SAN RAMON VALLEY
IRON HORSE TRAIL

Bicycle Pedestrian Corridor Concept Plan

June 19, 2009

prepared for:

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CONTRA COSTA COUNTY CALIFORNIA

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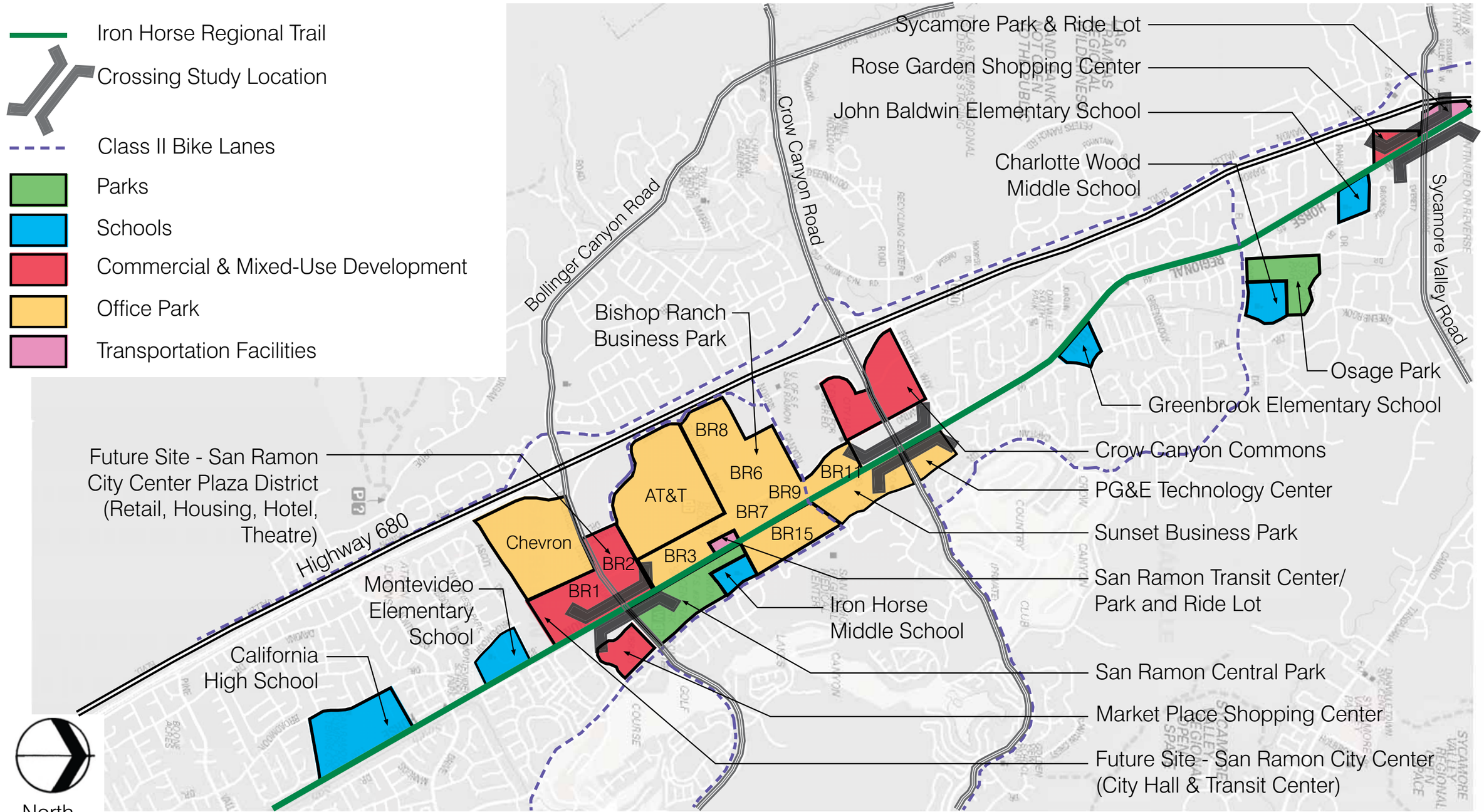
TABLE OF CONTENTS

TABLE OF CONTENTS

CONTEXT MAP


Iron Horse Regional Trail
Crossing Study Location
Class II Bike Lanes
Parks
Schools
Commercial & Mixed-Use Development
Office Park
Transportation Facilities
Sycamore Park & Ride Lot
Rose Garden Shopping Center
John Baldwin Elementary School
Charlotte Wood Middle School
Bollinger Canyon Road
Crow Canyon Road
Sycamore Valley Road
Bishop Ranch Business Park
Osage Park
Greenbrook Elementary School
Crow Canyon Commons
PG&E Technology Center
Sunset Business Park
San Ramon Transit Center/ Park and Ride Lot
Iron Horse Middle School
San Ramon Central Park
Market Place Shopping Center
Future Site - San Ramon City Center (City Hall & Transit Center)
Future Site - San Ramon City Center Plaza District (Retail, Housing, Hotel, Theatre)
Highway 680
Montevideo Elementary School
California High School
BR8
BR6
BR11
BR9
BR7
BR15
BR3
BR2
BR1
AT&T
Chevron
North

EXECUTIVE SUMMARY

TRAIL AT SYCAMORE VALLEY ROAD FIGURE 1

CROSSING AT CROW CANYON ROAD FIGURE 2

TRAIL AT BOLLINGER CANYON ROAD FIGURE 3

PURPOSE OF STUDY

The objective of the San Ramon Valley Iron Horse Trail Bicycle Pedestrian Corridor Concept Plan is to study the feasibility of integrating a series of proposed bicycle/pedestrian overcrossings along the Iron Horse Trail with adjacent transit and pedestrian-oriented land use plans. The proposed overcrossings are located at Sycamore Valley Road (Danville), Crow Canyon Road (San Ramon) and Bollinger Canyon Road (San Ramon).

The San Ramon Valley Iron Horse Trail Bicycle Pedestrian Corridor Concept Plan will evaluate the feasibility of constructing overcrossings to improve access and safety for bicyclists and pedestrians along the Iron Horse Trail and to create a pedestrian-friendly environment at the three major arterial crossings. The Plan has involved the development and evaluation of alternative concepts, feasibility, cost, and schedule for the implementation of a preferred concept.

The San Ramon Valley is located in southern Contra Costa County and is situated between the communities of Walnut Creek, Dublin, and the unincorporated areas of Alameda and Contra Costa counties. The San Ramon Valley area is comprised of the city of San Ramon, the town of Danville, and the unincorporated communities of Alamo, Blackhawk and Diablo.

The project area of study extends from Sycamore Valley Road, south across Crow Canyon Road, and terminates at Bollinger Canyon Road. The general character of the trail in the study area is flat and open. The trail corridor width varies from 100' at Sycamore, to 65' on the northern side of Crow Canyon and 50' on the southern side, to 100' at Bollinger Canyon Road.

As the designated Congestion Management Agency (CMA) for Contra Costa County, the Contra Costa Transportation Authority (CCTA) approved the allocation of Transportation Planning and Land Use (T-PLUS) funds for the Iron Horse Trail Corridor Concept Plan; and entered into an agreement with the City of San Ramon to oversee the expenditure of funds and oversight for the study.

Callander Associates was selected to lead the Consultant effort of the feasibility study. The project included the development of a corridor concept plan for bicyclists and pedestrians along the San Ramon Valley portion of the Iron Horse Trail. The consultant team has worked closely with the City of San Ramon, Town of Danville, Contra Costa County, Contra Costa Transportation Authority and East Bay Regional Park District staff's for the duration of the Study.

