

Transportation Planning Fact Sheet

State Route (SR) 154 in Santa Barbara County



Purpose of this Transportation Planning Fact Sheet:

Transportation Planning Fact Sheets provide one comprehensive summary document that captures physical, social, political, and development characteristics along State Routes and provides web links to various planning resources and documents. Fact sheets are to be used as supplemental planning documents to Transportation Concept Reports (TCRs) and to future Corridor System Management Plans (CSMPs).

Route Description:

SR 154 is approximately 33 miles in length. According to the 2011 *Transportation Concept Report: State Route 154* (see attached), the route is composed into three main segments which are divided into sub-segments - reference map below. SR 154 begins in Santa Barbara intersecting US 101 and continues northwesterly crossing SR 246 in Santa Ynez before reconnecting with US 101 north of Buellton.



- Traffic: ranges between regional and interregional
- Access Control: transitions between expressway and conventional highway
- [Functional Classification](#): alternates minor arterial and principal arterial
- Terrain: transitions between flat, rugged and hilly

Traffic Volumes:

- 2008 AADT: 10,000 – 20,500
- 2030 AADT: 19,500 – 26,400

Truck Traffic:

- Peak Hour: 2% - 5%
- ADT: 3.2% - 6.25%

Route Concept and 20-yr Plan Recommendations:

According to the 2011 *Transportation Concept Report: State Route 154*, the route concept for 2030 and 20 year plan recommendation are as follows:

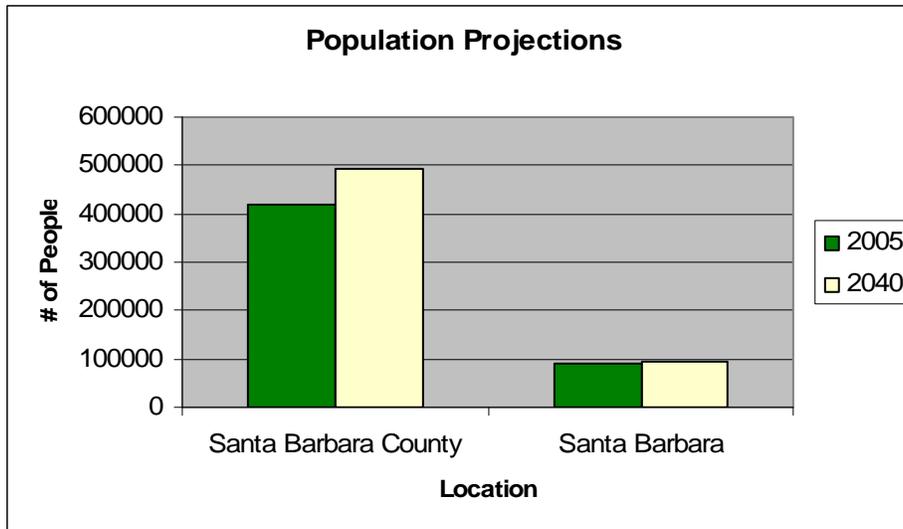
Segment	Begin Postmile	End Postmile	Existing Facility	Route Concept	20-yr Plan Recommendation
1A	0.02	R2.39	2-Lane Conventional Highway PM 0.0-R2.14 2-Lane Expressway PM R2.14-R2.39	2-Lane Expressway	Upgrade sections of conventional highway to an expressway
1B	R2.39	R8.11	2-Lane Expressway	2-Lane Expressway	Maintain existing functional classification
2A	R8.11	14.77	2-Lane Expressway PM R8.11/12.18 2-Lane Conventional Highway PM 12.18/14.77	2-Lane Conventional Highway/Expressway	Maintain existing functional classification
2B	14.77	23.38	2-Lane Conventional Highway PM 14.77/17.87 2-Lane Expressway PM 17.87/23.38	2-Lane Conventional Highway/Expressway	Maintain existing functional classification
3A	23.38	R31.55	2-Lane Conventional Highway PM 23.38/24.67, PM 30.47/R32.84 2-Lane Expressway PM 24.67/30.47	2-Lane Conventional Highway/Expressway	Maintain existing functional classification
3B	R31.55	R32.29	2-Lane Freeway/Expressway	4-Lane Freeway/Expressway	Maintain existing functional classification
3C	R32.29	R32.84	2-Lane Conventional SR 154 west bound only	2-Lane Conventional Highway	Maintain existing functional classification

Route Designations:

- Freeway and Expressway System
- Interregional Road System
- [Scenic Highway System](#): Official Route
- [Truck Designations](#): The portion of SR 154 from PM 0 to PM 10 (Santa Agueda Creek Road) is classified for Terminal Access. The portion from the SR 246 intersection to the southern US 101 junction restricts the transportation for hazardous waste.

County Profile:

- [Santa Barbara County](#) consists of eight incorporated cities. [City of Santa Barbara](#) is the only incorporated city located within the SR 154 corridor (web links connect to city/county general plans).
- According to the Santa Barbara County Association of Governments (SBCAG) 2007 [Regional Growth Forecast 2005 - 2040](#), 18% growth in Santa Barbara County between 2005 and 2040. This is a projected increase of 417,500 to 492,800 - reference chart below.



(Santa Barbara County Association of Governments, August 2007 Regional Growth Forecast 2005-2040.)

- Approximately 39.1% of Santa Barbara County residents speak another language other than English at home (US Census Bureau, 2010).
- Santa Barbara County is a coastal area surrounded by the counties of San Luis Obispo, Kern, and Ventura. According to the SBCAG 2007 *Regional Growth Forecast 2005-2040*, an increase in commercial development and a reduction of residential development in the 1980's resulted in a jobs/housing imbalance in Santa Barbara County. This created greater demands on the regional transportation system, increasing the volume of highway commuters from northern Santa Barbara and Ventura County.

