result of the statute, the adjacent private land owner would be free of liability for injury to trespassers (or in the event of a death, liability to the trespasser's heirs). The statute holds the adjacent land owner free of liability for any activity undertaken or started on the trail which results in injury to another person or another's property or death of another person on the private adjacent land.

Based upon the statutory exemptions for liability of the adjacent land owners described above, a defense against such claims made in a legal action may be made by demurrer (which means that

even if everything the claimant says is true, the adjacent landowners has no liability because the statute exempts him from liability) and/or a motion for summary judgment (which means the claim is not one for which a legal remedy is permitted because the statute exempts the defendant from such liability). VCTC has devised an agreement to be offered to the adjacent land owners wherein VCTC would agree to undertake the defense of the adjacent land owner under the circumstances protected by this statute and continue that defense through the earlier of a dismissal of the land owner from the legal action because of the statutory protections or a finding that the facts upon the claim is based do not conform to those required to obtain the protection of the statute.

In the some 24 years since Public Resources Code § 5075.4 was adopted, there has been no appellate case regarding the statute. That means that, if there has been litigation in which the statute was raised as a defense, no judgment was appealed. That is a good indication that the liability level of private property owners adjacent to trails is very low.

Furthermore, the Ventura County Agricultural Commission has stated that he is "... unaware of any claims brought against [private] landowners by users [of public roads or right of way], nor am I aware of any public roads or ROW (right-of-way] where traffic is prohibited solely because of agricultural operations."

Issues Related to Operation of the Trail

The land underlying the Trail is and will be entirely owned by VCTC. Obviously, issues of liability arise for injury to Trail users on the publicly owned and operated Trail.

Protections Against Claims Against VCTC.

VCTC maintains insurance to cover claims of liability for injury to Trail users. In all of the agreements VCTC reaches with adjacent land owners to resolve any of the illegal encroachments issues by a grant of easement, license or other legal right for temporary use of a portion of the corridor, VCTC will include indemnity and hold harmless clauses for protection of claims by such users against VCTC.

Furthermore, Government Code § 831.4 provides protection against claims made against public entities for injury on trails. It states:

> "A public entity, public employee, or a grantor of a public easement to a public entity for any of the following purposes, is not liable for an injury caused by a conditions of:
>
> (a) Any unpaved road which provides access to fishing, hunting, camping, hiking, riding, including animal and all types of vehicular riding, water sports, recreational or scenic areas and which is not (a) a street or highway, or (2) county, state or federal highway, or (3) public street or highway of a joint highway district,

boulevard district, bridge and highway district or similar district formed for the improvement or building of public streets or highways.

(b) Any trail used for the above purposes.

(c) Any paved trail, walkway or sidewalk on an easement of way which has been granted to a public entity, so long as such public entity shall reasonably attempt to provide adequate warnings of the existence of any condition of the paved trail, walkway, path or sidewalk which constitutes a hazard to health or safety. Warnings required by this subdivision shall only be required where pathways are paved, and such requirement shall not be construed to be a standard of care for any unpaved pathway or roads."

The California Court of Appeals (2nd District) has held that the immunity provided by subsection (b) of the statute is not limited to "access" trails, but includes a trail "whose use itself is the object of the recreational activity." (See, Carroll v. County of Los Angeles (1997) 60 Cal.App.4th 606, 609,610, affirmed in Farnham v. City of Los Angeles (1998) Appellate Case No. B 117963).

Design and Operational Measures to Reduce Liability of VCTC and Adjacent Land Owners.

The potential for vandalism and theft by trespassers who use the Trail to access adjacent private property can be greatly reduced from its present level because of the design protections built into the Trail. There are also criminal penalties for vandals who wreak damage to private property - real and personal. While the potential use of the Trail is projected to be relatively high in urban areas, adjacent private land owners outside of urban areas are likely to enjoy less risk of vandalism than they now experience because of the design and operational protections outlined below.

Design Features.

The Santa Paula Branch Line Rail Trail will be located directly adjacent to private properties along much of its proposed alignment. Neighbor concerns typically include a loss of visual privacy and concerns about increased crime, vandalism, theft, trespass and noise. The following design measures are incorporated into Trail alignment and design features contained the Trail Plan:

- Wherever possible, the Trail should be located as far away from adjacent private property as possible to protect adjacent property owners and VCTC.
- Use of Intelligent Transportation Systems (ITS), such as surveillance cameras, automated information kiosks and electronic signs to monitor Trail activities; e.g. trespassers on adjacent private property, and to alert Trail users and riders of Trail conditions. Such conditions might necessitate Trail closures (generally of isolated sections) for spraying or burning on adjacent private property, farm equipment crossing the Trail and or maintenance activities on the Trail itself.

- Fencing may be used as part of the Trail's construction to separate adjacent private property from the Trail and to help keep Trail users out of the adjacent private property. Fences would augment the protections afforded to the Trail by the ITS system. Refer to Chapter 9 in this document for details about types, locations and design of fences.
- Fencing design will include provisions for gates at existing authorized private at grade crossings when fencing is deemed necessary.
- Mile markers along the Trail which will facilitate mapping useful to Trail users and emergency response procedures.
- Call boxes along the Trail for use in an emergency.
- Posting of notices to Trail users at all entrance, crossings and fenced areas will provide adequate notice (and warning) of potential hazards and call out the boundary between the Trail and adjacent private property, thus protecting adjacent land owners from trespass by Trail users.
- Posting signs along the Trail which will notify Trail users of the boundaries of adjacent private property.