JOHN BALDWIN ELEMENTARY SCHOOL NEAR SYCAMORE ROAD FIGURE 4

ORGANIZATION OF REPORT

This report is organized into three main parts. The first part includes a description of the project context, organization and goals of the report. Sections of the report included in Part 1 are the executive summary, overview and background, and plan overview. The second part includes a discussion of the planning process, basic overcrossing parameters, anticipated benefits, guiding principles, and case studies. Sections of the report included in Part 2 are planning process, and project considerations. The third part touches on the various overcrossing concepts, implementation, costs and anticipated benefits to be realized from construction of the overcrossings. Sections of the report included in Part 3 are major crossing concepts, and implementation.

Sycamore Valley Road Crossing

The northernmost area of the trail at Sycamore Valley Road is primarily surrounded by residences, with downtown Danville located approximately one half mile north of this crossing. The Rose Garden Shopping Center, Sycamore Valley Road Park and Ride Lot, John Baldwin Elementary and Charlotte Wood Middle School are all located close to the trail near this location. The trail crosses Sycamore Valley Road at an angle and pedestrians are required to leave the corridor alignment to utilize a crosswalk at San Ramon Valley Boulevard to the west of the corridor before proceeding.

RUNNER AT SYCAMORE VALLEY ROAD - CUTTING ACROSS FIGURE 5

This crossing is the closest of the three to Interstate 680; however vehicle volumes are lower than at the other locations. It is anticipated that an overcrossing at this location would serve local residents, commuters and shoppers, and increase safety and convenience for trail users.

Crow Canyon Road Crossing

The Crow Canyon Road Crossing is located in a commercial area with many offices and businesses. The PG&E Technology Center occupies the northeastern corner of this intersection. Crow Canyon Commons and Bishop Ranch Business Park are nearby. This location is approximately mid-way between the residential areas to the north and the office parks to the south.

Of the three crossing locations, the Crow Canyon crossing is the only crossing that is not coincident with a street intersection. Pedestrians and bicyclists cross Crow Canyon mid-block, by pressing a pedestrian activated crosswalk button and waiting their turn. Despite traffic engineering practices, lengthy waits for both pedestrians and motorists are unavoidable.

WALKERS ON THE TRAIL NEAR BOLLINGER CANYON ROAD FIGURE 6

Crow Canyon has the most vehicle volume at the morning peak hours, and this use is projected to increase. Many trail users turn around at this crossing to avoid waiting for the signal. An overcrossing at this location would improve pedestrian accessibility, safety and traffic operations.

Bollinger Canyon Road Crossing

Approaching the Bollinger Canyon Road Crossing from the north, the character of the area surrounding the trail shifts from midsize office buildings to corporate campuses as exemplified by the Bishop Ranch Business Park, home of AT&T. The Bollinger Canyon Crossing has the highest trail use of the three crossings. Surrounding uses include the Market Place Shopping Center southeast of San Ramon Central Park, Iron Horse Middle School and the San Ramon City Center (at build out).

At this crossing, trail users have the most lanes of traffic to cross, and must wait at the signal. Significant increases in vehicle traffic and trail use are expected at this location, attributable primarily to the development of the City Center. An overcrossing at this location would improve safety and convenience for trail users as well as improve traffic flow on Bollinger Canyon Road.

BICYCLISTS AT BOLLINGER - CROSSING AGAINST THE SIGNAL FIGURE 7

The City Center has been designated as a Priority Development Area (PDA) by the Association of Bay Area Governments (ABAG). ABAG's community goals for PDA's include: "Improve mobility through coordination of land use, transportation, and planning decisions," and "Foster a regional growth pattern that creates complete communities with ready, close, and safe access to employment, shopping, amenities and services and where transit is in place, well coordinated and available." An overcrossing at Bollinger Canyon Road is consistent with ABAG's goals for PDA's.

BICYCLIST AND JOGGER NEAR SYCAMORE VALLEY ROAD FIGURE 8

LINKS TO THE COMMUNITY

The trail throughout the study area provides critical access to adjacent land uses, including the residential areas near Sycamore Valley Road, businesses along Crow Canyon Road, San Ramon Central Park, Marketplace Shopping Center, and offices adjacent to Bollinger Canyon Road. These vital connections are a factor in evaluating the merits of overcrossings at Sycamore, Crow Canyon and Bollinger Canyon roads.

In some instances it may be desirable to maintain at grade crossings in addition to the grade separations. Some destinations are closer to the street frontage and are more easily accessible if an at grade crossing is available.

CURRENT USE

As a component of this study, an evaluation of current and anticipated traffic levels was completed. The study includes an itemized summary of the current at grade crossings. Some of the issues identified include:

1. Long signal lights.
2. Jay-walking.
3. Trail users that turn around.

Collision data reveals that there have been four vehicle/bicycle accidents reported between 2002 and 2007, with three of those occurring at the Crow Canyon Road intersection.

Future use of the trail will be affected by several factors such as employment growth, residential growth, maintenance of the corridor and improvements. The largest increase in trail use is anticipated to occur at Bollinger Canyon Road, with an increase in use levels of approximately 250%. Growth at Crow Canyon Road is expected to be the next highest, with an increase in use levels of approximately 240% during peak hours. Sycamore Valley Road is projected to have an increase in use levels of approximately 150% during peak hours.

BICYCLIST ON THE IRON HORSE TRAIL FIGURE 9

OVERVIEW AND BACKGROUND OF TRAIL/CORRIDOR

The Iron Horse Trail Corridor contains a 10 foot wide paved asphalt path occupying a Right of Way (ROW) previously dedicated to a heavy gauge rail line. The corridor is currently managed by the Contra Costa County Public Works Department, the East Bay Regional Park District and the Contra Costa County Redevelopment Agency. The paved multi-use trail extends 18.5 miles from the Alameda County line, north towards Concord. Previously a Southern Pacific Railroad route on the San Ramon Valley Branch Line, the railroad began operation in the 1890's, but operation decreased as transportation technology changed throughout the twentieth century.

In 1978, Southern Pacific Railroad received federal permission to abandon the line, and the tracks were removed shortly after. Between 1983 and 1989 Contra Costa County obtained state transportation grants to buy the right-of-way from Southern Pacific. The community group, Right of Way Trail Advocates, had an important role in keeping the space as a right-of-way trail.

In response to public wishes, the corridor has been developed into a recreational and commuter trail for walking, jogging and bicycling and also includes space set aside for a future light rail system. The corridor right-of-way varies in width from 30 to 100 feet.

IRON HORSE TRAIL USERS FIGURE 10

Since the first portions of the trail opened for public use, the Iron Horse Trail has proved popular. Numerous improvements have been implemented over the years including paved trails, pedestrian crossings and bridges. The Ygnacio Valley Road overcrossing in Walnut Creek and development of the Treat Boulevard overcrossing enhance the utility of the public trail. Additional improvements that have enhanced the utility include photo sensors at minor residential intersections in Danville that allow bicyclists to proceed (with caution) at crossings without manual activation of a pedestrian signal.

By virtue of the fact that the corridor was previously a rail route, numerous benefits accrue to the pedestrians and bicyclists using it including: a flat alignment easily negotiated by all, and convenient unimpeded linkages to the urban centers along the corridor. In addition to linking the historic downtowns, the trail also provides connections to more recent improvements including parks, schools, businesses, and intermodal transportation stations.

TRAIL IMAGES

SYCAMORE VALLEY ROAD CROSSING FIGURE 11

SYCAMORE VALLEY ROAD CROSSING FIGURE 12

CROW CANYON ROAD CROSSING FIGURE 13

CROW CANYON ROAD CROSSING FIGURE 14

BOLLINGER CANYON ROAD CROSSING FIGURE 15

BOLLINGER CANYON ROAD CROSSING FIGURE 16

TRAIL USERS AT SYCAMORE VALLEY ROAD CROSSING

FIGURE 17

TRAIL USERS AT BOLLINGER CANYON ROAD NEXT TO FUTURE CITY CENTER SITE

FIGURE 18

TRAIL USERS AT SYCAMORE VALLEY ROAD

FIGURE 19

TRAIL USERS AT BOLLINGER CANYON ROAD NEXT TO THE CITY CENTER SITE

FIGURE 20

PROJECT BENEFITS

"Overcrossings must be designed with safety and high visibility as a priority with the health, safety and welfare of citizens of the communities foremost."

