STATE ROUTE 152

TRANSPORTATION CONCEPT REPORT

CALTRANS DISTRICT 10
OFFICE OF SYSTEM PLANNING
November 2004

APPROVAL RECOMMENDED:

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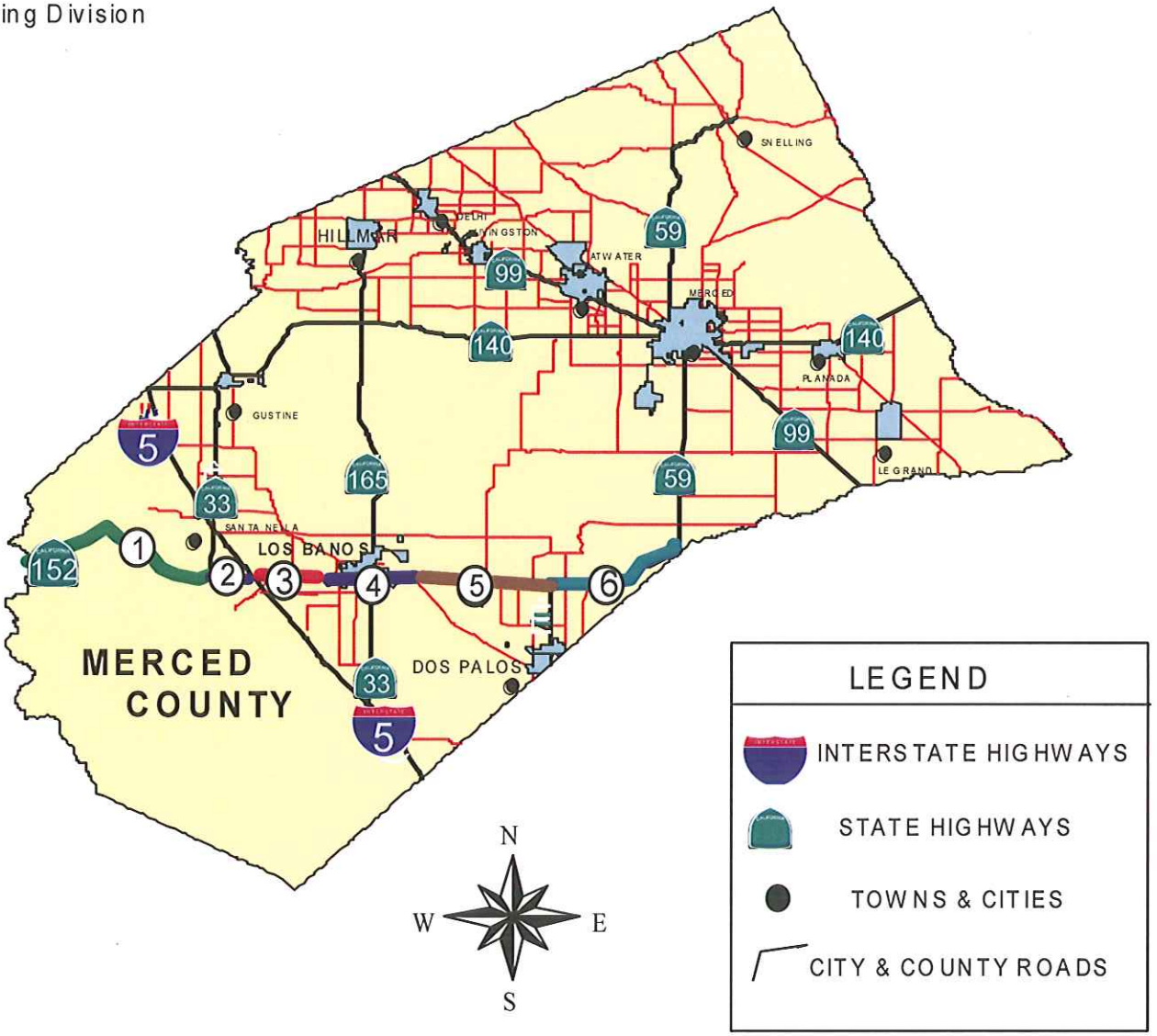
SR-152 TRANSPORTATION CONCEPT REPORT

Segmentation Map - Merced County

Caltrans District 10
Planning Division

Department of Transportation
District 10
Office of System Planning



EXECUTIVE SUMMARY

SEG	POST MILE KILOMETER POST	LOCATION	2002 LOS	CURRENT FACILITY	2025 LOS W/O IMPROVEMENTS	2025 LOS CONCEPT	2025 CONCEPT FACILITY
1	PM 0.00-R13.24 KP 0.00-R21.31	Santa Clara-Merced Co. Ln. to Jct. with SR-33	C	4-lane expressway	F	D	6-lane expressway
2	R13.24/11.27-13.85 R21.31/18.14-22.28	SR-33 To Jct. I-5	B	4-lane expressway	F	D	6-lane expressway
3	PM 13.85-R17.00 KP 22.28-27.35	Jct. with I-5 to Los Banos Creek	B	4-lane expressway	D	D	4-lane expressway/freeway
4	PM R17.00-R24.00 KP R27.35-38.62	Los Banos Creek to Santa Fe Grade	B	4-lane conventional	Los Banos Bypass	D	4-lane expressway/freeway
5	PM R24.00-32.37 KP R38.62-52.09	Santa Fe Grade to East Jct. SR-33	B	4-lane expressway	C	C	4-lane expressway
6	PM 32.37-40.95 KP 52.09-65.90	Jct. SR-33 to Jct. SR-59/ Madera Co Ln	A	4-lane expressway	C	C	4-lane expressway

Transportation Concept Report
State Route 152

STATEMENT OF PLANNING INTENT

System Planning is Caltrans' long-range transportation planning process and is conducted pursuant to Government Code Section 65086(a), and Caltrans policy. The multi-jurisdictional system planning process is multi-modal and considers the entire transportation network, including rail, air, ferries, mass transit, state highways, and local streets and roads. System Planning is used to identify and prioritize future transportation improvements in cooperation with its planning partners. As part of the continuing, cooperative, and comprehensive transportation planning process, System Planning strives for interregional and statewide continuity of the State's transportation network.