Operational Protections

In addition to the protections inherent in the design characteristics noted above, operational measures can aid in protecting the public, VCTC and adjacent private property owners. Among those measure to be included in Trail management for such protections are:

- Security personnel will patrol Trail segments to augment the protections afforded by the ITS cameras and monitoring techniques.
- Legislation which impose fines - expected to be high - for trespass violations will be sought by VCTC.
- On-going maintenance of the Trail will occur on a regular, as-needed basis.
- A public forum composed of Trail users. VCTC, affected local jurisdictions and adjacent private property owners will monitor Trail activities, violations of Trail regulations and problems experienced by adjacent private property owners to ensure the adequacy and success of Trail operations.

11.0 Interface of Trail and Agricultural Operations

Introduction

From the onset of the Trail planning process a key focus was to accurately identify and resolve agricultural land use compatibility issues. Several methods of information collection and issue resolution relating to agricultural operations were employed during the Trail planning process. These included the following:

- Individual discussions with agricultural land owners and business operators
- Issue identification and confirmation through the Trail Advisory Committee (also see letter received from Robert Pinkerton in the Appendices)
- Formation of and meetings of the Agricultural Subcommittee
- Letters sent and follow up phone discussions with adjacent agricultural land owners
- Public Workshops

The issues identified by the agricultural community came through loud and clear. In response to those expressed concerns, a package of mitigation measures (solutions) are presented below. Some of the proposed solutions are design-related and other solutions are operational in nature (a function of the on-going management of the Trail). All are supported as to their effectiveness by statistical information relative to existing multi-use trails.

Mitigations

The set of solutions in the "mitigation package" are solid in their foundation and venture far beyond what has been offered for other multi-use trails with similar adjacency concerns. The appropriateness and/or effectiveness of the measures presented below may not be embraced in full or in part by the Ag. Subcommittee, but when implemented in their entirety, are intended to inherently minimize or reduce impacts to agricultural operators and adjacent landowners.

The mitigation measures that are summarized further in this chapter are contained in other chapters of the Trail Master Plan as outlined below:

- Design and Alignment Characteristics - (Chapters 8 and 9)
    - Addressing the physical characteristics of the trail, including paving, fencing, landscaping, and street crossing design, etc.
- Construction and Implementation Measures - (Chapter 12)
    - Addressing phasing of construction and appropriate future levels of permitting.
- Trail Management Parameters - (Chapter 14)

- Addressing on-going and day-to-day operations of the trail, including its maintenance and safety operations. This chapter also contains the monitoring framework to assure that the adopted Trail Master Plan policies and requirements are implemented.

The following are solution/mitigation measures proposed to address agricultural operation compatibility. The solutions are paraphrased and listed under each respective issue or topic that has been raised during the Trail planning process.

SECURITY (THEFT, VANDALISM, TRESPASS)

Intelligent Transportation System (ITS)

- Surveillance cameras and monitoring of activities along the Trail corridor through advances in transportation technology systems will provide for around-the-clock monitoring.
- Video cameras and related detection zones will enable Trail manager and/or law enforcement personnel to document and monitor trail activity and shorten safety response times.
- Video and motion detectors linked to automated gates installed at authorized private at-grade crossings will maintain ease in movement for farm equipment and related agricultural circulation needs.
- Automated information kiosks located at staging & rest areas and at Trail entrance points will alert riders of trail closures and relevant safety information related to agricultural operations. Electronic signs will be located at key segments allowing users to be notified of Trail conditions and closures.

Security Patrol

- Security personnel will be provided to patrol the Trail as necessary. Security will likely be higher during peak period weekends, spring and summer.
- Portions of the Trail visible from adjacent or nearby streets will have the added security of the local City and County police.

Mile-Post Mapping

- Mile-posts will be installed with corresponding maps distributed to all jurisdictions to promote timelier response.
- All emergency response personnel will be equipped with maps of access points and gates.

Emergency Call Boxes

- Solar powered emergency phones will be installed on an as-needed basis.

Notice Posting

- All trail entrances/crossings will be posted with notices that the trail is adjacent to private property where there are active agricultural operations. Trail users will be advised to stay on the trail and what the ramifications are for trespassing or being on the trail after it is closed.
- Trail users will be advised to be alert to operating machinery and equipment crossing the trails.
- Trail users will be advised that farm operations may include pesticide spraying and burning activities in accordance with State and Local laws/ordinances and that portions of the trail may be closed without notice. User will be warned that use of the trail is at their own risk.

Citation Program Established

- The VCTC can introduce new County-wide legislation that would enable patrol personnel to issue citations to any persons trespassing on private property . Citation fines are to be set at a rate high enough to act as a deterrent (e.g. in Florida the fine is $1,000).
- If new County-wide legislation is adopted security personnel will have the authority to issue citations and/or arrest trespassers.

General Security Measures

- At-grade crossings in urban sections of Trail will be illuminated with overhead lighting.
- Largo Lane and Todd Road under-crossings will be designed so there is adequate visibility the full length of the crossing.
- Graffiti-resistant construction materials will be utilized wherever possible.
- Rules of the Trail will be enforced by security patrols.

Limited Vehicle Access

- Access to the trail from adjacent Public streets, roads and other public rights of way will be limited to authorized security, and maintenance vehicles only.
- Public access will be controlled by dedicated security patrol and by the installation of fencing, gates or bollards as deemed appropriate to each situation.