Benefits of Pedestrian Overcrossings:

- Improve pedestrian and bicyclist safety
- Improve traffic flow on trails and streets
- Facilitate alternative means of transportation
- Increase recreational opportunities
- Facilitate healthier lifestyles
- Cultivate appreciation of the natural world

BENEFITS OF BICYCLE/PEDESTRIAN OVERCROSSINGS

Overcrossings provide a multitude of benefits. In very tangible ways overcrossings facilitate transportation by enabling bicyclists and pedestrians to more easily negotiate street crossings. In this way they promote and cultivate alternative means of transportation, an increasingly important consideration as we move to a more broad based transportation system that includes alternative means of transportation.

In a no less tangible manner, pedestrian overcrossings can serve to link communities by breaking down the barriers that multiple lane expressways unavoidably create. By erasing these boundaries, overcrossings create larger, stronger communities.

Overcrossings are important for communities because they provide accessibility for all, non-driver and driver, fully able bodied and persons with disabilities alike. Lastly, crossings can be used to foster identity to a place, and can develop a stronger sense of community when designed in its surrounding context.

Overcrossings must be designed with safety and high visibility as a priority with the health, safety and welfare of citizens of the communities foremost. Pedestrian bridges should be comfortable, functional, appropriate and aesthetically pleasing. Overcrossing designs must be responsive to the evident opportunities and constraints at the location.

BICYCLIST AT CROW CANYON FIGURE 21

Actions that foster improved bicycle and pedestrian circulation further the San Ramon Valley's goals of developing attractive travel alternatives and other objectives such as congestion relief and providing better facilities for non-work trips. Bicycle and pedestrian trails and overcrossings expand options for travel related to work, school, shopping, and recreation.

BICYCLE GROUP BETWEEN SYCAMORE AND CROW CANYON FIGURE 22

CHILDREN LEAVING SCHOOL FIGURE 23

PLANNING PROCESS

The San Ramon Valley Iron Horse Trail Bicycle Pedestrian Corridor Concept Plan utilized the following process, which included an existing conditions analysis, Project Development Team (PDT) meetings, stakeholder meetings, site inventory and site walks, trail use/traffic data and analysis, analyzing opportunities and constraints, assessing alternative overcrossing alignments, and providing bridge images to facilitate visualization of the overcrossings.

EXISTING CONDITIONS ANALYSIS

Review of Previous Reports

At project inception planning documents prepared previously related to this study were reviewed. These documents were crucial for understanding the surrounding areas along the trail, in order to develop through overcrossing alignments and concepts. Among the documents reviewed in preparation of this report are:

- "Revised Iron Horse Trail Corridor Concept Plan: Summary of Data Collection, Analysis and Usage Forecasts", Fehr and Peers. 02/25/08
- "San Ramon City Center Draft Subsequent EIR", Michael Brandman Associates. 08/13/07
- "Record of Survey of Former Southern Pacific Railroad Right of Way", Contra Costa County Public Works Department. 12/03
- "Rose Garden Construction Documents", BCV Architects. 4/22/04
- "The Town of Danville – 2010 - General Plan" 08/03/99.
- "General Plan – The City of San Ramon", Dyett and Bhatia. 07/01
- "Bollinger Canyon Road Widening Phase 4 – Iron Horse Trail", Ruggeri-Jensen-Azar. 03/10/08

PROJECT TEAM DEVELOPMENT MEETINGS

Project Team Development meetings were held over a six month period. During this time team members from the City of San Ramon, Town of Danville, Contra Costa County Public Works, East Bay Regional Park District, Contra Costa Transportation Authority, and the consultant team worked together to assess the feasibility of overcrossings and opportunities and constraints involved. See appendix for the PDT meeting summaries.

- PDT #1 (Kick-Off Meeting) – 8/27/07
- PDT #2 – 11/6/2007
- PDT #3 – 1/16/08
- PDT #4 – 2/28/08
- PDT #5 – 3/19/08
- PDT #6 – 4/14/08

STAKEHOLDER MEETINGS

A community meeting was held at the San Ramon Community Center on October 16, 2007. It was attended by many elected and appointed officials of the City of San Ramon, Town of Danville and Contra Costa County. During this meeting the project objectives were reiterated and means of facilitating the project were discussed. Additional community meetings are anticipated with the City of San Ramon and the Town of Danville. These will be an important source of feedback for the final development of the corridor report and bridge concepts.

- Community Input Meeting – 10/16/07

BICYCLISTS AT CROW CANYON ROAD FIGURE 24

BICYCLISTS AT CROW CANYON ROAD FIGURE 25

SITE INVENTORY AND SITE WALKS

Conducting thorough site analyses of the various intersections was done to gain knowledge about the crossings' opportunities and constraints. Site visits took place throughout the design process to verify assumptions and further investigate site conditions. Site visits were documented through field notes, site photos, and meeting summaries.

- 5/25/07
  Attendees: Callander Associates.
  Actions: Initial Observations, General Characteristics of Area

- 9/26/07
  Attendees: Callander Associates, Stakeholders.
  Actions: Discussion at each crossing. Bike ride along the trail from Sycamore Valley Road to Bollinger Canyon Road. Detailed Site Reconnaissance. Site Inventory - Utilities and Easements mapped. Detailed photo log created.

- 2/29/08
  Attendees: Callander Associates.
  Actions: Detailed measurements of utilities at crossings. Notes and Observations. Bridge location analysis. Reference photos.

- 4/19/08
  Attendees: Callander Associates.
  Actions: Reference photos. Notes and observations.

COMMUNITY SUPPORT

Community meetings are a component of the project and are considered critical to the development of a publicly responsive study. All meetings were documented and copies of the meeting summaries can be found in the appendix.

Community Meeting #1 included a scoping study, held on 10/16/07. The purpose of the meeting was to discuss the corridor concept report and solicit input from the city, town and county representatives. No concepts were developed prior to the meeting. Goals of the attendees included:

- an expedited project schedule
- discussion of the report development process
- input and clarification of project development
- consideration of establishing prioritization for the crossings

More community meetings will be held at later dates, and these will be an important component in the design of the pedestrian overcrossings.

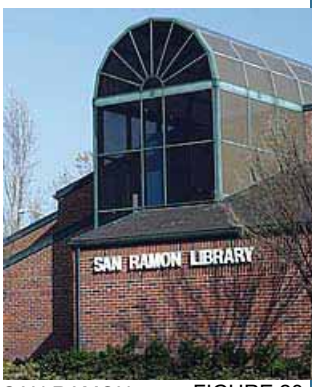
PROJECT CONSIDERATIONS

CORRIDOR CONTEXT

The Iron Horse Trail between Sycamore Valley Road and Bollinger Canyon Road is surrounded by many different land uses, thereby creating trail use generators. These include residences, schools, parks, employers, retail and others amenities located adjacent to the trail. These places provide the context of the Iron Horse Trail.