Bicycle Access:

- According to the Caltrans-District 5 2004 [Bicycle Map: For State Highways of the Central Coast](#), all of the State Highways are open to bicyclist except at a few sections of freeways. There are no restrictions for bicycle use on SR 154.
- In efforts to increase bicycle ridership which has been declining in Santa Barbara County since the 1980's, SBCAG produced the [2008 Draft Regional Bike Plan](#). The County of Santa Barbara adopted a Bicycle Master Plan January 2005 and the City of Santa Barbara adopted [The City of Santa Barbara Bicycle Master Plan](#) 2008.

Public Transportation:

Public transit service along the SR 154 corridor in Santa Barbara County is limited. However, numerous public transit service options are available on US 101 which intersects SR 154 at both ends of the corridor. These services include the following:

- [Central Coast Shuttle](#) provides transportation from Santa Maria, Buellton, Santa Barbara, and Ventura to LAX.
- [Clean Air Express](#) offers commuter bus service from Lompoc and Santa Maria to Goleta and Santa Barbara.
- [Coastal Express](#) provides commuter service between Oxnard, Ventura, Carpinteria, Santa Barbara, Goleta and UC Santa Barbara.
- [Coastal Express Limited](#) provides commuter service between the Ventura County Government Center and Santa Barbara/Goleta.
- [Greyhound](#) offers intercity bus service between San Luis Obispo, Santa Maria, Santa Barbara, Ventura and Los Angeles.

- [Sliverado Coast Flyer](#) provides three trips a day with multiple stops from Cal Poly San Luis Obispo to Long Beach.
- [Traffic Solutions](#) is a division of Santa Barbara County Association of Governments (SBCAG) which promotes alternatives to single vehicle ridership including walking, biking, carpooling, vanpooling and telecommuting through different transit services.
- [Park and Ride](#) is one example of a service provided by Traffic Solutions which offers meeting locations for people to park and carpool. Currently, there are two existing Park and Ride lots that serve commutes within the SR 154 “travel shed” and there is a third lot under development. The existing lots are located on SR 246 near SR 154 and in Buellton on Avenue of Flags near Bear Creek Drive. Efforts are underway to create a new lot on an unused portion of the Caltrans right-of-way adjacent to the southbound highway 101 exit at the north end of Avenue of Flags.

Intercity Rail Service:

[Amtrak](#) serves Santa Barbara County in providing rail and bus service from Los Angeles to Seattle. Their newly improved [Coast Starlight](#) train offers an all encompassing travel experience, complete with diner, sleeping and entertainment focused cars. Caltrans [Pacific Surfliner](#) also offers five trains a day with service from San Diego to Santa Barbara. Two of these trains extend their route to San Luis Obispo.

Airport:

Six airports are located throughout Santa Barbara County and include: [Santa Maria Public Airport District \(SMX\)](#), [Vandenberg Air Force Base \(VBG\)](#), [Lompoc Airport \(LPC\)](#), [Santa Ynez Valley Airport \(IZA\)](#), [Santa Barbara Municipal Airport \(SBA\)](#), and [New Cuyama Airport \(L88\)](#). Of these six, Santa Maria Public Airport District and Santa Barbara Municipal Airport provide the most extensive public regional airline services in the County.

Transportation Agencies:

- [Santa Barbara County Association of Governments \(SBCAG\)](#) – MPO/RTPA
- [Santa Barbara Metropolitan Transit District \(SBMTD\)](#)

State Highway Projects:

For an updated list of State Highway projects (including State Transportation Improvement Plan/State Highway Operation and Protection Program) along SR 154 in Santa Barbara County, click the Caltrans District 5 *Status of Projects* web link: <http://www.dot.ca.gov/dist05/projects/pdf/d5sop.pdf>

- For more information about Caltrans Santa Barbara County highway projects, visit: <http://www.dot.ca.gov/dist05/projects/#sb>
- Transportation Projects identified in the SBCAG 2008 Regional Transportation Plan: <http://www.sbcag.org/publications.html>
- Local Agency STIP Projects - Caltrans Local Assistance Website: http://www.dot.ca.gov/dist05/local/stip_index.html

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Travel Forecasting

Transportation Concept Report State Route 154



Prepared by the
State of California Department of Transportation

Santa Barbara County, CALIFORNIA
August 2011

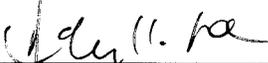




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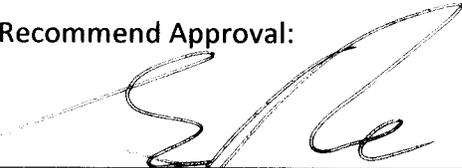
I approve this *Transportation Concept Report* for State Route 154 in District 5 as the guide for future decisions, investigations, and investments in the highway corridor.

Recommend Approval:

 8/15/11

Aileen K. Loe Date
Deputy District Director
Planning and Local Assistance

Recommend Approval:

 8/15/11

Steve Price Date
Deputy District Director
Maintenance and Operations

Approved:

 8/15/2011

Richard Krumholz Date
District Director



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Executive Summary

This Transportation Concept Report (TCR) is the California Department of Transportation's (Caltrans) long-term planning document for the State Route 154 (SR 154) corridor in District 5. The TCR (1) evaluates current and projected conditions along the route, (2) considers the overall context of the facility including, but not limited to the physical and community context, (3) establishes a twenty-year planning vision or concept, and (4) recommends performance indicators for managing, operating, improving the State Highway System across all modes and jurisdictions.