Fencing

- Fencing will be provided as shown in Chapter 9 for both Rural and Urban sections. With the application of Intelligent Transportation systems, the need for fencing is largely

reduced and will serve to augment ITS security in rural areas and as a decorative feature in urban areas.

- To mitigate negative aesthetic impacts of the fence, plant material such as vines and/or climbing ivy and other plants will be used. Any proposed plant material along the trail will be selected in conjunction with adjacent property owners on a case by case basis.
- Absent a request by an adjacent property owner the trail corridor will be fenced. Refer to fencing design in Chapter 9. Property owners may request to omit fencing along their frontage on a case by case basis. The trail manager may deny a request based on reasons of liability.

Landscaping

- Any landscaping used in rural areas shall be approved by the agriculture commissoners office. Plant material which may host pests destructive to agriculture is prohibited.

LIABILITY AND INSURANCE

Draft Trail Agreement for Legal Defense Claims

- The VCTC will make the terms of the Trail Agreement available to all adjacent agricultural property owners (contained in Appendices).
- Under the terms of the Trail Agreement, the VCTC will provide the legal defense for an adjacent property owner when the terms of the agreement apply (see the Draft Trail Agreement and Explanatory Memorandum form VCTC Legal Counsel within the Appendices).

PESTICIDE SPRAYING

Notices Posted

- All Trail entrances will be posted with notices of on-going agricultural activities and stating that the Trail user agrees to using the Trail at his/her own risk.
- Notices will state that the Trail is subject to closure without notice to accommodate such activities.

Ability for Trail Closures

- The Trail will be designed with the ability for its physical closure (of isolated segments) in the event it becomes necessary to facilitate permitted spraying.
- The trail manager will responsible for closures when appropriate.

BURN ACTIVITY

Notices Posted

- All Trail entrances will be posted with notices of on-going agricultural activities and that the Trail user agrees to using the Trail at their own risk.
- Notices will state that the Trail is subject to closure without notice to accommodate such activities.

Trail Management Closure

- During peak burn times, the Trail manager will check burn day status and initiate closure of the affected segments of the Trail.

CONTINUED USE OF VCTC ROW/EQUIPMENT ACCESS

Use of ROW

- Currently there are many encroachments into VCTC ROW. It is the objective of VCTC to allow continued use of excess ROW for agricultural use by an adjacent property owner subject to the needs of specific Trail alignments, design and other individual site conditions. All use of adjacent VCTC ROW will be mutually agreed upon by VCTC and adjacent property owners on a case by case basis.

Installation of Gates

- In consultation with and upon approval by private crossing lease holders gates will be designed and placed at existing authorized private at-grade crossing.

GENERAL TRAIL MAINTENANCE

Weed Abatement

- Weed abatement will be conducted by the Trail manager on an as-needed basis.

Trash Disposal

- The Trail manager will dispose of trash in trash receptacles along the Trail on an as-needed basis (daily, weekly, monthly).
- Litter (loose debris) clean-up along the Trail will be conducted in conjunction with routine trash disposal runs.
- Adopt-a-trail programs will be initiated by the Trail manager to aid in litter pick up.
- Establishing "Littering Hotline" for dumping incidents will allow incidents to be reported to the Trail manager by either the routine security patrols, the general public using the Trail, or a property owner.
- The Trail manager will dispatch and respond to dumping incidents promptly.

Paving and Pot Hole Maintenance

- Paving, repair, striping, etc.. will be evaluated annually and incorporated into the operation and maintenance budget each year.

Rest Stop and Staging Area Maintenance

- All rest stop and staging areas will be checked routinely, cleaned, and maintained.

DRAINAGE

Drainage Improvements During Trail Construction

- Drainage improvements to accommodate the Trail section will be made in conjunction with Trail construction.
- Trail design will be engineered so as not to increase any historic run off onto a property.
- Drainage engineering will be coordinated with any adjacent and regional efforts that may be underway at the time to resolve historical problems to the greatest degree feasible.
- A combination of culverts, channelization and improved bridge crossings will occur in conjunction with trail construction.
- Trail engineering will focus on methods to minimize siltation maintenance issues.

Drainage Facility Maintenance

- Annual cleaning of drainage channels within the VCTC ROW prior to storm season and on an as-need basis will be routine maintenance for the Trail manager or lease holder if property has been leased to adjacent landowner..

DUPLICATION OF TRAIL PLANNING EFFORTS

County Legislation to Focus Trail Effort

- The VCTC will initiate a General Plan Amendment (or appropriate equivalent policy action) with the County which, if approved, would focus a singular trail planning effort through the Santa Clara River Valley on the rail corridor. The purpose of such a policy effort would be to eliminate all present and future planning efforts to establish a second trail of similar alignment.