FESTIVAL AT SAN RAMON CENTRAL PARK FIGURE 26

BISHOP RANCH BUSINESS PARK FIGURE 27



SAN RAMON LIBRARY FIGURE 28

Trail Use Generators

Residential

- Adjacent Residents in San Ramon and Danville

Schools

- John Baldwin Elementary School and Park (Danville)
- Charlotte Wood Middle School (Danville)
- Greenbrook Elementary School and Park (Danville)
- Iron Horse Middle School (San Ramon)
- Montevideo Elementary School and Park (San Ramon)
- California High School and Aquatic Center (San Ramon)

Parks

- Osage Station Park (Danville)
- Central Park (San Ramon)
- Danville South Park (Danville)

Employers

- Crow Canyon Commons Office Park and Sunset Office Park (San Ramon)
- Bishop Ranch Business (San Ramon)
- Chevron Corporate Headquarters (San Ramon)
- AT&T (San Ramon)

Retail

- Downtown Danville (Danville)
- Town and Country Shopping Center (Danville)
- Shops at Bishop Ranch (San Ramon)
- Marketplace Shopping Center (San Ramon)
- Rose Garden Shopping Center (Danville)
- Danville Livery and Mercantile (Danville)
- Crow Canyon Shopping Center (San Ramon)

Other

- Sycamore Valley Road Park and Ride Lot (Danville)
- San Ramon Regional Medical Center (San Ramon)
- San Ramon Transit Center (San Ramon)
- San Ramon Community Center
- San Ramon Public Library
- San Ramon Park and Ride Lot
- San Ramon Aquatic Center

SAN RAMON CENTRAL PARK FIGURE 29

SAN RAMON CENTRAL PARK FIGURE 30

PATH CONNECTING CENTRAL PARK AND IRON HORSE TRAIL, SAN RAMON FIGURE 32

ROSE GARDEN SHOPPING CENTER - DANVILLE FIGURE 31

SYCAMORE VALLEY ROAD PARK AND RIDE LOT - DANVILLE FIGURE 33

BICYCLIST NEAR CROW CANYON ROAD FIGURE 34

BOYS ON SCOOTERS FIGURE 35

SITE SETTING

Overview of Corridor

The project study area extends from Sycamore Valley Road, south to Bollinger Canyon Road as shown in the Context Map. Locations of uses in the vicinity of the intersections are described according to quadrants; northwest, southwest, northeast and southeast. For purposes of the report the trail is assumed to represent the north-south axis and the cross streets the east-west axis.

The northwest quadrant of the Sycamore Valley Road/Iron Horse Trail intersection is occupied by a Park and Ride facility, with the Rose Garden Shopping Center occupying the southwest quadrant. South of this intersection and along the eastern edge of the trail is the John Baldwin Elementary School. The Charlotte Wood Middle School lies slightly off the trail against El Capitan Drive. Further south along the trail on the east side is the Greenbrook Elementary School, positioned against the trail. It is notable that there are three schools located between the Sycamore and Crow Canyon crossings, therefore these trails provide a significant opportunity for use by older children traveling to and from school. The addition of safe crossings at major intersections would increase the viability of the trail as a means of traveling to and from school.

Between the Crow Canyon and Bollinger Canyon crossings, there are numerous shopping areas and business offices. The Crow Canyon Commons are located on the western side of the Crow Canyon crossing, and the Bishop Ranch Business Park is situated on both sides of the trail, with the majority of the facilities lying to the west side. Iron Horse Middle School is located between the Crow Canyon and Bollinger crossings and San Ramon Central Park is located just north of the Bollinger crossing. At the Bollinger crossing, significant parcels of land have been set aside in anticipation of the City Center project.

To the south past Bollinger are Montevideo Elementary School and California High School. This portion of the trail serves many different destinations such as shopping areas, offices, homes, schools, and parks. Creating strong links would be beneficial for the entire surrounding community.

BICYCLIST AT SYCAMORE VALLEY ROAD FIGURE 36

Eliminating the Barrier Effect

It was observed that many trail users treat the existing at grade crossings as turn-around points. It is assumed that many of these people turn around to avoid crossing vehicular traffic or waiting for a walk signal. On weekday mornings up to 25 percent of trail users turned around when arriving at a crossing. Constructing an elevated overcrossing at any of the proposed locations would reduce this barrier effect.

BICYCLIST AND JOGGER AT SYCAMORE VALLEY ROAD FIGURE 37

PEDESTRIANS WAITING TO CROSS BOLLINGER CANYON ROAD FIGURE 38

PROJECT CONSIDERATIONS

BICYCLIST AT SYCAMORE VALLEY ROAD FIGURE 39

VISUAL IMPACTS

Due to the proximity of homes to the various intersections, sensitivity to visibility must be considered. This included views both to and from any proposed structure. This is a significant consideration at Sycamore Valley Road and may also be a consideration at Bollinger Canyon Road depending upon the proximity of residences in the City Center to the crossing. Environmental documentation that would be a component of further studies will address this impact and identify appropriate measures. It is anticipated that sensitivity in structure siting, design and screening can effectively address these concerns.

ACCESS/CIRCULATION

Overcrossings are an important tool for improving access and circulation because they maintain a throughway for trail users. When pedestrians and bicyclists are allowed to move to and from a destination with reduced stops, they will be more encouraged to use the trail as a mode of transportation. This greater mobility will also allow trail users to engage in more activities, including using the trail for recreational purposes, shopping and commuting. Bicycle utility is further enhanced by the relationship of the trail to transit facilities. Busses serving the transit facilities have bicycle racks, further facilitating intermodal transportation.

BICYCLISTS ON IRON HORSE TRAIL ON BIKE TO WORK DAY FIGURE 40

UTILITIES AND EASEMENTS

There are multiple underground utility easements and right of ways along the Iron Horse Trail. The use of the corridor for the installation of trunk utility lines is consistent with other transit corridors as they typically provide the most unimpeded routes. Because these major utilities are present, careful planning is necessary when locating and designing bridge overcrossings. The various easements located along the Iron Horse Trail include but are not limited to:

- Transit/Light Rail Corridor
- SFPP/Kinder Morgan Gas/Fuel Easement
- Storm Drain Easement
- EBMUD Easement (East Bay Municipal Utility District)
- DERWA Easement (Dublin San Ramon Services District – EBMUD Recycled Water Authority)

PROJECT CONSIDERATIONS

TRAIL USERS NEAR SYCAMORE VALLEY ROAD FIGURE 41

"Based on the planned development, it is estimated that there will be about 3,700 new employees and 1,000 new residents along the corridor within the project limits."

ILLUSTRATION OF FUTURE CITY CENTER (Excerpted from San Ramon City Center, Draft Subsequent EIR) FIGURE 42

TRAIL USE

Existing and Future Uses

Trail use data was gathered during October and November, 2007. The data assembled included current vehicle and user counts, and predictions of anticipated use. The detailed data summary, "Iron Horse Trail Corridor Concept Plan: Summary of Data Collection, Analysis, and Usage Forecasts" is included in the appendix.

Data revealed that the vehicle volumes during the peak hours for Crow Canyon Road and Bollinger Canyon Road, were nearly the same. Slightly fewer vehicles cross Sycamore Valley Road. It was determined that the sources of vehicle traffic originated from the adjacent land uses including: residences, schools, parks, retail stores, employers, Park and Ride facilities, medical center, community center, and library.

The future pedestrian growth would lead to increased traffic levels affected by several factors including; employment growth, residential growth, development along the corridor, and changes to the trail. New developments occurring at all locations of the trail crossing such as condominiums, offices, retailers, hotels, cinemas, and libraries are anticipated to increase traffic volumes. The improvements are designed to be integrated with their surrounding areas to facilitate use and accessibility. Based on the planned development, it is estimated that there will be about 3,700 new employees and 1,000 new residents along the corridor within the project limits. The majority of the new jobs and housing are directly associated with the San Ramon City Center project at Bollinger Canyon Road crossing.

The San Ramon City Center project will consist of approximately 2.1 million square feet of retail, hotel, residential, office and civic uses on approximately 44 acres. About 200,000 square feet of existing office space will be demolished for the new development. There will be a City Hall, Police Station, parking structures, and a Regional Transit Center. Full occupancy is anticipated to occur by 2013.

In addition to future development and the proposed overcrossings, other factors that may contribute to increased trail use include, changing values and lifestyles, increased awareness of healthy transportation, interest in recreation, increased traffic congestion and broader advocacy of existing policies and programs including Safe Routes to School initiatives.