SR 154 extends 32.8 miles through District 5 within Santa Barbara County. Segments of the route carry regional and interregional traffic. SR 154 begins and ends at interchanges with Route 101 (US 101), cutting diagonally across the Santa Ynez valley, past Lake Cachuma, and over the San Marcos Pass into the city of Santa Barbara.

US 101 serves as the principal north/south artery for Santa Barbara County; however, commuters and vacationing travelers are using the SR 154 alternative more frequently. In addition to serving local traffic needs, the route provides access for commuters from the Lompoc, Santa Ynez valley, and Santa Maria/Orcutt to Santa Barbara/Goleta area. Local officials and community citizens have consistently expressed a desire to retain SR 154's rural character and scenic beauty. Local residents have commented that one traffic light may lead to a string of them, and this input has generated plans to also examine stop signs or roundabout alternatives. The community would not be receptive to widening Route 154 to a four lane facility as an option to improve mobility through this corridor, and the Regional Transportation Plan reflects this as a policy.

Land use and development adjacent to the state facility have a substantial impact on speed and delay encountered on the route. The Santa Barbara County, *Santa Ynez Valley Community Plan* identifies the policies and goals for development within the Santa Ynez valley. In order to address the community concerns and local circulation, it is recommended that the transportation partners continue to coordinate local circulation improvements that reduce or avoid impact to SR 154. Access will need to be consolidated, parallel routes be improved and through movements be protected as development continues in the Santa Ynez valley. Developments in the corridor that impact the state facility would be required to mitigate their impacts on local circulation at existing intersections.

Responsible involvement and input is necessary from all of the impacted parties. District 5 has participated fully in the development of the Santa Ynez valley planning efforts, in consultation with its regional partners and the public.

In the case of SR 154, evaluating increased modal alternatives (e.g., additional transit) and transportation demand management opportunities will be necessary due to the anticipated increase in levels of traffic projected for the model years of 2010, 2020, and 2030. The Route

Concept, a 20-yr plan, does not recommend any lane additions to improve capacity, due to financial and environmental costs and lack of public support. It does recommend for improved local circulation and emphasis on a parallel roads that remove local traffic from SR 154. The Route Concept for the route is to continue free flow speeds and minimize overall delays. Table 1 summarizes the existing Annual Average Daily Traffic (AADT) and the projected 2030 AADT.

For this analysis, SR 154 was divided into three segments. For each segment and sub-segment traffic data were compared with traffic projections for future years and safety data compared to similar State highway facilities. In analyzing the operation of the route, traffic model runs generated Levels of Service that are not representative of current delay (see Appendix E). Rather than LOS, drivers' perceptions and computed delay were used to analyze the operation of the route, and set a performance standard of greater than 35 miles per hour for each segment. The results coincided with drivers' expectations to show a much more acceptable commute flow through all segments of the route. Volume over Capacity Ratios (V/C) are also shown. **Table E.1** summarizes the existing Annual Average Daily Traffic (AADT) and the projected 2030 AADT.

SEGMENT	2008 AADT	2030 AADT	PERCENT CHANGE
1A	10,000	19,500	95%
1B	10,000	19,500	95%
2A	15,600	26,400	69%
2B	15,600	26,400	69%
3A	14,700	23,900	63%
3B	20,500	23,700	16%
3C	20,500	23,700	16%

The regional model and travel time survey was used to compute delay to analyze the operation of the route. *Delay is computed as the time spent traveling at less than posted speed and delay under congestion is the time spent traveling at less than 35 mph.* Current **delays introduced by congestion** are minimal (less than 90 seconds for a 33 mile route during peak traffic), but the volume of vehicles is increasing about 2.2% per year.

California Streets and Highways Codes, Section 253.1, includes the entire SR 154 as part of the freeway and expressway system. Based on current deficiencies, forecasts, travel time survey and guided by the Interregional Transportation Strategic Plan, the Department identified the Route Concept and 20-yr plan for SR 154 (San Marcos Pass Road), see **Table E.2**.

Table E.2 SR 154 Segment Considerations and Route Concept for 2030

SEGMENT	SEGMENT LIMITS	EXISTING FACILITY	ROUTE CONCEPT	20-yr Plan RECOMMENDATION
1A	US 101 to Foxen Canyon Road (Community of Los Olivos) PM 0.02/R2.39	2-Lane conventional highway PM 0.0-R2.14 2-Lane expressway PM R2.14-R2.39	2-lane Expressway	Upgrade sections of conventional highway to an expressway
1B	Foxen Canyon Road to SR 246 (Mission Drive) PM R2.39/R8.11	2-Lane Expressway	2-lane Expressway	Maintain existing functional classification
2A	SR 246 (Mission Drive) to Lake Cachuma County Park PM R8.11/14.77	2-Lane expressway PM R8.11/12.18 2-Lane conventional highway PM 12.18/14.77	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
2B	Lake Cachuma County Park to Stagecoach Road (Southeast of Cold Spring Arch Bridge) PM 14.77/23.38	2-Lane conventional highway PM 14.77/17.87 2-Lane expressway PM 17.87/23.38	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
3A	Stagecoach Road to SR 192 (Foothill Road) PM 23.38/R31.55	2-Lane conventional highway PM 23.38/24.67, PM 30.47/R32.84 2-Lane expressway PM 24.67/30.47	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
3B	SR 192 (Foothill Road) to US 101 interchange (East Bound Rte 154 ends at intersection with south bound ramps) PM R31.55-R32.29	2-lane Freeway/Expressway	4-lane Freeway/ Expressway	Maintain existing functional classification
3C	West Bound Rte 154 (Calle Real) - Jct 101 to State Street in the city of Santa Barbara PM R32.29-R32.84	2-lane conventional SR 154 west bound only	2-lane Conventional Highway	Maintain existing functional classification

For the purposes of this Transportation Concept Report, the Ultimate Concept (20 years and beyond) will remain the same for SR 154.