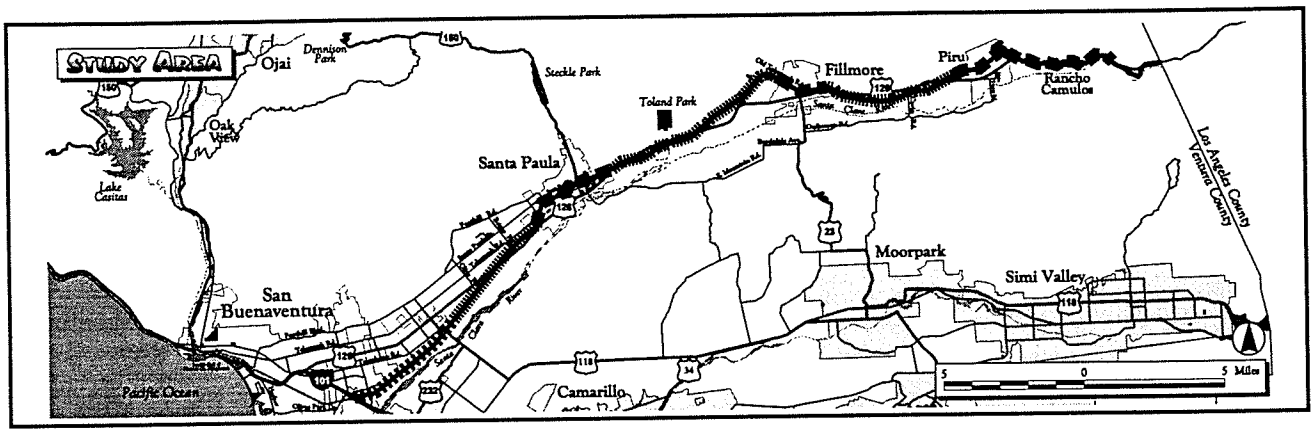
TRAIL MONITORING

- Trail implementation will be closely monitored by Trail manager and a community-based monitoring group (with Ag representation) for continued evaluation of all operations and maintenance of the Trail. This monitoring group will provide recommendations for remedial actions consistent with adopted master plan goals and implementation programs.

12.0 Implementation Plan

Phasing

The trail will be constructed in phases. Several options for suggested phasing will be presented after coordinated discussion with the VCTC staff. The phasing options could range from a single unified project overseen by the VCTC to urban areas being implemented first as funding becomes available.



Legend

- PHASE A: 1-5 Years (Fillmore, Santa Paula, Piru to Camulos)
- PHASE B: 5-10 Years (Ventura to Saticoy)
- PHASE C: 10 Years & Beyond (Agricultural Areas)

Funding

Funding for planning, design and construction of the Rail Trail will come from a variety of local, state, and federal transportation programs. It is also possible that non-transportation sources of funding, such as redevelopment funds, local development fees or construction in association with new development, will be used toward the development of the Rail Trail. Because it is anticipated that dedicated transportation funding programs will be the source for most of the Rail Trail's planning and development, this section focuses on those programs.

Local - Each year, up to two percent of Ventua County's Local Transportation Fund revenues are set aside and allocated by VCTC to local bicycle and pedestrian projects. These funds, authorized under Article 3 of the Transportation Development Act (TDA), have totaled about $300,000 annually. These funds are allocated by VCTC each June to local projects selected through a competitive countwide process.

State - The State of California has established a Bicycle Lane Account through which it funds bicycle facility projects on a statewide, competitive basis. Awarded as grants to local jurisdictions, the emphasis is on projects which benefit bicycling for commuting purposes. The program funding amount has recently been increased and is anticipated to reach $5 million per year. Nonetheless, $5 million statewide means the program is very competitive.

Federal - There ae a number federal funding programs available for the planning, design, and construction of the Rail Trail. These programs are a part of the Transportation Equity Act of the 21st Century (TEA 21). The two primary sources are the Congestion Mitigation and Air Quality (CMAQ) and Transportation Enhancement Activities (TEA) programs. The CMAQ program is directed toward the funding of not only bicycle and pedestrian projects, but also transit improvements, park-and-ride lots, clean-fuel vehicles, and other transportation projects benefitting air quality. Other types of projects funded through the TEA program include historic preservation, scenic easements, and landscaping. Both the CMAQ and TEA programs are provided by formula directly to VCTC. VCTC then allocates the funds to projects on a countywide, competitive basis.

In addition to the CMAQ and TEA funds, TEA 21 makes grant opportunities available through nationwide competitive programs such as the "Transportation and Community and System Preservation Pilot Program". In addition, other federal funding opportunities related to Intelligent Transportation Systems (ITS) or Federal Railroad programs may also be applicable to the project.

13.0 Cost Analysis

This Chapter outlines the preliminary estimated costs for construction of a hard surface trail as shown in the alignment and design Chapters. Costs include clearing, demolition, removal of material, grading and drainage and construction of the trail. Separate line items are provided for individual road, highway and drainage crossings, bridges, signs, furnishings and other features of the trail system. This cost analysis is broken into segments and by jurisdiction allowing preliminary cost projections to be made for each separate jurisdiction. These cost estimates are preliminary only. More detailed cost estimates will be prepared at the final design phase for each section of the Trail.

Cost Assumptions

The following tables identify planning-level opinions of probable cost for constructing the Santa Paula Branch Line Recreational Trail. The costs are based upon the trail description contained in the report that describes each of seventeen trail segments. The costs are provided for specific construction-related components of four types of trail improvements: trail construction, crossing construction, trail amenities and smart trail features.

Costs have been summarized and defined for each trail segment, for each jurisdiction and by construction component in a cost opinion summary table. Descriptions of the components for each improvement type and general assumptions that result in the costs are provided below:

Trail Construction

Trail construction costs include grading the area adjacent to the rail line at an average width of 20' and construction of a 12-foot wide asphalt base and paved trail to accommodate bicycle, pedestrian and maintenance vehicles. Costs for drainage in urban areas, pavement markings/ striping to divide the trail lanes, location signage and fencing on both sides of the paved area and drainage facilities in urban areas are also included in the cost. Costs are provided by trail segment. The total trail construction cost is provided in the cost summary table.