PURPOSE OF THE TRANSPORTATION CONCEPT REPORT

System Planning produces three interrelated planning documents that provide guidance, evaluate transportation corridors, and develop system improvements. The three planning documents are:

Transportation Concept Report

The Transportation Concept Report (TCR) is a system planning document and tool which includes an analysis of a transportation corridor. It establishes a 20-year concept that is consistent with the District's goals as set forth in the District System Management Plan (DSMP). The TCR establishes the future concept of Level of Service (LOS) for segments along the route and broadly identifies the nature and extent of the improvements needed to attain that LOS. Operating conditions for each corridor are projected for 10-year and 20-year horizons. Beyond the 20-year planning period, the TCR identifies the Ultimate Transportation Corridor (UTC) to ensure that adequate right-of-way is preserved for future ultimate facility projects. While the 10-year and 20-year plans consider funding issues, the UTC does not.

The objective of the TCR is to have local, regional, and state consensus on route or corridor concepts, improvement priorities, and planning strategies. This document provides concept information only and does not determine policy. TCRs are updated as needed, as conditions change, or as new information is obtained.

Transportation System Development Program

The Transportation System Development Program (TSDP) is the Department's principal document for identifying state highway improvements that are recommended to go

forward into further study and inclusion into regional transportation plans and programs and ultimate consideration in future programming cycles. It includes components for both a recommended plan and a cost constrained plan, and categorizes improvements into two time frames, occurring within 20 years and occurring after 20 years.

District System Management Plan

The DSMP is a strategic and policy planning document for the district's transportation system and communicates the broad transportation system concept and improvement strategies for the district over the next 20 years. It is developed in partnership with regional and local agencies, Native American governments, and the public. The DSMP serves as the foundation for the TCR and TSDP.

These reports are prepared by Caltrans staff in cooperation with the regional and local agencies which have jurisdiction within this corridor.

ROUTE DESCRIPTION

State Route 152 (SR-152) begins at its junction with SR-1 in Watsonville, Santa Cruz County, and ends at its junction with SR 99 in Madera County. It is an east-west rural interregional facility connecting the Monterey Bay Area to the San Joaquin Valley. In District 10, it crosses Merced County and the City of Los Banos.

Route Designation

In District 10, SR-152 is identified as a High Emphasis and Focus Route for the Interregional Road System (IRRS). In some cases, the High Emphasis route is a series of joined portions of routes that constitute a major reasonable transportation corridor. The inclusion of the highway in the High Emphasis and Focus Route categories highlights its critical importance to interregional travel and the State as a whole.

SR-152 is functionally classified as a Principal Arterial. It is included in the California Freeway and Expressway System. It is also included in the Terminal Access Route for the National Truck Network.

SR-152 is an officially designated state scenic highway from the Santa Clara County line to its junction with Interstate 5 in Merced County. Many state highways are located in areas of outstanding natural beauty. The California Scenic Highway System Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from changes, which would diminish the aesthetic value of lands adjacent to highways.

Projects to build new highways or add capacity to existing highways are funded through the State Transportation Improvement Program (STIP). Legislation approved in 1998

(Senate Bill 45) specifies that Regional Transportation Planning Agencies such as the Merced County Association of Governments (MCAG), will have decision-making authority over 75% of STIP funds, while the State makes funding decisions for the remaining 25% of the funds.

Purpose of Route

SR-152 primarily serves as a major connector link between the San Joaquin Valley and the Monterey Bay Area. It is also a major connector to all north/south routes throughout the San Joaquin Valley. In the Los Banos area, SR-152 serves as a main street providing access to the west and east.

ROUTE CONCEPT / SUMMARY / RATIONALE and CONSIDERATIONS

The route concept is comprised of two factors:

1. The minimum LOS tolerable for peak hour conditions.
2. The type of facility necessary to provide the concept LOS. (Refer to Appendix 2 for LOS definitions).

State Route 152 Concept/Summary/Rationale

The IRRS is a series of interregional state highway routes outside urbanized areas that provide access to, and links between, the State's economic centers, major recreational areas, and urban and rural regions. The concept LOS for an IRRS route in rural areas is "C" and "D" in urban and developing areas. The concept LOS for routes that are not on the IRRS is "D."

The concept LOS for the 20-year planning horizon is "D" from Santa Clara-Merced County line (PM 0.00) to Santa Fe Grade (PM R24.00). The concept LOS is "C" from Santa Fe Grade to SR-59 (PM 40.95) Merced-Madera County line.

The existing facility is a 4-lane expressway from Santa Clara/Merced County line (PM 0.00) to Los Banos Creek (PM R17.00); and from Santa Fe Grade (PM R24.00) to Merced/Madera County line (PM 40.95). It is a 4-lane conventional highway from Los Banos Creek (PM 17.00) to Santa Fe Grade (PM R24.00) within the city limits of Los Banos.

The UTC is the facility envisioned beyond the 20-year planning horizon. The UTC is identified to assist in the preservation of adequate right-of-way to accommodate future widening. The UTC for SR-152 is a 6-lane expressway in Merced County. The UTC will be re-evaluated in a few years for possible freeway conversion.

STATE ROUTE 152 CONSIDERATIONS

Context Sensitive Solutions

Caltrans uses "Context Sensitive Solutions" as an approach to plan, design, construct, maintain and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.

Context sensitive solutions meet transportation goals in harmony with community goals and natural environments. They require careful, imaginative, and early planning, and continuous community involvement.

The context of all projects and activities is a key factor in reaching decisions. It is considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations, must be addressed.