Table E.3 Summary of Route Concept Recommendations

NUMBER	SEGMENTS	ROUTE CONCEPT RECOMMENDATIONS
1.	1	Limit access points to convert more of the conventional highway portions into expressways (Segment 1).
2.	1	Consolidate access with increased development and consider various operational improvements including roundabouts.
3.	1, 2, 3A, 3C	Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists.
4.	All	Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing.
5.	All	Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. Partner with Transportation Agencies who would desire to implement new technologies for enhanced detection on the state highway system.
6.	All	Promote the use of Transportation System Management and Transportation Demand Management measures by all stakeholders.
7.	All	Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

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Chapter 1 Transportation Concept Report Overview

System planning is the California Department of Transportation's (Caltrans) long range transportation planning process, conducted pursuant to Government Code Section 65086[a] and Caltrans policy. The objective of system planning is to ensure that investments in the state highway system and the larger transportation system will result in one that meets future needs for safety, mobility, and access for people and goods. The method of system planning is to identify, at the earliest stage, those capacity and operational improvements and new technologies that will optimize corridor capacity and improve regional and interregional mobility. System planning thereby lays the groundwork for informed investment decisions. The system planning process includes the production of three interrelated sets of planning documents: (1) Transportation Concept Reports (TCRs), (2) Transportation System Development Program (TSDP), and (3) District System Management Plan (DSMP)¹.

1.1 What is a Transportation Concept Report?

The Transportation Concept Report is the Caltrans' long range planning document for an individual route corridor. The TCR (1) evaluates current and projected conditions of the transportation corridor for a given State Route, (2) considers the overall context of the facility including, but not limited to the physical and community context, (3) establishes a twenty-year planning vision or concept, and (4) recommends performance indicators for managing, operating, improving the State Highway System across all modes and jurisdictions. The TCR considers strategies from long-range plans prepared by local Regional Transportation Planning Agencies (RTPAs) and Metropolitan Planning Organizations (MPOs). The TCR also identifies major alternatives for accommodating demand within the state highway corridor. State highway corridors sometimes pass through several regional planning agency jurisdictions. When this is the case, the District-level TCR consolidates numerous regional strategies into a single comprehensive, internally consistent, corridor-specific document.

A TCR reflects the plans of the Regional Transportation Planning Agency (RTPA) for managing local and regional travel demand on the state route. Caltrans is charged with the responsibility of ensuring the highways provide for safe and reasonable interregional traffic flow, continuity, and efficient goods movement in order to sustain the State's economy. Caltrans will need to balance local concerns and a statewide perspective for interregional mobility. Partnership between transportation agencies and land use planning agencies will be required. Transportation and land use planning will develop intermodal solutions, new technologies, and support the relationships among providers of transportation services and facilities [e.g., the Department, RTPAs, and Metropolitan Planning Organizations (MPOs), and transit operators].

¹ The purpose and scope of the TSDP and DSMP are described in Appendix A: Definitions, Acronyms, and Abbreviations.

The TCR incorporates information from the RTPs adopted by the RTPAs and General Plans adopted by the cities and county. Caltrans anticipates that as planning partnerships evolve and new incentives and commitments are developed to enhance the attractiveness and effectiveness of transit, Transportation Demand Management measures, and new land use patterns, these changes will be reflected in future Transportation Concept Reports. Promising new tools of analysis including updated traffic modeling capabilities and Geographical Information System (GIS) mapping will also support integrated multi-modal planning. District 5 will work with local agencies to develop comprehensive, all-inclusive approaches to reducing congestion, improving safety, and increasing mobility.

The improvements identified in a TCR are not necessarily tied to a funding source, nor does the document project future funding scenarios. Collectively, TCRs provide the basis for developing the TSDP and the State Transportation Improvement Program (STIP), which do address funding availability and are project specific.