Crossing Construction

Typical conceptual designs have been developed for locations where the trail will cross roadways and drainage facilities. In addition, specific concept designs have been developed for six locations where the trail will cross or intersect with locations requiring more specific design ideas. The typical and specific concept designs are described in the report. The costs for design and construction of these crossings includes all structural elements, drainage facility treatments and items not considered in construction of the typical trail sections (paving, striping, signage, etc.). The cost of each crossing is identified, by crossing type, for each trail segment. The total cost of all crossings is provided in the cost summary table.

Trail Amenities

The trail amenities cost component includes comfort and safety features for the trail user. This includes shade structures and interpretive/directional signage would be located at ½ mile intervals, and lighting that would be located in urban areas only. Landscaping (ground cover and trees) would be provided in the urban areas, with trees only provided in the rural areas of the trail. The trail amenities costs also include staging areas at locations identified in the plan for trail users to park their vehicles, unload their bikes or prepare for walking different sections of the trail. Bike racks would be provided only at the staging area locations and at trail access points with other trails, as identified in the trail plan segment descriptions. The cost for trail amenities is provided for each trail segment. The total trail amenities cost is provided in the cost summary table.

Smart Trail Features

The "smart trail" system would include fiber optic communication lines, automated warning systems at selected crossing locations, closed circuit television (CCTV) cameras with pan/tilt/zoom capabilities and video detection throughout the length of the trail. The CCTV would enable remote viewing of the trail for safety and monitoring. CCTV locations are assumed to be located at ½-mile intervals throughout the length of the trail. The video detection cameras would be located at selected crossing locations and would identify vehicles, bicycles and pedestrians and activate warning lights. The fiber optic lines would link the cameras to a trail operations center. This center would be a staffed, physical location not yet identified, with monitors and computers to operate the system. Smart trail costs have been developed for each trail segment cost table. The operations center cost has been identified as a separate cost, and is not apart of any individual trail segment. The total smart trail cost and operations center cost is provided in the cost summary table.

Design

Design costs include final PS&E, environmental and legal processing, surveying and plan check/inspection fees. The cost of these services is estimated based upon a percentage of the cost of the trail construction, crossing construction, trail amenities, smart trail features and construction contingency. The percentage and cost for each design cost element is identified for each trail segment. The total design cost is provided in the cost summary table.

Santa Paula Branch Line
Recreational Trail
OPINION OF PROBABLE COST

ESTIMATED BY: NH
JOB NO.:
FILE NAME: SEG1-17.xls

27-Jul-99
Summary for all jurisdictions
Opinion of Probable Cost

TOTAL COST BY SEGMENT

Segment Number	Segment Description	Cost
1	Johnson Drive to Montgomery Avenue	$ 2,110,434
2	Montgomery Avenue to Old Saticoy Depot	$ 4,698,141
3	Saticoy Depot to Limoneira Property	$ 2,720,601
4	Todd Barranca to Adams Barranca	$ 3,226,854
5	Beckwith Road to Dean Drive	$ 1,768,936
6	Dean Drive to Santa Paula Creek	$ 3,065,032
7	Ferris Lane to Petersen Property	$ 6,156,801
8	Shreerama Property to Largo Lane	$ 3,109,554
9	Sycamore Road to Cliff Avenue	$ 2,184,954
10	Cliff Avenue to 1st Street (Fillmore)	$ 921,719
11	1st Street to Highway 126 (East Fillmore)	$ 1,810,905
12	Highway 126 (East Fillmore) to Elkins Ranch	$ 4,789,014
13	Elkins Ranch to Limoneira Property	$ 5,557,346
14	Sunny Woods Property to Real Wash Road	$ 2,080,005
15	Real Wash Road to Center Street	$ 1,302,237
16	Piru to Camulos Ranch	$ 1,471,218
17	Camulos Ranch	$ 1,767,711
*Smart Trail Operations Center		$ 250,000
	TOTAL COST (segments 1-17)	$ 48,991,462

TOTAL COST BY JURISDICTION

Jurisdiction	Cost
City of Ventura (includes segments 1 & 2)	$ 6,808,575
City of Santa Paula (includes segments 5 & 6)	$ 4,833,968
City of Fillmore (includes segment 11, 1/2 of seg 10 & 1/4 of seg 12)	$ 3,469,018
City of Piru (includes segments 14 & 15)	$ 3,382,242
County of Ventura (includes segments 3, 4, 7, 8, 9, 13, 16, 17, 1/2 of seg 10 & 3/4 of seg 12)	$ 30,247,659
*Smart Trail Operations Center	$ 250,000
TOTAL COST (all jurisdictions)	$ 48,991,462

TOTAL COST BY IMPROVEMENT

Improvement Description	Cost
Trail Construction	$ 11,619,920
Crossing Construction	$ 16,017,000
Trail Amenities	$ 1,110,000
Smart Trail Features	$ 6,572,980
Planning and Design	$ 8,123,577
Contingency	$ 5,297,985
*Smart Trail Operations Center	$ 250,000
TOTAL COST (all improvements)	$ 48,991,462

* The Smart Trail Operations Center cost was not included as part of the individual segment costs and is identified as a separate line item. It would be an operational center located somewhere within the corridor.