In towns and cities across California, the State highway may be the only through street or may function as a local street. These communities desire that their main street be an economic, social, and cultural asset as well as provide for the safe and efficient movement of people and goods. In urban areas, communities want transportation projects to provide opportunities for enhanced non-motorized travel and visual quality. In natural areas, projects can fit aesthetically into the surroundings by including contour grading, aesthetic bridge railings, and special architectural and structural elements. Addressing these needs will assure that transportation solutions meet more than transportation objectives.

For further information regarding context sensitive solutions, you may refer to the Caltrans' booklet called "Main Streets: Flexibility in Design and Operations" that was published in 2002. This booklet emphasizes Caltrans' commitment to the production of transportation projects that make state highways that happen to be local main streets more walkable and livable. It is a manifestation of a trend that is sweeping rapidly across America, and across California. To obtain a copy, contact Caltrans publication staff at (916) 323-5606 or (916) 445-3520, or write to: California Department of Transportation, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, CA 95815-3800, or to view online: http://www.dot.ca.gov/hq/oppd/guidance.htm.

Safety Conscious Planning

Safety conscious planning is incorporated into all planning processes and complements context sensitive solutions. As in most projects, a need is established before a project can

be considered to be built. Congestion, high accident rates, poor LOS, narrow roads, poor alignments, poor roadway surface conditions, and operational deficiencies add to the need for safety and operational improvements. The TCR can be a tool to proactively identify safety improvements. Suggested solutions should complement the surrounding environment and the needs of the people within. Sensitive solutions must be agreed upon by all who use these facilities.

Safety/Operations Improvements

Included on the Segment Fact Sheets for each segment is the Traffic Collision rate for that segment. This rate indicates the number of incidents per million vehicle miles traveled based on three years of data.

The State Highway Operations and Protection Program (SHOPP) is prepared in accordance with the Streets and Highway Code, and departmental policy for management of SHOPP, by the State Department of Transportation, and is approved by the California Transportation Commission (CTC). SHOPP improvements are limited to maintenance, safety, and operational improvements that do not add capacity to the system. Funding for these operational improvements compete on a statewide basis.

Signals

Signals are warranted based on traffic volumes, pedestrian traffic, interruption of continuous traffic and operation, peak hour delay and accidents. There are 7 (seven) traffic signals located along SR-152. These are between Badger Flat Road and Ward Road (P.M. 18.88 and P.M. 21.272) in Los Banos.

The portion of the roadway passing through the City of Los Banos is a 4-lane conventional highway with a center turning lane. This highway segment mixes local traffic, commuter traffic, recreational traffic and agricultural truck traffic. Several signalized intersections along the corridor slow the regional through traffic.

Access Management

Access control is the regulation of public access to and from properties adjacent to highways. The primary purpose of access control is to increase the operational efficiency of the facility by controlling where vehicles enter, exit, or cross the highway. Controlling highway access may also improve traffic safety. Access control is generally classified as full access control, partial access control and access management.

Access management provides, or manages, access to adjacent property and other streets, while maintaining the traffic flow on the highway. Access management can limit deceleration requirements and remove turning vehicles from traffic lanes. Access management techniques are most often applied to conventional highways such as SR-152 in Los Banos.

One of the most beneficial techniques is to limit the number of intersections and driveways along the highway. On highways where business develops without planning of driveway and intersection locations, interference from the roadside can become a major factor in reducing the capacity and increasing the potential for accidents. If access points are adequately spaced with respect to traffic volumes, the highway functions more efficiently.

SR-152 through the City of Los Banos is the only remaining undivided segment between Merced/Santa Clara County and its connection to SR-99 in Madera County. It is also the only portion that mixes regional through-traffic with local traffic. This undivided portion is a 4-lane conventional highway with a center turn lane. This section of the highway mixes local traffic, commuter traffic, recreational traffic and agricultural truck traffic. Several signalized intersections along the corridor slow the regional through traffic.

There are several features that can be utilized to improve access management. Some of these features which are recommended for access management of SR-152 as follows:

1) Raised Median

   A raised median restricts access through the median and directs traffic to median openings and intersections where turning channelization is provided. It is used to restrict left turn movements from driveways and through lanes to eliminate conflicting through-movements, reduce accidents and improve the efficiency of remaining through-movements.

2) Traffic Signals

   Signals are utilized to control movements of mainline traffic and affect access to adjacent streets. The local roads will be allowed partial right in/right out or full access, depending on queuing of vehicles.

   Traffic signals also provide a safety measure for traffic entering the mainline from the local roads. The number and spacing of traffic signals will affect the operational efficiency of SR-152.

In November 2003, the MCAG, the City of Los Banos, and Caltrans District 10 prepared, in a cooperative effort, Los Banos Access Management Plan (LBAMP). This Plan lays out land-use and transportation strategies that control the flow of traffic along SR-152 and SR-165. The LBAMP provides a foundation for local development and Caltrans through the Intergovernmental Review (IGR) and permit processes.

In March 2004, Caltrans prepared a Draft Project Report (PR) which proposed to construct a 4-lane, Los Banos Bypass, around and through the City of Los Banos. Three viable build alternatives are currently under evaluation. The Bypass would begin approximately west of Volta Road and will end approximately east of Santa Fe Grade.

Trucks

The average daily truck traffic volume on SR-152 ranges from 16% to 24% of the ADT volume, with the highest peak in the rural areas. The majority of truck traffic is for the movement of goods and "farm-to-market" crops.

Westbound traffic climbing the Pacheco Pass (elevation 1368-feet) experiences slower truck traffic speeds. However, there is an existing westbound truck climbing-lane up to the top of the Pass.

Planned and Programmed Projects

Planned Projects
No planned projects were identified.

Programmed Projects

County	PM/KP	Description	Designation
Merced	R17.00-R24.00	4-lane expressway/freeway Los Banos Bypass	STIP

RIGHT-OF-WAY AND ENVIRONMENTAL ISSUES

Right-of-Way

In the City of Los Banos, SR-152 is a 4-lane conventional highway with a center turn lane. It is also the main business arterial traversing the City.