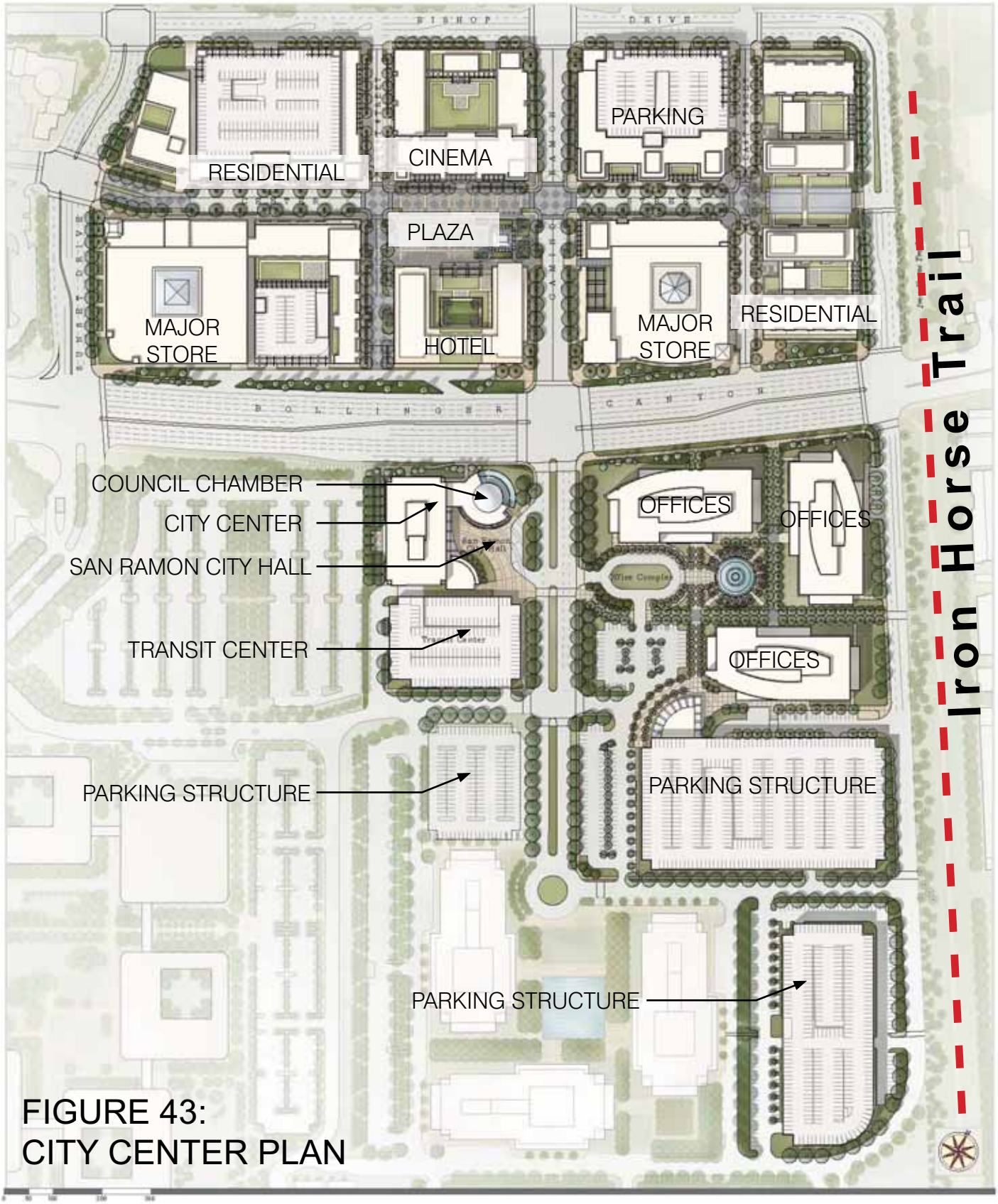


FIGURE 43:
CITY CENTER PLAN

PROJECT CONSIDERATIONS

TRAIL AT SYCAMORE - LOOKING NORTH FIGURE 44

THE ROSE GARDEN SHOPPING CENTER - DANVILLE FIGURE 45

Sycamore Valley Road Crossing

The width of the Iron Horse Trail corridor at the Sycamore Valley Road crossing is 100'. Within this corridor there is a 34' Transit/Light Rail 'set aside' for possible future transit railway. This 'set aside' occurs at all of the crossings, but is unique as compared to the defined utility easements because of its flexibility. With county approval, the light rail set aside can be shifted within the corridor, as long as a 34' wide corridor is maintained.

A 27' Sanitary Sewer Easement runs along the east side of the corridor. Additional constraints include the Kinder –Morgan Gas/Fuel Line. It is located along the east side of the corridor to the north of the intersection then crosses under the street at a diagonal to continue along the west side of the trail. There is a 10' EBMUD easement on the north eastern side of the trail. Refer to page 20 for easement locations.

Significant opportunities for a pedestrian overcrossing at the Sycamore crossing include; proximity to Interstate 680, adjacency to the Park and Ride facility, proximity to downtown Danville and a large residential population. Requirements include a longer span because the street is not perpendicular to the trail. Additional considerations include the potential visual impacts to the homes that abut the corridor.

TRAIL USERS NEAR SYCAMORE FIGURE 46

SITE ANALYSIS
SYCAMORE VALLEY ROAD

Legend

- Iron Horse Trail
- Iron Horse Trail Area
- Bridge Alignment, 14′ x 950′ (Span - 150′, Deck - 10′ Ramps - 400′ Each)

(No modification to Transit/Light Rail alignment)

- Transit/Light Rail Corridor, 34′
- SFPP Gas/Fuel Easement
- Storm Drain Easement
- EBMUD Easement

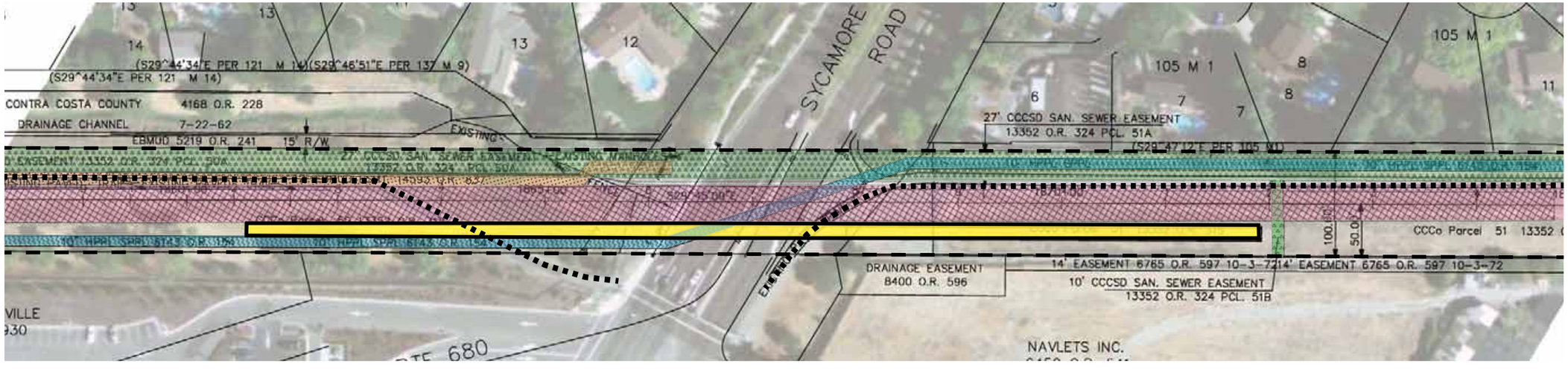
Alternative A - (Recommended)

Pro's

- No conflict with existing easements
- Further from homes

Con's

- 4′ overlap with Transit Corridor
- Trail realignment required to accommodate light rail