Source: Kimley-Horn and Associates, Inc.

14.0 Trail Management, Operations and Maintenance

Memorandum of Understanding

The Ventura County Transportation Commission (VCTC) acquired the title to the railroad right-of-way corridor from the Southern Pacific Railroad. VCTC's primary obligation and responsibilities as the property owner is to maintain a right-of-way for potential future rail service and to meet the requirements of the Memorandum of Understanding (MOU) between VCTC and the local jurisdictions. The MOU specifically identifies a bicycle path as a potential future use of the right-of-way, and also addresses issues such as finances, administrative structure, maintenance, encroachment permits, leases, licenses, and easements, and other items.

The MOU will continue to serve as the underlying legal framework that helps guide the development and management of bike path/rail trail.

Operations and Maintenance

Operations and maintenance of the Santa Paula Branch Line Rail Trail is of utmost importance for the productive use of the facility, and the financial and liability resources of the local jurisdictions. As identified in the MOU, each jurisdiction will independently develop and perform their own operations and maintenance on their section of the Santa Paula Branch Line Rail Trail. VCTC will continue to act as the property owner and provide regional coordination, provide minimum design and operating standards, and assist with funding. A proposed breakdown of operations and maintenance tasks between local agencies and a new regional trail management effort is presented below in Table 1.

Operation activities on the Santa Paula Branch Line Rail Trail will consist primarily of maintenance, monitoring and security. Monitoring accidents including identifying the primary cause and rectifying any physical deficiencies must be accomplished by each jurisdiction. The local police department typically has the responsibility for collecting accident information identifying fault, while the public works department has the responsibility for identifying and improving physical or operational conditions which may have contributed to the accident. The public works department typically also has the responsibility for making the determination to warn trail users of problems, and to close the trail when conditions warrant.

Table 1
Operations and Maintenance Tasks

Item	Responsibility	Notes
Ownership	VCTC	VCTC will remain the owner of the right-of-way
Regional Oversight	SPBLAC	The Advisory Committee should continue its role in providing policy oversight of the pathway. It is recommended that a new Sub-Committee be formed that specifically provides guidance to the regional issues affecting the Trail.
Memorandum of Understanding (MOU)	VCTC/local agencies	The existing MOU will continue to guide the operation and maintenance of the right-of-way
Public Involvement - Regional	SPBLAC	It is recommended that a citizen's advisory committee be continued with the express purpose of advising the SPBLAC on the development and operation of the Trail.
Local Technical and Advisory Committees	Local	Each local agency may form or continue a technical and/or advisory committee to guide the development and operation of the local segments of the Trail.
Easements	VCTC/local	No easement will be required within the railroad corridor for the Trail. New easements required for the pathway off of the railroad right-of-way would be held by local agencies.
Liability	VCTC/Local	VCTC will continue to hold the primary responsibility for liability as property owner of the railroad corridor. Local agencies that developed their own Trail would need to conform to the overall Trail design and operation standards to be covered by VCTC.

Indemnification/Legal costs	VCTC/local	VCTC will develop indemnification agreements for all conforming activities on its right-of-way, including the payment of legal costs for adjacent property owners directly related to the Trail and trail users. Refer to Liability Agreement in Appendix.
Trail Management	VCTC/Local	VCTC staff will act as the regional administrators in terms of seeking funding and will serve as the Trail Management agency for all areas not covered by a local jurisdiction. Local agencies would act as the administrators of their own Trail segments.
Design & Development		
Funding	VCTC/Local	Local agencies will be responsible for funding their own segments of the Trail. VCTC will assist local agencies in packaging proposals, matching projects with the appropriate funding sources, and completing competitive funding applications.
Trail Design Standards	VCTC	Through this Master Plan, VCTC sets the minimum design standards for Trail width, geometries, accessibility, fencing, setbacks and clearances, crossings, signing and striping, pavement, and other items. All design standards will conform with established state and Federal standards.
Trail Planning & Design	Local	Each local agency will be responsible for their local planning and design process, which could include additional public input and designs that exceed the minimum standards.
Trail Design Approval	VCTC	VCTC reserves the right to review and approve all proposed Trail designs on their property.

Trail Construction	VCTC/Local	Local agencies will require an encroachment permit to construct Trail segments from VCTC and Caltrans (at State Highway locations). VCTC may assist in coordinating the purchase of larger amounts of materials (such as fencing) for multiple projects to reduce project costs.
Operations and Maintenance		
Security Service	VCTC/Local	Through this Master Plan, VCTC will set the recommended security procedures, methods, and minimal service levels. VCTC will also assist in providing a regional coordinated response system for the entire Trail. Local agencies will be responsible for providing adequate security patrols and other services.
Accident and Crime Monitoring	VCTC/Local	Local agencies will be responsible for compiling and monitoring accidents and crimes on the Trail and developing strategies to respond to significant patterns. VCTC to play a coordinating role with local agencies.
Maintenance Standards	VCTC/Local	Through this Master Plan, VCTC will provide recommended maintenance items and frequencies which serve as a guide to local agencies. VCTC could serve as a regional coordination body for reported maintenance problems.
Routine Maintenance	Local	Local agencies will be responsible for their own routine maintenance, including weed abatement, irrigation, repairing storm damage, pruning, fence and sign repair/ replacement, graffiti removal, trash disposal, and sweeping. VCTC will maintain responsibility for Trail maintenance outside of local control.