Future land use development along SR-152 will require the consideration of several environmental factors such as endangered threatened species, species of concern and protected farmland. Any project to expand capacity along Caltrans facility will require extensive environmental review to comply with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) as well as other state and federal laws and regulations. Therefore, planners and project managers should include sufficient time and resources for environmental review of these projects that will meet our future transportation needs on this facility. Early involvement through the Intergovernmental Review (IGR) process will enhance relationship with regional, local agencies, the community and the private sector in the identification of transportation needs.

The Santa Nella Transportation Improvement Plan (TIP), Draft Traffic Forecast Report, dated September 20, 2004, identifies modifications to the existing freeway interchanges at the junction of Interstate SR-152 with SR-33. The study area for the traffic analysis includes the Santa Nella Community Specific Plan (CSP) area plus SR-33 south to SR-152. The traffic forecasts also include traffic generated by other potential development such as the Villages of Laguna San Luis and proposed development near Los Banos. The

Santa Nella TIP will identify regional and local road improvements that are required to support full development of the Santa Nella CSP in western Merced County.

AIR QUALITY

San Joaquin Valley Air Basin

SR-152 is located in the San Joaquin Valley Air Basin, which is defined by mountain and foothill ranges to the east and west. This area has been designated as a non-attainment for ozone, non-attainment for particulate matter ten microns (PM-10) and unclassified/attainment for carbon monoxide (CO). State and federal laws require that all state and regional transportation plans include conformity with the Environmental Protection Agency's (EPA) adopted State Implementation Plan (SIP) for air quality (AQ). Compliance with the conformity rule mandates that adjacent non-attainment areas work together towards practical attainment strategies, such as the cooperation among the eight local Regional Transportation Planning Agencies (RTPA) within the San Joaquin Valley, Caltrans and the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD).

Due to Valley-wide non-attainment, the eight RTPAs (three agencies in District 10) approved and signed a Memorandum of Understanding (MOU) in September 1992 to develop a comprehensive planning process. The RTPAs developed another MOU with the SJVUAPCD. The major focus of these comprehensive, planning agreements was to reduce emissions through the following measures:

- Development and analysis of transportation control measures that each county could reasonably implement.
- Identification of effective transportation models that would generate a consistent analysis and reporting base.
- Satisfaction of conformity requirements for state and federal funds, especially the Transportation Equity Act for the 21st Century (TEA-21) funds.

The participation of the Valley Counties in the MOU is reflected in the updated San Joaquin County RTP submitted for current STIP funding cycle. The RTP identifies projects aimed not only at road improvements, but also at transit projects. The transit projects focus on reducing single-passenger vehicles trips as well as bicycle paths to make room for non-emission travel.

The 1990 Federal Clean Air Act Amendments (CAAA), promulgated November 15, 1990, placed new requirements on sources and causes of air pollution in areas (including San Joaquin Valley) failing to meet federal air quality standards. The CAAA included more stringent requirements for demonstrating AQ conformity in transportation plans and projects, per the conformity provisions in Section 176(a). On November 15, 1993, the EPA published conformity rules delineating specific criteria and procedures for fulfilling

the conformity requirements of the CAAA. This rule, effective September 15, 1997, is updated and published in the Federal Register August 15, 1997.

ALTERNATIVE MODES OF TRANSPORTATION

Flexibility

One of the Department's goals is making transit a more practical travel option. As a part of the TCR, we will identify gaps in transit service along with deficiencies in access to bicycle and pedestrian facilities. The following information pertains to the inventory of alternative modes of transportation and feasible recommendations to provide a seamless transportation system.

Fixed Route Transit and Demand Response Service

In Merced County the following services are provided:

- The Merced County Transit is the consolidated county-wide public transit system serving all of Merced County from the merger of three former public transit systems and a subsidized municipal taxi service. Services are fixed route or may be requested via the telephone. All vehicles are wheelchair lift equipped.

- The Greyhound Bus Lines is a combined national bus carrier providing service in and through the county. Bus depots are located in Merced and Los Banos.

- Dial-a-Ride provides service throughout Merced County and within the City of Merced. Five buses operate in the City of Merced, making up the urban dial-a-ride fleet, and 10 buses serve the rest of the county making up the rural fleet. Dial-a-Ride is available to the general public except in the cities of Merced and Los Banos, where only persons who are 60 years of age or older or persons with disabilities are eligible.

- Merced Transportation Company (MTC) is a private company which contracts with Merced County schools to provide service to disabled students, the Regional Occupational Program (ROP), and Valley High School Students Program. MTC has also provided similar contracts with Merced County Transit, private schools, and job training agencies.

- Social Service Transportation Providers provides supplementary service addressing needs that are not met through public transit (i.e. evening service, no-emergency medical transport, and job training transport). This service is provided by Merced County.

- VIA Charter Lines provides charter service for private groups, both within the County of Merced and out, as well as fixed route service from Merced to Yosemite National Park.

- Yosemite Area Regional Transportation System (YARTS) was formed by Merced, Mariposa, and Mono Counties to provide transit service throughout the Yosemite region.

Pedestrians

Pedestrian traffic makes up the link between all other forms of transportation. If the facilities for pedestrian traffic are safe, convenient, and seamless, then this will fill one more gap in the system. Our transportation system needs to be seamless. Where there is a break in one form of transportation, the next form needs to make up for it. Because of the difficulty in providing seamless systems in some of the modes, the pedestrian form of transportation is what is left; therefore, the pedestrian form of transportation needs to be provided with safe, convenient, and adequate facilities. Those facilities include signalized intersections, stop signs, sidewalks and cross-walks that are wheelchair accessible, public restrooms, covered resting areas, bicycle storage facilities, and transit waiting areas with benches.