Alternative B

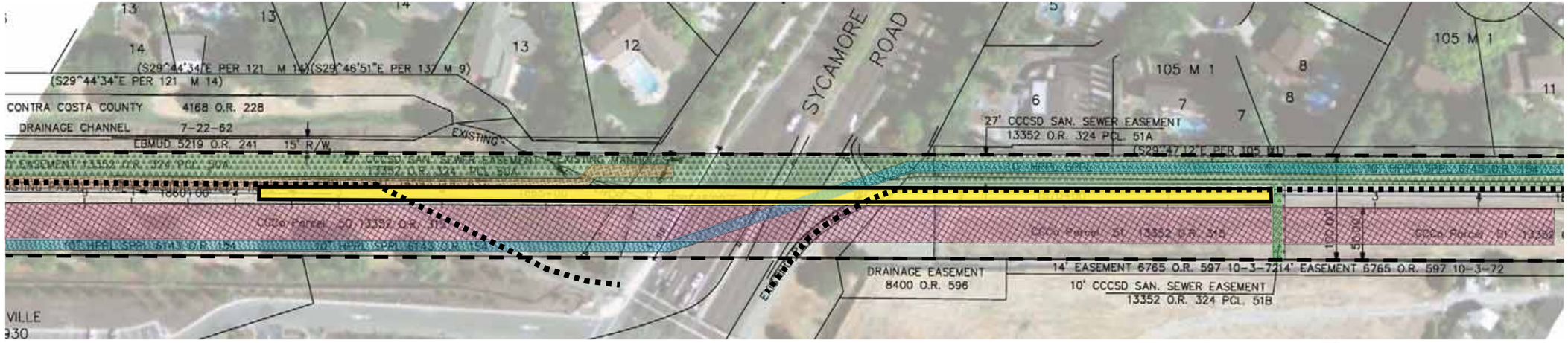
(Transit/Light Rail Corridor shifted approx 15′ south)

Pro's

- No conflict with Light Rail Corridor

Con's

- Conflicts with Storm Drain Easement
- 5′ Overlap with EBMUD Easement
- Closer to overhead electrical lines



0 25 50 100 FEET

CROW CANYON INTERSECTION FIGURE 47

Crow Canyon Road Crossing

The Iron Horse Trail corridor width is narrowest at Crow Canyon Road, with a 65' corridor width to the north of the intersection, and a 50' corridor to the south. As envisioned by Contra Costa County, the 34' light rail corridor would run along the east side of the Iron Horse Trail corridor. The Kinder-Morgan gas line is located along the eastern side of the corridor. A storm drain easement lies along the western edge and directly beneath the existing trail a second storm drain easement is located along the outside, eastern edge of the corridor.

Opportunities for a pedestrian overcrossing at Crow Canyon Road include; substantial improvements to on-street traffic flow. Because the on-grade crossing at Crow Canyon Road is not coincident with a street intersection the signal can be completely eliminated if a pedestrian overcrossing is built. Constraints include: narrow corridor widths, creating less flexibility in alignment. Developing a bridge at this location would benefit trail users as well as vehicles traveling on Crow Canyon Road.

TRAIL AND PG&E FACILITY AT CROW CANYON FIGURE 48

SITE ANALYSIS
CROW CANYON ROAD

Proposed Alignment - (Recommended)

Pro's

- No conflict with existing transit corridor
- No trail realignment

Con's

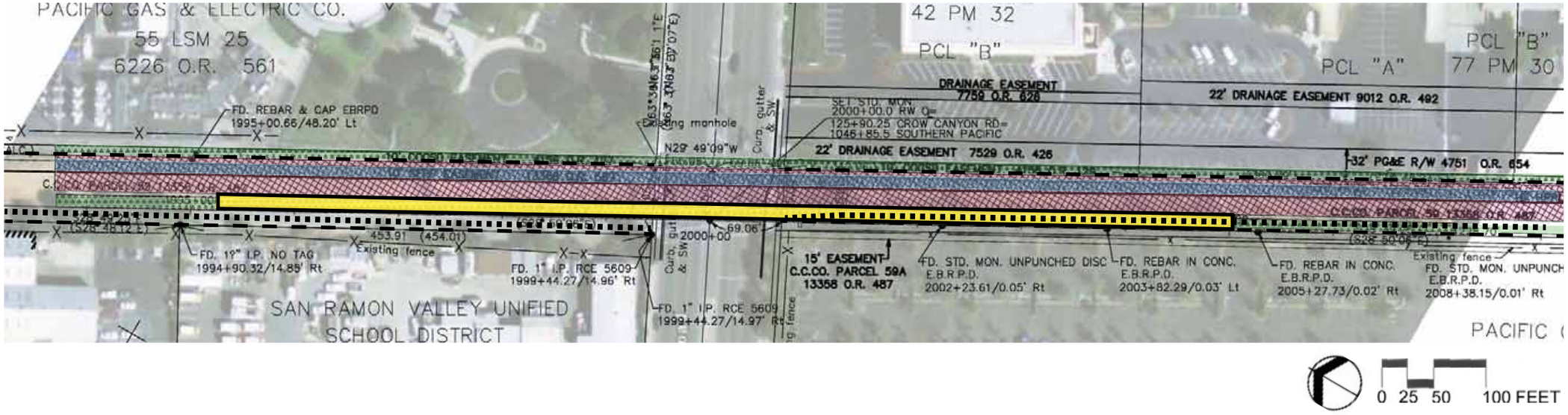
- Conflicts with Storm Drain Easement

Legend

- Iron Horse Trail
- Iron Horse Trail Area
- Bridge Alignment, 14' x 930' (Span - 130', Deck - 10' Ramps - 400' Each)

(Transit/Light Rail Corridor shifted 10' north)

- Transit/Light Rail Corridor, 34'
- SFPP Gas/Fuel Easement
- Storm Drain Easement



BOLLINGER CANYON ROAD AND IRON HORSE TRAIL FIGURE 49

Bollinger Canyon Road Crossing

The width of the Iron Horse Trail Corridor at the Bollinger Canyon Road crossing is 100'. The Kinder-Morgan line occupies the eastern edge of the corridor. Two, 12' storm drain easements, one on the western portion of the easement, and one centered in the corridor are also present. A 12' Dublin San Ramon Services District - EBMUD Recycled Water Authority (DERWA) easement is located near the center of the corridor, and the 34' light rail corridor is shown by the County to be aligned in the center of the corridor.

Opportunities at the Bollinger Canyon crossing include: facilitation of pedestrian/bicycle traffic associated with the development of the City Center. The ability to travel freely between the Central Park, City Center, Market Place Shopping Center, Iron Horse Middle School, and the Bishop Ranch Business Park will be enhanced. The housing that will be added in the area will be added coincident with the bridge and there are no existing residences adjacent to the trail.

BOLLINGER CANYON ROAD INTERSECTION FIGURE 50

SITE ANALYSIS
BOLLINGER CANYON ROAD

Legend

- Iron Horse Trail
- Iron Horse Trail Area
- Bridge Alignment, 14′ x 955′ (Span - 155′, Deck - 10′ Ramps - 400′ Each)
- Transit/Light Rail Corridor, 34′
- SFPP Gas/Fuel Easement
- Storm Drain Easement
- DERWA Easement