Annual Maintenance	Local/VCTC	Local agencies will be responsible for annual, long term, and incident maintenance as well, including drainage repair and pavement repair. VCTC could act as a regional coordination and purchasing agent for items such as Trail a sweeper.
Railroad/Utility Maintenance Impact	VCTC	VCTC will be responsible for maintenance agreements and repairs associated with railroad operations and existing or future utilities within the corridor.

Administration

Administration of the Santa Paula Branch Line will involve both the VCTC and local agencies. VCTC will remain the property owner. The Santa Paula Branch Line Advisory Committee (SPBLAC) will continue to provide regional policy oversight for the corridor. A Sub-Committee of the SPBLAC will be formed that is dedicated to providing policy guidance on the pathway development and management. The SPBLAC and the new sub-committee will include agricultural property owner representation and provide a forum for public input throughout the Trail development process, augmenting public input in the local planning and design process.

The Trail will not require a new easement within the VCTC corridor, because the existing MOU already provides for joint control and development of the right-of-way. Easements and/or encroachment permits will be required where the pathway is located out of the VCTC corridor, such as at State highway crossings or perhaps county roadways.

Funding and Implementation

VCTC staff will provide coordination services on the Trail development including seeking funding and assisting in the development and management. VCTC staff will assist local agencies in developing fundable projects, matching projects with funding sources, and helping to complete competitive funding applications. In some cases, VCTC may act as the project sponsor or co-sponsor.

Through this Master Plan, VCTC has established minimum design and management standards to ensure consistency along the entire route. VCTC staff will review and approve of all Trail designs submitted by local agencies.

Finally, VCTC will incur additional operating expenses to provide the stated coordination and

liability services. VCTC will establish a distinct financial accounting for Trail-related expenses, and identify future financial requirements to sustain these efforts.

Security and Public Safety (In Progress)

While studies of trails in the United States have shown that trails typically have less security and safety issues than surrounding communities in general, it is the intent to provide adequate security and public safety on the Trail. Most multi-use trails in the United States do not have a dedicated police patrol of the facility. It is more common for local police to patrol sections of paved trails not visible from adjacent streets on an intermittent basis. As a rule of thumb, a multi-use trail such as the Santa Paula Branch Line Rail Trail will require 1 man-hour per day for every 5 miles of bike path. This translates into roughly 6 man-hours/day for the entire Santa Paula Branch Line Rail Trail based on the current alignment. This figure would also vary by time of week and year. Off-peak weekdays may require only 2 man-hours/day, while peak weekends may require as much as 10 man-hours/day.

While each local police department is responsible for selecting the most appropriate means of patrolling their segment (if at all), it may be beneficial to patrol the Santa Paula Branch Line Rail Trail using bicycle-mounted officers. Trail patrols may be supplemented by volunteers from local bicycling organizations, who could provide information to trail users and report problems to the authorities.

A summary of key security and safety recommendations is presented below.

- Adhere to the established design, operation, and maintenance standards presented in this document. Supplement these standards with the sound judgement of professional engineers and law enforcement
- VCTC and local jurisdictions responsible for the operation and maintenance of the Trail should commit to a minimum of 1 dedicated man-hour per day of security for every 5 miles, in addition to existing patrols on adjacent streets.
- No Trespassing and other Trail restrictions, including speed limit and motor vehicle restrictions, should be clearly marked. No Trespassing signs should be posted every 200 feet in agricultural areas, with maximum fines of up to $1,000 cited.
- Clearly post the hours of Trail operation. In developed areas, it is appropriate to limit hours of operation from 6:00 AM to 10:00 PM. In rural areas, hours of operation may from dawn to dusk, or 6:00 AM to 7:00 PM, whichever is later. Penalties for violating these hours should be clearly identified. Random patrols should provide security on the Trail after it is closed.
- Make all segments of the Santa Paula Branch Line Rail Trail accessible to within 500 feet of emergency vehicles

- Maintain adequate recording and response mechanisms for reported safety and maintenance problems. Thoroughly research the causes of each reported accident on the Santa Paula Branch Line Rail Trail . Respond to accident investigations by appropriate design or operation improvements.
- Maintain adequate recording and response mechanisms for reported safety and maintenance problems. Thoroughly research the causes of each reported accident on the Santa Paula Branch Line Rail Trail. Respond to accident investigations by appropriate design or operation improvements.
- Locate mile posts every mile or one half mile; identify markers on maps
- Illuminate all grade crossings and under crossings using photo-sensitive triggers
- Locate all vegetation at least 10 feet from the Santa Paula Branch Line Rail Trail where possible to maintain clear sight distance.
- Design bridges and under crossings so that visibility is maximized; under crossings should be visible for entire length; use graffiti resistant materials.
- Provide bicycle racks and lockers at key destinations that allow for both frame and wheels to be locked.
- Provide fire and police departments with map of system, along with access points and keys/combinations to gates/bollards.
- Enforce speed limits and other rules of the road.
- Establish a liaison with the railroad operations department to respond to safety concerns.

In addition, the following Intelligent Transportation Technologies are proposed for the Trail:

- Provide emergency cell phones in isolated areas approximately every 2,500, providing a direct linkage from the Trail to local law enforcement agencies.
- Install electronic information kiosks and warning signs at key trail entrance locations that allow for updated Trail information on spraying, maintenance, and other conditions.
- Install cross arms on the Trail where there are private farm crossings linked to the ITT system, allowing the Trail to be temporarily closed when farm equipment is crossing.
- Install closed-circuit surveillance cameras at key locations to be monitored by local law enforcement agencies.