Rail

Merced County is served by the Amtrak "San Joaquin Route" on a daily basis. The San Joaquin Route offer four daily northbound and southbound trains, connecting Los Angeles, Oakland and Sacramento via Stockton. Amtrak has a station in Merced.

The Burlington Northern Railroad and Union Pacific companies provide freight movement in and through Merced County on a daily basis. Freight is moved by rail cars of several types, these include: flat bed cars, piggy-back cars, refrigerated produce cars, fuel tanker cars and regular stock box cars.

Several industrial/manufacturing and agricultural companies within the county use rail freight service. The largest of these rail freight service users are located in the cities of Merced, Atwater, and Los Banos.

Airports

Los Banos Municipal Airport serves Los Banos and Merced County and is owned by the City Of Los Banos. Recently, the Los Banos Municipal Airport has extended the runway to approximately 75'x 800' and parallel taxiway to 35'x 800.' The airport facility is at an elevation of 119 feet at a distance of about one mile from the City.

Currently, each of the airport facilities in Merced County is meeting the basic aviation needs of the public. Based on forecasts for airport operations, none of the airports within the county will exceed operations capacity over the Regional Transportation Plan (RTP) implementation period.

Bicycle Facilities

The City of Los Banos adopted a Bikeway Plan in November 2002. The Plan is an extensive system of bikeways that connects to the major trip generators as well as parks and schools. The City has also recently been awarded funding from the bicycle Transportation Account to assist in implementing their plan.

The City of Los Banos has a single Class I bike path/trail way located along the Central California Irrigation District (C.C.I.D.) Canal between Pioneer Road and "I" Street. The trail way provides access to several neighborhoods. From Badger Flat Road to the San Luis Canal is the designated bike lane along SR-152.

Park-and-Ride Facilities

Park-and-Ride (P&R) facilities are important staging areas for ride-sharing activities, such as carpooling, vanpooling or transit use. By using P&R facilities, commuters can save time and money and help minimize traffic congestion.

In March 2004, Caltrans prepared a P&R Plan for District 10. This Plan contains guidelines of new P&R facilities throughout the District based on a 20-year demand. This Plan does not contain information pertaining to funding facilities.

The following are the existing and planned P&R facilities along or in the proximity of SR-152:

Existing Park-and-Ride Facilities

Community	Location
Los Banos	Wal-Mart at Badget Flat Road
Los Banos	Los Banos Airport

Planned Park-and-Ride Facilities

Community	Location
Santa Nella	I-5 and SR-152

Source: Caltrans P&R Plan for District 10 (March 2004).

INTELLIGENT TRANSPORTATION SYSTEM (ITS)

Non-recurring congestion and delays are attributed to unplanned incidents such as traffic accidents, stalled vehicles, or special events. This non-recurring congestion may be reduced by improving incident management and reducing the number of incidents through an ITS. ITS is designed to identified non-recurring incidents and remove them from the freeway as quickly and efficiently as possible. ITS also provides benefits for traveler information and congestion management through changeable message signs (CMS) boards, ramp metering, and automated warning systems.

District 10 has embarked on a program of advanced technology to meet our present and future traffic demands which includes the 2004 District 10 Transportation Management ITS Plan. The Plan proposes Automatic Curve Warning System, Weather Stations, Changeable Message Signs (CMS) and Close Circuit Television (CCTV).

A San Joaquin Valley ITS Strategic Deployment Plan (SJV ITS SDP) has recently been completed for the eight Valley counties of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kern, Kings, and Tulare. The Plan includes recommendations for valley-wide and inter-jurisdictional initiatives to address problems that affect the entire region, as well as recommendations for projects that will address specific local problems throughout the valley. The San Joaquin Valley ITS Strategic Deployment Plan is intended to provide a starting point for regional ITS coordination, programming, and implementation efforts over the next twenty years.

Caltrans Traffic Management has planned 2 (two) CMS signs along the Los Banos Bypass project limits (PM 17.00 to PM 24.00). One eastbound, on the west end of the project, and one westbound, on the east end of the project. These CMS signs will be installed when the Los Banos Bypass is constructed.

SR-152: MERCED COUNTY - SEGMENT 1
FACT SHEET

Location Santa Clara Co. Ln. to SR-33
PM: 0.00-R13.24=11.27 equation
KP 0.00-R21.31=18.14 equation
Length 13.24 miles/21.31 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Rural
Within City Limits: No
Terrain: Rolling

Traffic Forecast Data
4-Lane Expressway
Average Highway Speed 65-mph

	2002 Existing Facility	2015 w/o Improvement	2025 w/o Improvement
LOS	C	E	F
V/C	0.57	0.93	1.36
ADT	29,750	48,600	70,900
Peak Hour Volume	3,480	5,700	8,300
Peak Hour Dir. Split	55/45	55/45	55/45
Trucks %	17%	17%	17%

Concept Facility (2025) 6-lane Expressway; LOS D

Ultimate Transportation Corridor 6-lane Expressway
Possible truck climbing lane

Local Planning Jurisdiction Merced County Association of Governments

No Planned Project or programmed project(s) were identified for this segment

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway	X	
Accessible to Bicycles	X	

***Right-of-Way Information**

Right-of-way ranges from 200 to 300 feet (60.96 to 91.44 meters) for most of the segment. The widest portion is 1175 feet (358.14 meters) at Post Mile 1.25 (Kilometer Post 2.01). Additional right-of-way may be necessary to increase capacity.