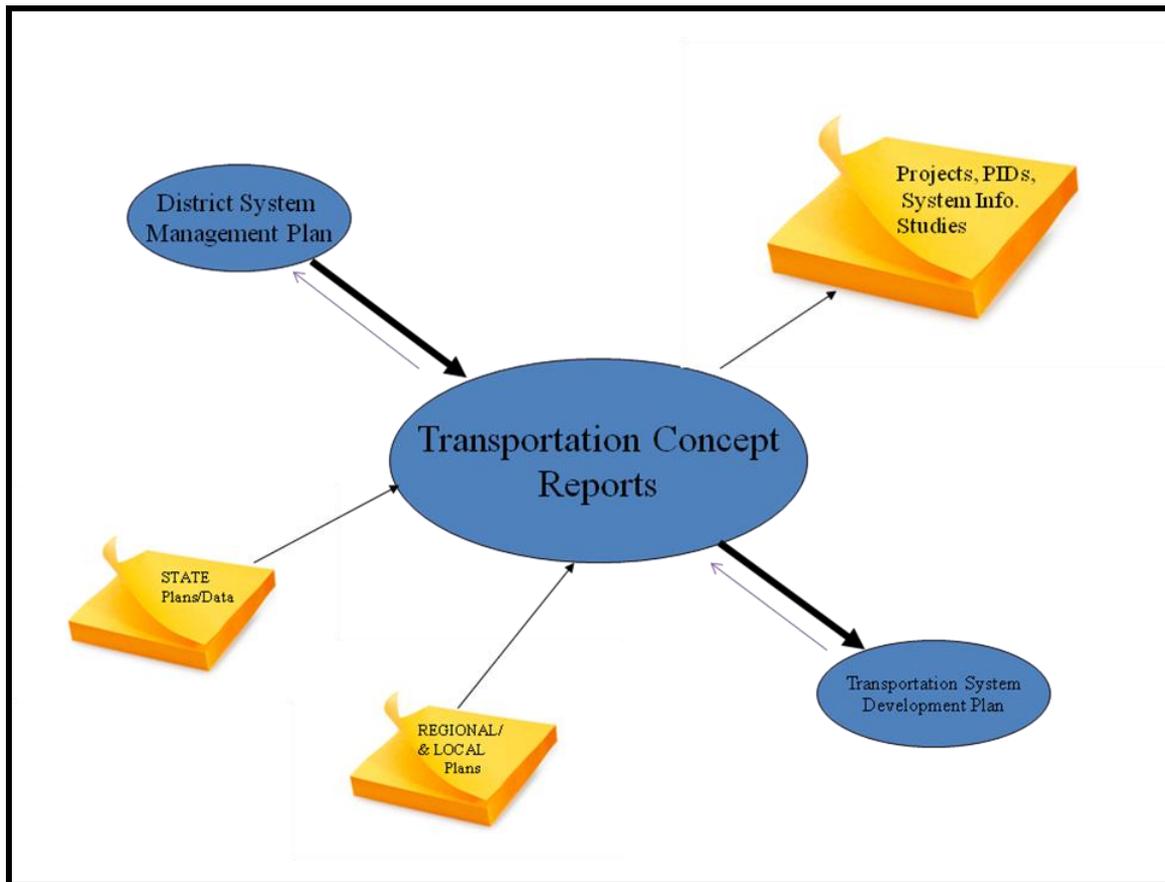


Figure 1.1 TCR Planning Process

A TCR is the culmination of an integrated effort among various stakeholders. **Figure 1.1** represents the interdisciplinary planning effort involved in generating a TCR and how it serves in the project identification process. A TCR is one of the methods for identifying transportation needs. As the illustration shows, several source documents including the TCR and Regional Transportation Plans (RTPs) can lead to identifying these transportation needs. As TCRs and RTPs are updated they should be consistent in addressing these needs, reflecting community input and interagency cooperation. The purpose of the integrated process is to involve affected key players in attaining a general consensus on the direction of transportation improvements in a given area. Ideally, the goal is to balance local, regional, and interregional needs. Although the TCR does not function as a programming tool for transportation projects, it does serve as a starting point for transportation infrastructure improvements. An initial Project Study Report (PSR) evaluates the feasibility of alternatives to achieve the desired transportation improvements. The PSR then translates broad improvement planning concepts and planning scopes into project level detail.

1.2 Relationship to Other Plans

1.2.1 State Planning

The TCR approach is consistent with the goals and objectives of the Governor’s Strategic Growth Plan, which among other things commits to minimizing increases in traffic congestion. Key elements of the strategy are illustrated in **Figure 1.2**.

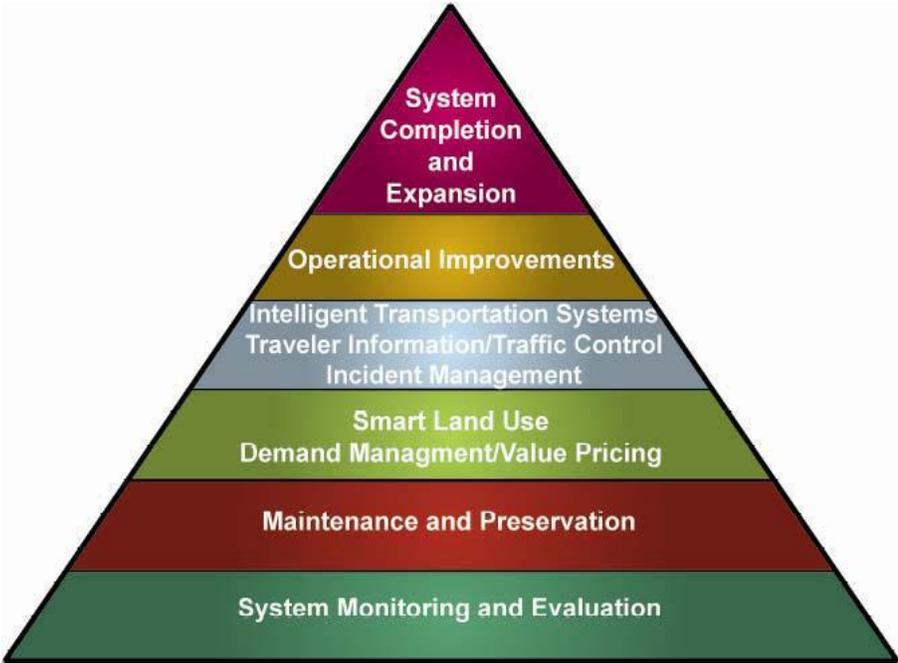


FIGURE 1.2 STRATEGIC GROWTH PYRAMID

At the base of the pyramid, and the foundation of transportation system management, is system monitoring and evaluation. It is essential to understand what is happening on the transportation system so that the best decisions can be made based on reliable data. The next few layers up the pyramid are focused on making the best use of existing resources and reducing the demand for new transportation facilities, particularly for peak hour travel. The top layer of the pyramid is system expansion. This layer assumes that all the underlying components are being addressed and that system capacity expansion investments are necessary.