It is recommended that these applications be installed on a demonstration basis and studied for atleast two years to determine their cost and effectiveness.

Maintenance Needs

Maintenance of the Santa Paula Branch Line Rail Trail will be performed by the local agency to their established standards. The following list represents a manu of maintenance items typically associated with trails and should be used as a resource by local agencies.

Maintenance of the Santa Paula Branch Line Rail Trail will include the following regular activities:

Item	Frequency
Sign replacement/repair	1-3 years
Pavement marking replacement	1-3 years
Tree, Shrub, & grass trimming/fertilization	5 months- 1 year
Pavement sealing/potholes	5-15 years
Clean drainage system	1 year
Pavement sweeping	Monthly - annually as needed
Shoulder and grass mowing	as needed
Trash disposal	as needed
Lighting replacement/repair	1 year
Graffiti removal	Weekly - monthly as needed
Maintain furniture	1 year
Fountain/restroom cleaning/repair	Weekly - monthly as needed
Pruning	1-4 years
Bridge/tunnel inspection	1 year
Remove fallen trees	As needed
Weed control	Monthly - as needed
Maintain emergency telephones, CCTV	1 year
Maintain irrigation lines/replace sprinklers	1 year
Irrigate/water plants	Weekly - monthly as needed

Many of these maintenance items are dependent on the type and amount of landscaping and supporting infrastructure that is developed along the trail. It is recommended that a consistent maintenance procedure be developed for each jurisdiction along the Santa Paula Branch Line Rail Trail to ensure, at a minimum, that the facility is safe for trail users. Each jurisdiction should have a mechanism to identify, record, and respond to maintenance problems, and to keep written records of such actions.

Special maintenance equipment such as a sweeper may be purchased jointly by all local jurisdictions, thereby reducing costs. Typical maintenance vehicles for the trail will be light pick up trucks and occasionally heavy dump trucks and tractors. Care should be taken when operating

heavier equipment on the Santa Paula Branch Line Rail Trail to warn trail users and to avoid breaking the edge of the trail surface.

If the Santa Paula Branch Line Rail Trail will serve as a maintenance access road for the railroad, the trail width and pavement section should reflect the anticipated weight and frequency of vehicles. Agreements with the railroad on access to the trail and methods of warning trail users when track repair is in progress should be developed as part of the easement process.

Maintenance Costs

The total estimated annual maintenance for the Santa Paula Branch Line Rail Trail, excluding any of the innovative technologies, is approximately $272,000, based on the current alignment. This is based on an industry standard of $8,500 per mile of bike path annually. There are likely to be economies of scale when the Trail is 100% completed, based on the length of the facility and the likelihood of shared maintenance purchases between agencies.

Monitoring

Specific responsibilities should be assigned within each city to individuals responsible for monitoring the implementation of the Santa Paula Branch Line Rail Trail over time. This individual or Trail Coordinator would also be responsible that appropriate design and construction standards are used. The Trail Coordinator could also be the clearinghouse for all reported maintenance and safety problems, collecting information from and dispersing information to the appropriate departments. The Trail Coordinator would work with local public advocacy and advisory bodies in the design and operation of the trail. The Coordinator would also help identify and prepare funding applications to implement and maintain the trail over time.

15.0 Appendices

Data Collection

- Information Interview Table Summary
- Letter Received from Mr. Bob Pinkerton - Agricultural Interface Issue Identification

Trail Advisory Committee

- Orientation Package and Committee Roster
- Meeting #1 - September 25, 1997
  - Issue and Solution Identification Materials
- Meeting #2 - December, 4, 1997
  - Opportunity and Constraint Mapping
  - Design and Alignment Planning Criteria
- Meeting #3 - February 19, 1998
  - Preliminary Trail Alignment Map Review
  - Preliminary Trail Design Component Discussion

Agricultural Subcommittee

- Meeting #1 - November 6, 1997
  - Liability and Issue Identification
- Meeting #2 - January 23, 1998
- Meeting #3 - April 24, 1998
  - Agricultural Imact Mitigation Proposal
  - Letters of Response to Mitigation Proposal

Additional Outreach Materials

- Adjacent Agricultural Land Owner Contact Letters

- Newsletter #1 - November 1997
- Newsletter #2 - Spring 1998

Public Workshop Series #1

- Public Notice, Agenda, Handouts
- Santa Paula - July 22, 1998
  - Sign in Sheet
  - Written Comments Received
  - Summary of Verbal Comments
- Fillmore - July 29, 1998
  - Sign in Sheet
  - Written Comments Received
  - Summary of Verbal Comments
- Saticoy, July 30, 1998
  - Sign in Sheet
  - Written Comments Received
  - Summary of Verbal Comments
- Piru Neighborhood Council - September 16, 1998

Miscellaneous Correspondence Received (outside of workshops)

- Earl McPhail, July 9, 1997
- Robert Pinkerton, July 22, 1998 (and VCTC response)
- Dyer Sheehan Group, Inc, July 27, 1998
- Ginger Gherardi, July 28,1998
- Hansen Trust Advisory Board, August 27, 1998

Agricultural Commissioner's Office Advisory Questionnaire

- Questionnaire and Response

Summary of Existing General Plans and Other Adopted Plans

Cost Analysis Segment Sheets