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	N/A
Jurisdictional Waters of the U.S.	Moderate
Special Status Species	High
Cultural Resources	High
Leaking Underground Tanks	Low
Possible Hazardous Waste	Moderate
Other Comments About This Segment	ESA 2.60-18.10

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.19	0.48	0.32	0.71

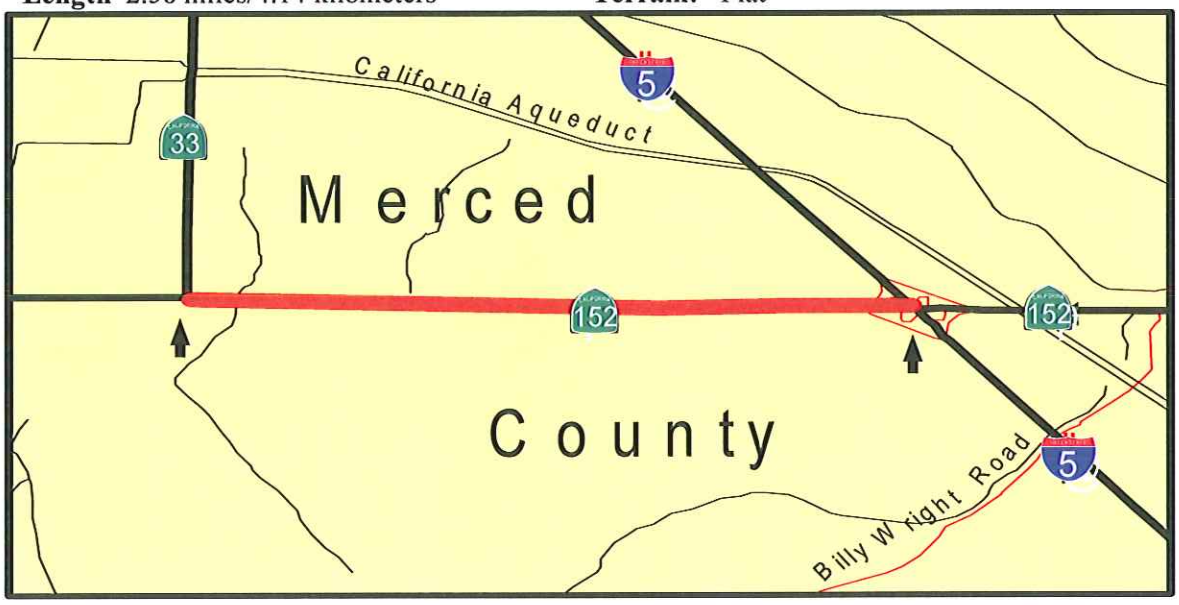
Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

SR-152: MERCED COUNTY - SEGMENT 2
FACT SHEET

Location SR-33 to Jct. I-5
PM: R13.24=11.27 equation - 13.85
KP: R21.31=18.14 equation - 22.28
Length 2.58 miles/4.14 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Rural
Within City Limits: No
Terrain: Flat



Traffic Forecast Data
4-Lane Expressway
Average Highway Speed 65-mph

	2002 Existing Facility	2015 w/o Improvement	2025 w/o Improvement
LOS	B	D	F
V/C	0.52	0.83	1.21
ADT	29,000	46,500	67,900
Peak Hour Volume	3,200	5,050	7,400
Peak Hour Dir. Split	80/20	80/20	80/20
Trucks %	24%	24%	24%

Concept Facility (2025) 6-lane Expressway; LOS D

Ultimate Transportation Corridor 6-Lane Expressway

Local Planning Jurisdiction Merced County Association of Governments

No planned project or programmed project(s) were identified for this segment.

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway	X	
Accessible to Bicycles	X	

***Right-of-Way Information**

Right-of-way ranges from 200 to 300 feet (60.96 to 91.44 meters) for most of the segment. The widest portion is 1175 feet (358.14 meters) at Post Mile 1.25 (Kilometer Post 2.011). Additional right-of-way may be necessary to increase capacity.

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	N/A
Jurisdictional Waters of the U.S.	Moderate
Special Status Species	High
Cultural Resources	High
Leaking Underground Tanks	Low
Possible Hazardous Waste	Moderate
Other Comments About This Segment	ESA 2.60-18.10

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.12	0.42	0.32	0.70

Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

SR-152: MERCED COUNTY – SEGMENT 3
FACT SHEET

Location Jct. I-5 to Los Banos Creek
Post Mile: PM 13.85-R17.00
Kilometers Post: KP 22.28-27.35
Length 3.15 miles/5.07 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Rural
Within City Limits: No
Terrain: Flat

Traffic Forecast Data
4-Lane Expressway
Average Highway Speed 65-mph

	2002 Existing Facility	2015 w/o Improvement	2025 w/o Improvement
LOS	B	C	D
V/C	0.35	0.53	0.72
ADT	19,450	29,000	39,400
Peak Hour Volume	2,200	3,300	4,450
Peak Hour Dir. Split	60/40	60/40	60/40
Trucks % ADT	16%	16%	16%

Concept Facility (2025) 4-lane Expressway/Freeway; LOS D

Ultimate Transportation Corridor 6-lane Expressway/Freeway

Local Planning Jurisdiction Merced County Association of Governments

No planned or programmed project(s) were identified for this segment

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway		X
Accessible to Bicycles	X	

***Right- of-Way Information**

Right-of-way width is 200 feet (69.96 meters) at the beginning of the segment, increases to 615 feet (187.452 meters) at its greater width, and decreases to 115 feet (35.052 meters) at the end of the segment. Right-of-way for the Los Banos bypass will be determined when the preferred alternative is selected.

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	N/A
Jurisdictional Waters of the U.S.	High
Special Status Species	High
Cultural Resources	High
Leaking Underground Tanks	Low
Possible Hazardous Waste	Moderate
Other Comments About This Segment	ESA 2.60-18.10

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.40	1.06	0.29	0.64

Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

SR-152: MERCED COUNTY - SEGMENT 4
FACT SHEET

Location Los Banos Creek to Santa Fe Grade
Post Mile: PM R17.00-R24.00
Kilometers Post: KP 27.35-38.62
Length 7.00 miles/11.26 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Urban
Within City Limits: Yes
Terrain: Flat

Traffic Forecast Data
Pending Los Banos Bypass preferred alternative*

	2002 Existing Facility	2015 Los Banos Bypass	2025 Los Banos Bypass
LOS	B	Pending	Pending
V/C	0.40	Pending	Pending
AADT	27,000	Pending	Pending
Peak Hour Volume	2,700	Pending	Pending
Peak Hour Dir. Split	55/45	Pending	Pending
Trucks % ADT	16%	Pending	Pending

*An alternative for the Los Banos Bypass has not been selected. The forecast data will be provided when a preferred alternative is identified. Also, the City of Los Banos, MCAG, and Caltrans recently developed the LBAMP that will provide interim or alternative transportation system management options for improving traffic circulation and safety on SRs 152 and 165 through the City of Los Banos.