In addition to the Governor’s Strategic Growth Plan, there are a number of state planning documents that have been used as the foundation for the preparation of this TCR. Baseline analysis and state system components were identified and defined using planning documents prepared by Caltrans, which include the *California Transportation Plan (CTP)*, the *Interregional Transportation Strategic Plan (ITSP)*, and the *Caltrans District 5 District System Management Plan (DSMP)*.

The projects shown below in **Table 1.1** identify the planned and/or programmed projects that the Department currently listed in the District 5 Status of Projects (June, 2010).

Table 1.1 Current Projects--Programmed and Planned

Post Miles	Location	Description	Status
PM 8.1	SB 154/246 Intersection	Intersection Improvements	Candidate
PM 22.9-3.1	Cold Spring Arch Bridge	Construct Bridge Barrier	Construction

Source: June 2010 Status of Projects, Caltrans

1.2.2 Regional Planning

The *2008 Regional Transportation Plan*, adopted by SBCAG in October, 2009, is the current regional plan that applies to the SR 154 Corridor. It contains the following policy:

Policy 2.3 State Route 154, a state-designated scenic highway, shall not be expanded to provide more than two through lanes, with the exception of passing lanes where appropriate.

This is consistent with the Transportation Corridor Concept contained in this Transportation Concept Report. SBCAG has completed two phases of operational improvement projects on SR 154, significantly improving safety and operations. There are no plans in the current measure to continue with any further improvements.

1.2.3 Local Planning

The most pertinent local plans that affect the route are discussed in Section 2.2.2, Land Use Planning, and include the General Plans for the Santa Ynez valley portion of the county of Santa Barbara and the city of Santa Barbara. Neither call for intensive development along the corridor.

1.3 Organization of the SR 154 Transportation Concept Report

This TCR is based on technical information that is divided into four chapters:

Chapter 1: Provides an overview of the transportation concept planning process.

Chapter 2: This section provides route purpose, characteristics, designations and classifications, area description and trends, and corridor concerns. This section also lays out SR 154 segmentation, which is used for analytical purposes during the Corridor Analysis section.

Chapter 3: This section looks at the present and future operating conditions for SR 154 segments. Environmental resources and issues details are also provided. This section then introduces the Transportation Concept for each of the segments, along with strategies to achieve the concept.

Chapter 4: This section provides a concept for managing, operating, improving and preserving the corridor. This includes sections on programming concept facilities, goods movement, consideration of alternatives, the land use and transportation connection, and context-sensitive solutions.

Appendices: Additional route details and background information is included in the Appendices section as indicated in the Table of Contents.

Chapter 2 Corridor & Transportation System Characteristics

2.1 Corridor Description

SR 154 in Santa Barbara County is approximately 32.8 miles long. The route varies from a 2-lane conventional highway to a 4-lane freeway (Refer to Appendix C for more detail). It begins in rolling hills, travels through the flatter Santa Ynez valley, an agricultural area, and skirts the southern edge of Lake Cachuma as it climbs through the mountains. Views of the mountains behind the lake are part of the San Rafael Wilderness Area. San Marcos Pass and several miles either side of the pass are part of the Los Padres National Forest. Climbing through this mountain pass, the winding road descends to the city of Santa Barbara. It is a designated State Scenic Highway, and the most direct commute to Santa Barbara from many population centers in northern Santa Barbara County.

SR 154 accommodates regional and interregional traffic, including commercial and agricultural trucking, tourist/recreational and business-commuter traffic. Users of the corridor represent a wide array of trip purposes. Common personal mobility purposes related to tourism, business, government, recreation, and daily living, including the journey-to-work, account for a high percentage of trips. The corridor also accommodates goods movement primarily related to agriculture/ranching, with other shipping of gravel and consumer products.

Historical and archaeological resources exist throughout the Santa Ynez valley and surrounding mountains. While the Santa Ynez Band of Chumash Indians' reservation was only established in 1901, the Tribe has lived along the California coast for the past 13,000 years. Any project considerations must be sensitive to the potential of finding artifacts anywhere in this region.

2.1.1 Route Segments

SR 154 has been divided into three segments, all of which were further divided into sub-segments (**Table 2.1**). The segments and sub-segments were developed based on urban boundaries, changes in functional classification, significant changes in terrain, and changes in the function or use of the route. The segments are defined by post-mile measures and by commonly identifiable jurisdictional boundaries or landmarks.

The segments and sub-segments are the basic units of observation and the route concept is based on the technical analysis of delay, Volume/Capacity Ratios, travel volumes, forecasts, and collision rates determined along each segment. Segment maps and individual data sheets with technical descriptions for each of the five sub-segments are included in Appendix C.

Table 2.1 State Route 154 Segment Summary

SEG #	SUB-SEG	BEGIN POSTMILE	END POSTMILE	SECTION BEGIN	SECTION END	TOTAL. MI.
1	1A	0.015*	R2.386	North Junction US 101	Foxen Canyon Road	2.37
	1B	R2.386	R8.110	Foxen Canyon Road	SR 246	5.72
2	2A	R8.110	14.77	Junction with SR 246	Lake Cachuma County Park	6.66
	2B	14.77	23.38	Lake Cachuma County Park	Stagecoach Road	8.61
3	3A	23.38	R31.550	Stagecoach Road	Junction SR 192 (Foothill/Cathedral Oaks)	8.17
	3B	R31.55	32.29	Junction SR 192	South Junction 101	0.74
	3C	32.29	32.84	South Junction 101	State Street, Santa Barbara	0.55

* Total miles adjusted for revisions in route (R= First Realignment)

Segment 1 (PM 0.02 to PM R8.11)

Segment 1 of SR 154 begins at the northern junction with US 101, and travels southeast for approximately 8.1 miles through rolling hills and ending at the SR 154/246 junction. This segment connects the north junction of US 101 with the communities of Los Olivos and Ballard. Foxen Canyon road separates the 1A segment from the community and agricultural uses of Segment 1B. The roadway is a combination of conventional highway and expressway, with variable shoulders 0-8 feet wide. Lane widths are 11' to 12' wide in a Right of Way that varies between 100 and 150 feet wide.