Alternative A

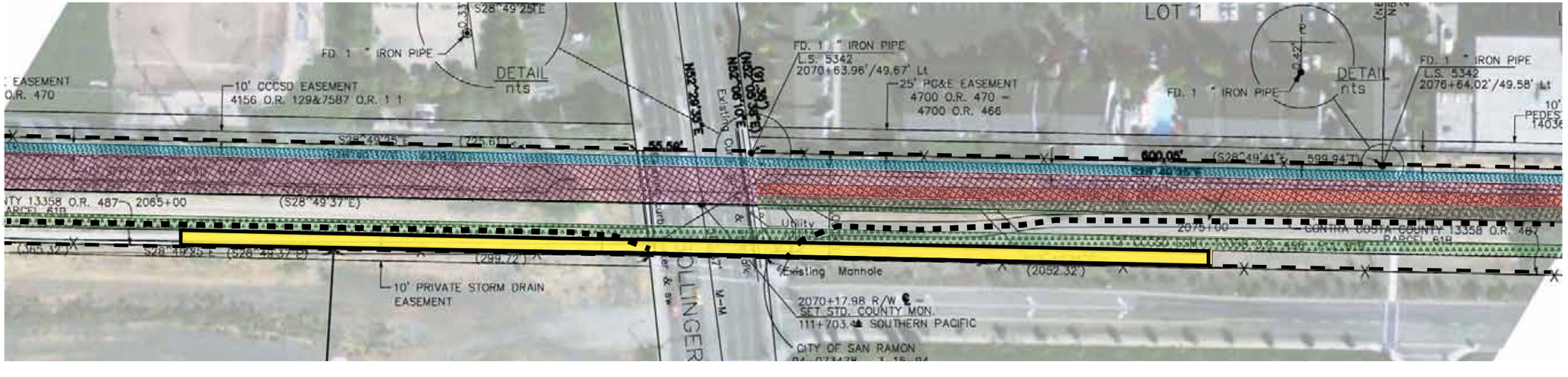
Pro's

- No conflict with existing transit corridor

Con's

- May require traffic signal replacement

(Transit/Light Rail Corridor shifted 15′ north)



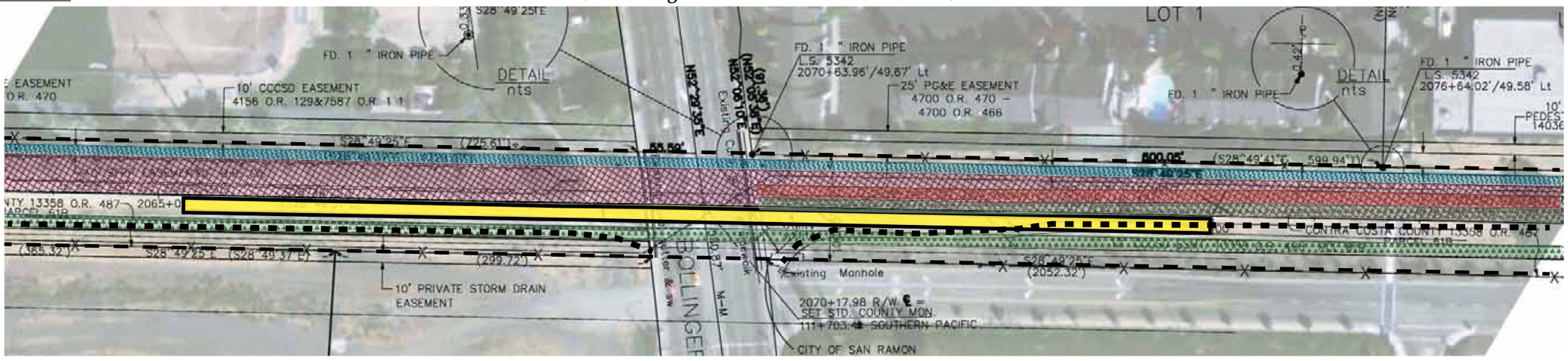
Alternative B - (Recommended)

Pro's

- No conflict with existing transit corridor

Con's

(Transit/Light Rail Corridor shifted 15′ north)



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PROJECT CONSIDERATIONS

GUIDING PRINCIPLES

Pedestrian Overcrossings at Sycamore, Crow Canyon and Bollinger Canyon Roads meet the objectives and are responsive to stated goals and policies of the City of San Ramon, the Town of Danville, Contra Costa County and the East Bay Regional Park District. By facilitating transportation, the pedestrian overcrossings are consistent with the policies and objectives listed by the Federal Government in the guidelines for T-Plus funded projects. Pedestrian overcrossings are consistent with the referenced entities in the following ways:

Contra Costa County:

- 2003 County Wide Bicycle and Pedestrian Plan - Extending and improving trails, improving safety, encouraging more users. (Chapter 4 - Bicycle Network)
- Contra Costa County General Plan - Increasing opportunities for bicycle transportation and improving facilities. (Section 5.8)

City of San Ramon:

- San Ramon General Plan - Bicycling and walking are key elements of San Ramon's circulation system. The City has an extensive network of bikeways, sidewalks and trails that enhance neighborhood accessibility and help reduce reliance on the private automobile. (Section 5.6)

Town of Danville:

- General Plan - Town of Danville - Trail importance for recreational value and as a means of providing off-street linkages to neighborhoods and areas of interest. (Chapter 4)

East Bay Regional Park District:

- East Bay Regional Park District Master Plan - Mission and Priority statements emphasize the importance of providing a diversified system of parks and trails. (Section 3 - Public Access and Cultural Service)

Transportation Planning and Land Use Solutions (T-Plus) Grant Program:

- Association of Bay Area Governments (ABAG) - Initiative developed by MTC and funded though the Authority to encourage local efforts to design and implement Transportation Oriented Development (TOD) projects. (Contra Costa County Transportation Authority - 2/11/08)

BICYCLIST AT SYCAMORE VALLEY ROAD FIGURE 51

"Access to transit can help extend the commute range of bicyclists and pedestrians, and respond to those changes in land use patterns."

Countywide Bicycle and Pedestrian Plan (CBPP)

"The focus of the CBPP is on encouraging bicycling and walking as transportation, whether for commuting, shopping, or other purposes. Changes in land use and development, and the increasing distance between destinations that have resulted from those changes, have made walking and bicycling less practical for a growing number of people. Bicycle trips are generally shorter than automobile trips, typically less than two miles, while the average walking distance is about a half mile. This statistic suggests that focusing first on facilities that serve these shorter trips might have the greatest "payoffs" in increasing walking and bicycling. And access to transit can help extend the commute range of bicyclists and pedestrians, and respond to those changes in land use patterns. (Transit systems, however, also face an increasingly dispersed live-work pattern that is difficult to serve.)"

"On December 17, 2003, the Contra Costa Transportation Authority (Authority) adopted the CBPP. The Authority has designed the CBPP to outline bicycle and pedestrian needs for Contra Costa; refine the Authority's goals and strategies as they apply to bicycling and walking; encourage local efforts to improve the environment for bicycling and walking in the communities of Contra Costa; and spur greater interest in and support for bicycling and walking generally."

"The CBPP establishes five goals:

- Expand, improve, and maintain facilities for bicycling and walking
- Improve safety for bicyclists and pedestrians
- Encourage more people to bicycle and walk
- Support local efforts to encourage walking and bicycling
- Plan for the needs of bicyclists and pedestrians

For each goal, the CBPP outlines policies and actions to achieve these goals. The Authority will use the goals, policies, and actions, as well as the other material in the CBPP, in its efforts to support bicycling and walking in Contra Costa. Local jurisdictions are encouraged to embrace these goals, too."

Contra Costa County General Plan

"Bicycles are a viable mode of commuter transportation in the urban areas on either side of the Berkeley Hills and throughout Contra Costa County due to favorable topography and weather. Development of a comprehensive bikeway system within these areas would provide further incentive to commute by bike. A comprehensive bikeway system is defined as a system of bike paths, bike lanes, and bike routes interconnected and spaced closely enough to satisfy the travel needs of most cyclists. Many existing bikeways are of a recreational design combined with pedestrian trails and located off-street. These facilities should be supplemented by on-street commuter bikeways that provide direct access to commercial uses."

BICYCLISTS AT SYCAMORE VALLEY ROAD FIGURE 52

"Bicycles are a viable mode of commuter transportation in the urban areas on either side of the Berkeley Hills and throughout eastern Contra Costa County due to favorable topography and weather."

Bikeway Goals

- Increase the opportunities for bicycle use in Contra Costa County for transportation as well as recreational purposes
- Develop coordinated, interjurisdictional Countywide network of bikeways that connects residential areas with major employment, commercial, educational, transit and cultural centers
- Assure adequate long-term maintenance of the bikeway system
- Improve bicycle education for both bicyclists and automobile drivers and promote bicycles as a mode of transportation, particularly for commuting
- Provide secure bicycle parking facilities at appropriate locations and improved access to transit systems
- Promote bikeway planning and coordination among cities, transit agencies and public utilities

IRON HORSE TRAIL USERS FIGURE 53

San Ramon General Plan

"Bicycling and walking are key elements of San Ramon's circulation system. The City has an extensive network of bikeways, sidewalks, and trails that enhance neighborhood accessibility and help to reduce reliance on the private automobile."