Concept Facility (2025)	4-lane Expressway/Freeway on new alignment Los Banos Bypass; LOS D
Ultimate Transportation Corridor	6-lane Expressway/Freeway
Local Planning Jurisdiction	City of Los Banos Merced County Association of Governments

No planned project(s) were identified for this segment

Programmed Project

County	PM/KP	Description	Designation
Merced	R17.00-R24.00	4-lane expressway/freeway, Bypass	STIP

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway		X
Accessible to Bicycles	X	

***Right-of-Way Information**

Right-of-way width ranges from 60 to 80 feet (18.30 to 24.38 meters).

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	N/A
Jurisdictional Waters of the U.S.	High
Special Status Species	High
Cultural Resources	Moderate
Leaking Underground Tanks	High
Possible Hazardous Waste	Moderate
Other Comments About This Segment	ESA 2.60-18.10

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.89	2.59	1.05	2.40

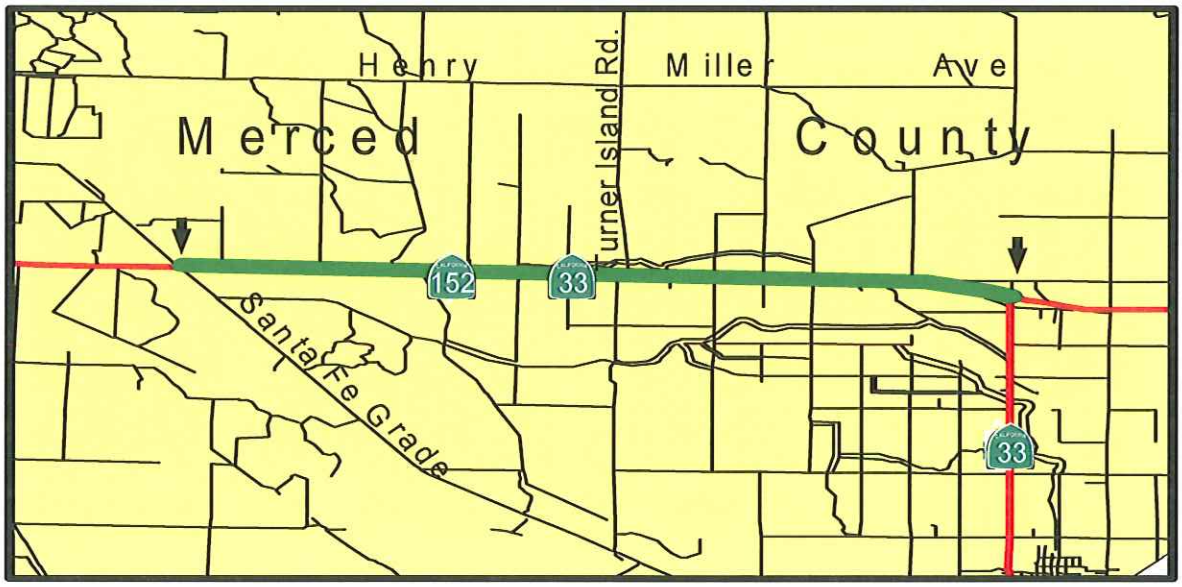
Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

SR-152: MERCED COUNTY - SEGMENT 5
FACT SHEET

Location Santa Fe Grade to East Jct. SR-33
Post Mile: PM R24.00-32.37
Kilometers Post: KP R38.62-52.09
Length 8.37 miles/13.38 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Rural
Within City Limits: No
Terrain: Flat



Traffic Forecast Data
4-Lane expressway
Average Highway Speed 65-mph

	2002 Existing Facility	2015 w/o Improvement	2025 w/o Improvement
LOS	B	C	C
V/C	0.35	0.50	0.67
ADT	19,000	27,600	36,700
Peak Hour Volume	2,150	3,100	4,150
Peak Hour Dir. Split	60/40	60/40	60/40

Trucks % ADT	16%	16%	16%

Concept Facility (2025) 4-lane Expressway; LOS C

Ultimate Transportation Corridor 6-lane Expressway

Local Planning Jurisdiction Merced County Association of Governments

No programmed or planned project(s) were identified for this segment.

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway		X
Accessible to Bicycles	X	

***Right- of-Way Information**
Right-of-way width ranges from 80 to 315 feet (24.38 to 96.01 meters).

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	N/A
Jurisdictional Waters of the U.S.	Moderate
Special Status Species	High
Cultural Resources	High
Leaking Underground Tanks	Low
Possible Hazardous Waste	Moderate
Other Comments About This Segment	No

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property Damage only)	Fatal & Injury	Total (Includes Property Damage only)
0.19	0.66	0.28	0.63

Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

SR-152: MERCED COUNTY - SEGMENT 6
FACT SHEET

Location E Jct. SR-33 to SR-59/Madera Co. Ln.
Post Mile: PM 32.37-40.95
Kilometers Post: KP 52.09-65.90
Length 8.58 miles/13.81 kilometers

Functional Classification: Principal Arterial
Rural/Urban: Rural
Within City Limits: No
Terrain: Flat

Traffic Forecast Data
4-Lane Expressway
Average Highway Speed 65-mph

	2002 Existing Facility	2015 w/o Improvement	2025 w/o Improvement
LOS	A	B	C
V/C	0.30	0.46	0.63
ADT	16,530	25,200	34,700
Peak Hour Volume	1,850	2,850	3,900
Peak Hour Dir. Split	60/40	60/40	60/40

Trucks % ADT	17%	17%	17%

Concept Facility (2025) 4-lane Expressway; LOS C

Ultimate Transportation Corridor 6-lane Expressway

Local Planning Jurisdiction Merced County Association of Governments

No planned or programmed project(s) were identified for this segment.