Subsegment 1A, passes through open space and scenic wooded hills and ends at Foxen Canyon Road. The terrain is rolling hills, and this portion, along with the entire route, is a scenic highway.

Subsection 1B passes through Los Olivos and surrounding farmland, ending at the junction of SR 246 and SR 154. The terrain is essentially flat. The Subsegment begins at the first intersection of Los Olivos, and continues through the town.

Segment 2 (PM R8.11 to PM R23.38)

Segment 2 begins at the junction with SR 246 and continues traveling southeast relatively straight toward Santa Barbara, ending at the junction of Stagecoach Road that is just southeast of Cold Spring Arch Bridge. This segment is approximately 15.3 miles long and winds through areas of open space and farmland, past the scenic views of Lake Cachuma Recreational Area, ending at Stagecoach Road. This segment is classified as a 2-lane conventional highway.

Subsegment 2A starts at the SR 246/154 junction and ends at the turnoff to Lake Cachuma Recreational Area. It is a two lane conventional highway.

Subsegment 2B is characterized by rolling hills at the beginning transitioning to mountainous terrain for most of the segment.

Segment 3 (PM 23.38 to PMR31.53)

Segment 3 begins at Stagecoach Road near Cold Spring Arch Bridge and continues traveling southeast, winding over the San Marcos Pass into Santa Barbara and terminating at State Street/US 101 in the city of Santa Barbara. The third segment is also hilly and curvy. Rural properties abut the route, and the rugged terrain restricts agricultural uses. This segment terminates in the city of Santa Barbara, with a direct ramp for the southbound US 101 on ramp, and the other ramps connecting from State Street or Calle Real.

Subsegment 3B is defined by the intersection of SR 192 (Cathedral Oaks/Foothill Road, near the city limit) and the intersection with Calle Real just before reaching US 101. This sub-segment lies partly inside the city limits of Santa Barbara, which begins just south of the SR 154/192 junction. The entire segment is access-controlled (bicycles and pedestrians not allowed), has shoulders greater than eight feet wide, is classified as an freeway, and serves as a principal arterial.

Subsegment 3C is located within the city limits of Santa Barbara. It begins at the intersection of State Street and the US 101 northbound off-ramp for US 101 at exit 101B (Calle Real) and ends at the intersection of Calle Real and SR 154 (San Marcos Pass). It is a two lane conventional roadway, with 0-5 foot shoulders and serves as a principal arterial and city street, Calle Real.

State Route 154: Segment 1 (PM 0.02/R8.11)