Guiding Policy

"Encourage bicycling and walking as alternatives to the automobile." (5.6 G-1)

Implementing Policies

- "Establish a network of on- and off-roadway bicycle routes to encourage their use for commute, recreational, and other trips. Improve and expand bicycle routes for commuters in San Ramon. The design of bike routes shall consider the safety of cyclists." (5.6 I-1)
- "Develop bicycle routes that provide access to schools and parks." (5.6 I-2)
- "Emphasize the Iron Horse Trail as a major northsouth route for non-motorized transportation. The Iron Horse Trail is an ideal corridor for a bicycle path because it is flat and continuous through the entire San Ramon Valley, and it links residential areas with Bishop Ranch Business Park. With a proposed path and landscaping for walkers, joggers, equestrians, and bicyclists, this Southern Pacific Railroad right-of-way is one of San Ramon's primary public assets. The East Bay Regional Park District proposes a Class I bike route along the entire rail corridor from the Alameda/Santa Clara County line north to Martinez. Any proposal for uses other than non-motorized forms of travel will require mitigation and public participation." (5.6 I-3)
- "Develop a series of continuous walkways within Bishop Ranch Business Park, commercial districts, and residential neighborhoods so they connect to one another. Sidewalks should be creatively designed to invite safe and pleasant use by pedestrians and should be free of obstacles such as signs. Sidewalks should be protected or separated from traffic." (5.6 I-5)

IRON HORSE TRAIL AT BOLLINGER CANYON FIGURE 54

- "Continue to carry out requirements to make public rights-of-way accessible to physically disabled persons." (5.6 I-6)
- "Adopt a Bicycle Master Plan that considers sources of statewide funding for bicycle programming." (5.6 I-7)
- "Study the feasibility of bicycle/pedestrian overcrossings on the Iron Horse Trail at Bollinger Canyon Road and Crow Canyon Road." (5.6 I-9)
- "Ensure that roadway improvement projects do not decrease mobility or accessibility for bicyclists or pedestrians." (5.6 I-10)

PEDESTRIANS AT BOLLINGER CANYON ROAD CROSSWALK FIGURE 55

STUDENTS AT BOLLINGER CANYON ROAD INTERSECTION FIGURE 56

JOGGERS AT SYCAMORE VALLEY ROAD FIGURE 57

"Trails are important elements of Danville's park system and provide significant opportunities for recreation."

TRAIL USERS AT SYCAMORE SIGNAL FIGURE 58

Danville General Plan

Trails

"Trails are important elements of Danville's park system and provide significant opportunities for recreation. Hikers, bikers, and equestrians all share a need for trails, although their specific requirements may vary. Trails have two major functions. First, they provide recreational value associated with physical fitness and the enjoyment of the natural environment. Second, in some instances, they provide safe, off-street linkages between neighborhoods, parks, schools, and other public facilities."

"The Iron Horse Trail, running along the abandoned San Ramon Southern Pacific Railroad branch line and bisecting the Town on a north-south axis, already connects a number of recreational facilities and has become the Town's major off-street trail. The eastern part of the Town is not as well served by the trail system. This deficiency pertains to both internal trails and connections to regional open space. Planned trails in this area will be shown on the Town's Trails Master Plan."

Bicycle Facilities in Danville

"Current facilities are consistent with the adopted Countywide Bicycle Plan. The Town has included bicycle facilities within its adopted Trails Master Plan and has moved aggressively forward with new bicycle facilities within the past ten years. Provision of bicycle facilities has regularly been a requirement for the approval of new development within the Town. Bicycle traffic is considered in the design of all new traffic signals installed by the Town, and local transit busses are equipped with bicycle racks. The Town should continue these activities and continue to provide for improvements such as signalized crossings, bike lockers, and bike racks, in its capital improvement planning."

Future Needs for Bicycle Circulation in Danville

"Bikeways serve a variety of functions in Danville including transportation and recreation for people of all ages. Certain bikeway routes are recreational facilities, attracting riders from throughout the Bay Area for recreational riding. Utilization of bikeways is likely to increase as Danville improves its present bikeway system and as the community grows."

BICYCLISTS CROSSING SYCAMORE VALLEY ROAD FIGURE 59

"Utilization of bikeways is likely to increase as Danville improves its present bikeway system and as the community grows."

Goals:

- Provide for safe and efficient travel on Town of Danville streets
- Provide convenient and efficient alternative transportation modes to the automobile
- Minimize the intrusions of through traffic on residential streets
- Integrate land use and transportation planning to increase the viability of alternative transportation modes and minimize vehicle trips
- Actively participate in regional transportation planning, consistent with overall goals of Danville residents and businesses

Policies:

- Create and maintain a safe, effective system of bikeways and roadways suitable for bicycle use, including an integrated network of off-road bicycle trails and bicycle lanes along collector arterial streets.
- Assure the provision of adequate bicycle support facilities at all major bicycle usage locations
- Encourage ridesharing, car and vanpooling, park-and-ride and other alternative modes to the single-occupant automobile
- Provide a pleasant and safe environment for pedestrian movement
- Promote bicycle and pedestrian oriented mixed use development in appropriate locations, including residential, commercial, and employment activities that are easily accessible by foot, bicycle or transit
- Require design measures as appropriate to accommodate access by pedestrians, bicycles and transit within new development, and to provide connections to adjacent development

East Bay Regional Park District Master Plan

"The District provides over 1,000 miles of trails, including regional trails that connect parklands and provide access to local communities. Some trails are for hiking only or hiking and equestrian use, while others accommodate multiple uses, like hiking and biking. The District also provides special trail development, such as boardwalks. In recent years, the demand for trails close to home has increased dramatically, and trail use has been on the rise for everything from basic transportation to healthful outdoor exercise."

"The District will expand its comprehensive trail system by providing more hiking and equestrian narrow trails and more multiple-use paved and unpaved trails. A primary objective will be to provide inter-connecting trails and to link the regional parks through a District-wide system of trails."

Paved Multi-use Trails.

"The District currently provides over 130 miles of paved trails. These trails, primarily located in more developed areas, serve as a non-motorized circulation and transportation system connecting to public transportation hubs, employment and retail centers, and other destinations. Generally, the District's West Metropolitan Sector and South Metropolitan Sector have a greater unmet need for paved, multi-use trails. The District will continue to plan for and expand the system of paved, multi- use regional trails connecting parklands and major population centers."

JOGGER ON THE IRON HORSE TRAIL FIGURE 60

"In recent years, the demand for trails close to home has increased dramatically, and trail use has been on the rise for everything from basic transportation to healthful outdoor exercise."

IRON HORSE TRAIL USERS FIGURE 61

JOGGERS AT SYCAMORE VALLEY ROAD FIGURE 62

Transportation Planning Land Use (T-PLUS) Grant Program

"The key objective of this program is to support local jurisdictions' efforts to make land use decisions that will result in increased transit ridership by 1) encouraging higher density development around transit stations, and 2) ensuring that new transit villages are livable and vibrant places with appropriate transportation investments. It is envisioned that this planning program will generate conceptual development plans that will lead to feasible Transit Oriented Development (TOD) projects and identification of complementary transportation capital projects that could compete for TLC funding at the local, countywide and regional level."

Eligible Activities

"Project activities eligible for funding include development of PDA's, creating TOD specific plans around transit centers, designing transit area improvements that promote increased transit ridership, preparing station area revitalization plans, developing transportation and land use plans along a transit corridor, or preparing concept plans, drawings, and final design plans for TOD capital projects in close proximity to transit centers."