SYSTEM DESIGNATIONS	YES	NO
Freeway/Expressway	X	
National Highway System	X	
Interregional Road System	X	
High Emphasis Route	X	
Focus Route	X	
Strategic High Network (STRAHNET)		X
Terminal Access Route for National Truck Network	X	
Scenic Highway		X
Accessible to Bicycles	X	

***Right-of-Way Information**

Right-of-way width ranges from 200 to 320 feet (61.00 to 97.54 meters) and decreases to 90 feet (27.43 meters) near the junction with SR-59 at the Madera County Line.

***Air Quality**

Ozone	PM-10	CO
Non-attainment	Non-attainment	Unclassified/Attainment

***Environmental Status**

SR-152 Environmental Status	Degree of Impact - if appropriate
Flood Plains	100 Year
Jurisdictional Waters of the U.S.	Low
Special Status Species	High
Cultural Resources	Moderate
Leaking Underground Tanks	Low
Possible Hazardous Waste	Moderate
Other Comments About This Segment	No

Traffic Collision Rate (per million vehicle miles traveled)

Actual Accident Rate		Statewide Average Rate	
Fatal & Injury	Total (Includes Property	Fatal & Injury	Total (Includes Property

	Damage only)		Damage only)
0.29	0.74	0.28	0.61

Source: TASAS Database (January 1, 2000 - December 31, 2002).

*NOTE: This information is for overview purpose only and does not replace a full report from right-of-way, environmental, or any other branch or division.

Appendix 1
List of System Planning Acronyms

ADT	Average Daily Traffic
AQ	Air Quality
ATIS	Advance Transportation Information System
CAAA	1990 Federal Clean Air Act
CCR	California Code of Regulations
CCTV	Close Circuit Television
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CMS	Changeable Message Signs
CO	Carbon Monoxide
CTC	California Transportation Commission
DSMP	District System Management Plan
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
HOV	High Occupancy Vehicle
IGR	Intergovernmental Review
IIP	Interregional Improvement Program
IRRS	Interregional Road System
ITS	Intelligent Transportation System
KP	Kilometer Post
LBAMP	Los Banos Access Management Plan
LOS	Level of Service
MCAG	Merced County Association of Governments
MIS	Major Investment Studies
MOU	Memorandum of Understanding
MTC	Merced Transportation Company
NEPA	National Environmental Policy Act
NHS	National Highway System
PM	Post Mile
PM-10	Particulate Matter 10 microns
PR	Project Report
P&R	Park-and-Ride
RIP	Regional Improvement Plan
RTP	Regional Transportation Plan
SHOPP	State Highway Operations and Protection Program
STRAHNET	Strategic Highway Network
SIP	State Implementation Plan
SJCOG	San Joaquin Council of Governments
SJVUAPCD	San Joaquin Valley Unified Air Pollution Control District
STIP	State Transportation Improvement Program
TASAS	Traffic Accident Surveillance Analyst System

TCR	Transportation Concept Report
TEA-21	Transportation Equity Act of the 21st Century
TSDP	Transportation System Development Plan
UTC	Ultimate Transportation Corridor
V/C	Volume to Capacity (ratio)
YARTS	Yosemite Area Regional Transportation System

Appendix 2
Level of Service (LOS) Definitions

The LOS is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:

LOS A describes free-flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.

LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F represents a breakdown or forced flow. It usually occurs at a point on a planned facility when forecast demand exceeds computed capacity.

Appendix 3
Rural, Urban, and Urbanized Definitions

The rural, urban, and urbanized area limits are based upon population density as determined by the U.S. Census Bureau. The criteria are:

Rural – Under 5,000 population

Urban – 5,000 to 49,999 population

Urbanized - Over 50,000 population

Appendix 4
Air Quality Definitions

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or non-attainment.
- **Attainment:** a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a three-year-period.
- **Non-attainment**: pollutant is designated non-attainment if there was at least one violation of a State standard for that pollution in the area.
- **Non-attainment/Transitional**: a sub-category of the non-attainment designation. An Area is designated non-attainment/transitional to signify that the area is close to attaining the standard for that pollutant.

Appendix 5

Environmental Status Definitions

Flood Plains: Flood data from FEMA Digital Q3 Data Mapping and identification whether or not areas are within 100 or 500 year floodplain.

Jurisdictional Waters of the U.S. (including wetlands): are described as those that are under federal and/or state regulatory authority. Waters of the U.S. include essentially all surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries all wetlands adjacent to these waters, and all impoundments of these waters. Wetland data obtained from the U.S. Fish and Wildlife Service National Wetland Inventory Mapping, previous survey data, or other in office sources. Army Corps of Engineer and EPA definition of wetlands are: those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Special Status Species: Species that are legally protected under federal and state Endangered Species Acts or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing.

- Species listed or proposed for listing as threatened or endangered under the federal or state Endangered Species Act (50 CFR 17.12 and 14 CCR 670.5);
- Species that are federal candidates for possible future listing under the federal Endangered Species Act;
- Species listed as Federal Species of Concern;
- Species that meet the definition or are endangered under the California Environmental Quality Act (CEQA), State CEQA guidelines, section 15380.
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq).
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California (Lists 1A and 2 in Skinner and Pavlik 1994)."
- Plants listed by CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in Skinner and Pavlik 1994), which may be included on the basis of local significance or recent biological information;
- A Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service Sensitive Species.