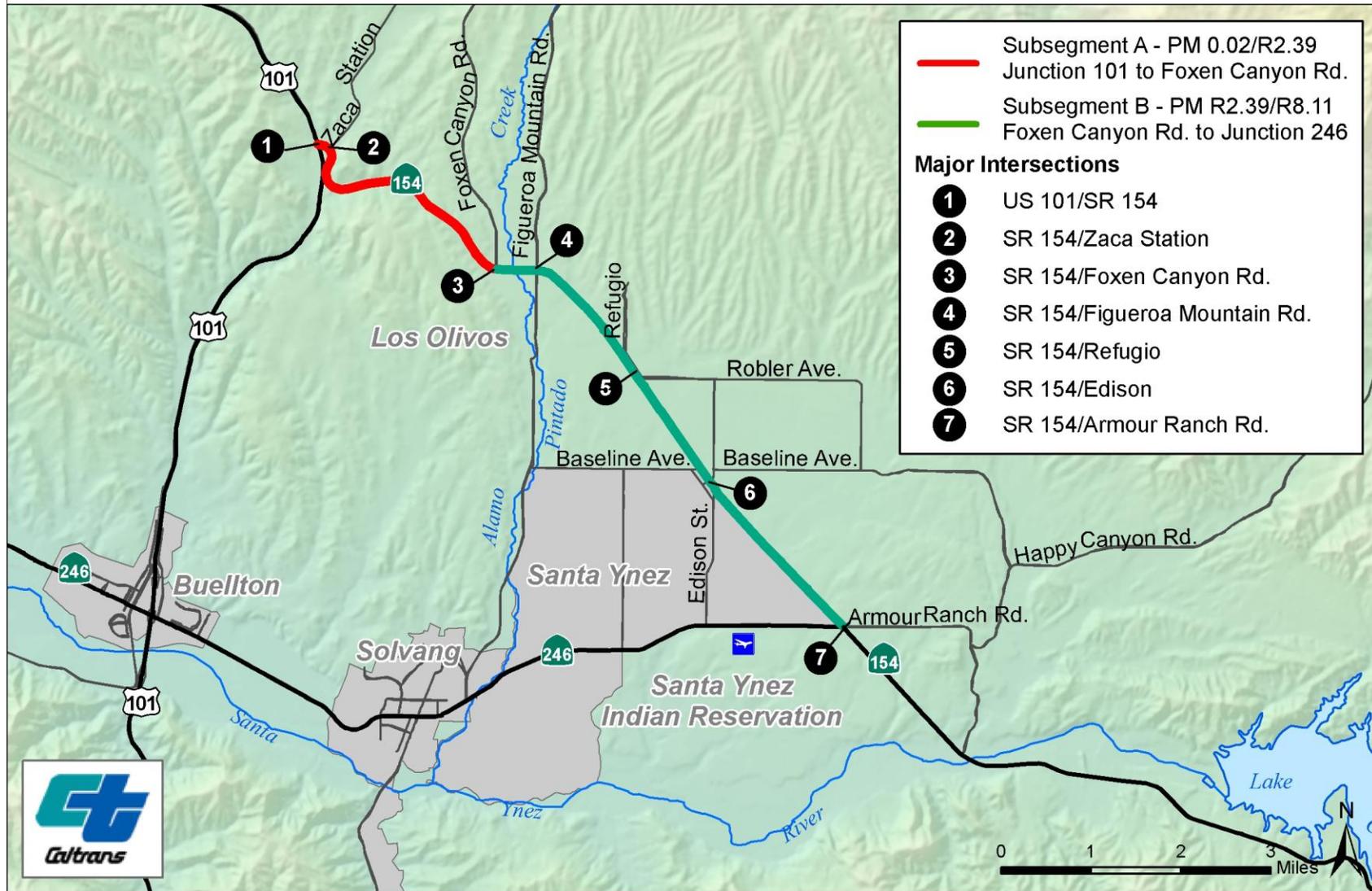


FIGURE 2.2 MAPPING OF SEGMENT 1

State Route 154: Segment 2 (PM R8.11/23.38)

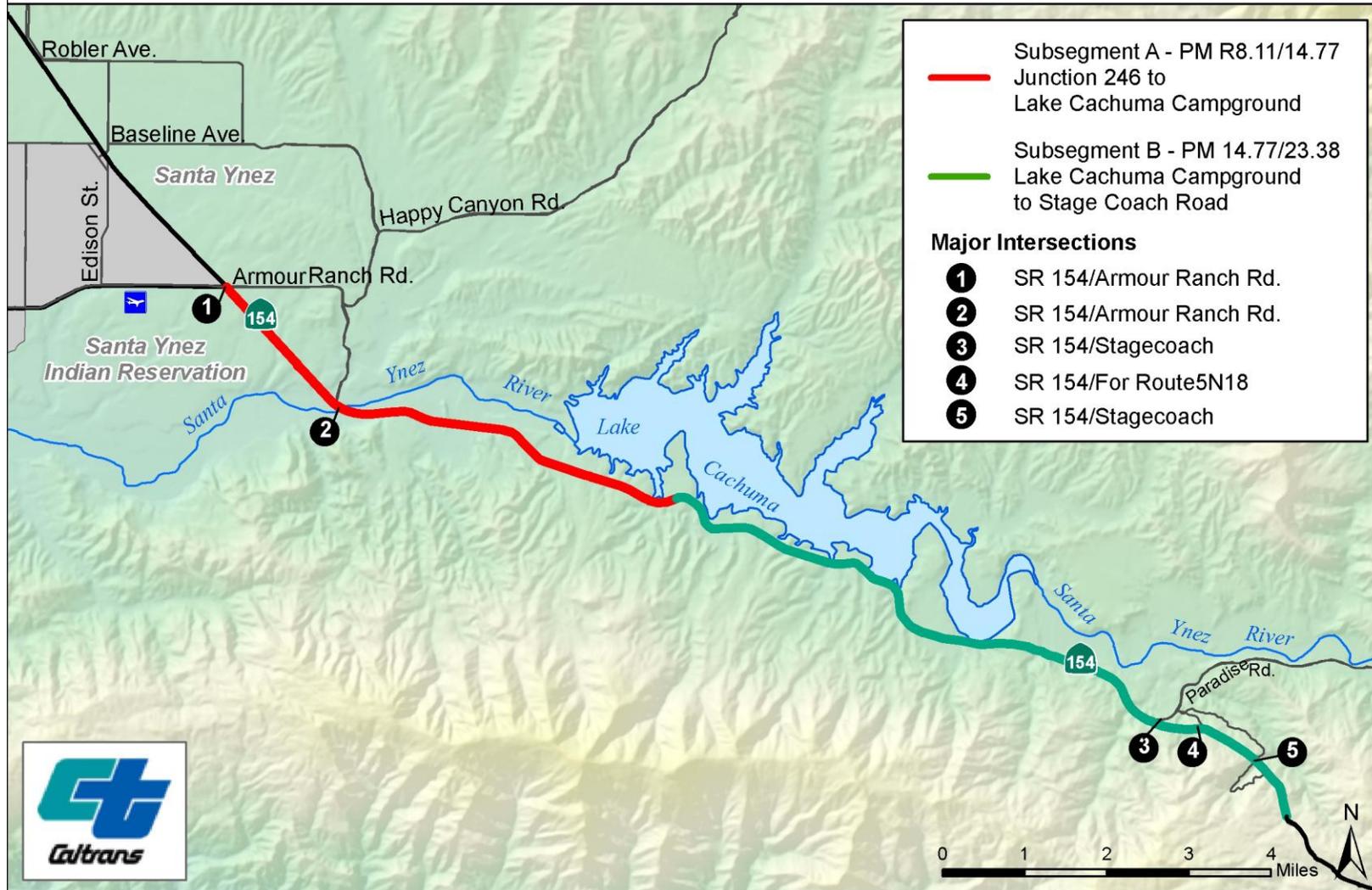


FIGURE 2.3 MAPPING OF SEGMENT 2

State Route 154: Segment 3 (PM 23.38/32.84)

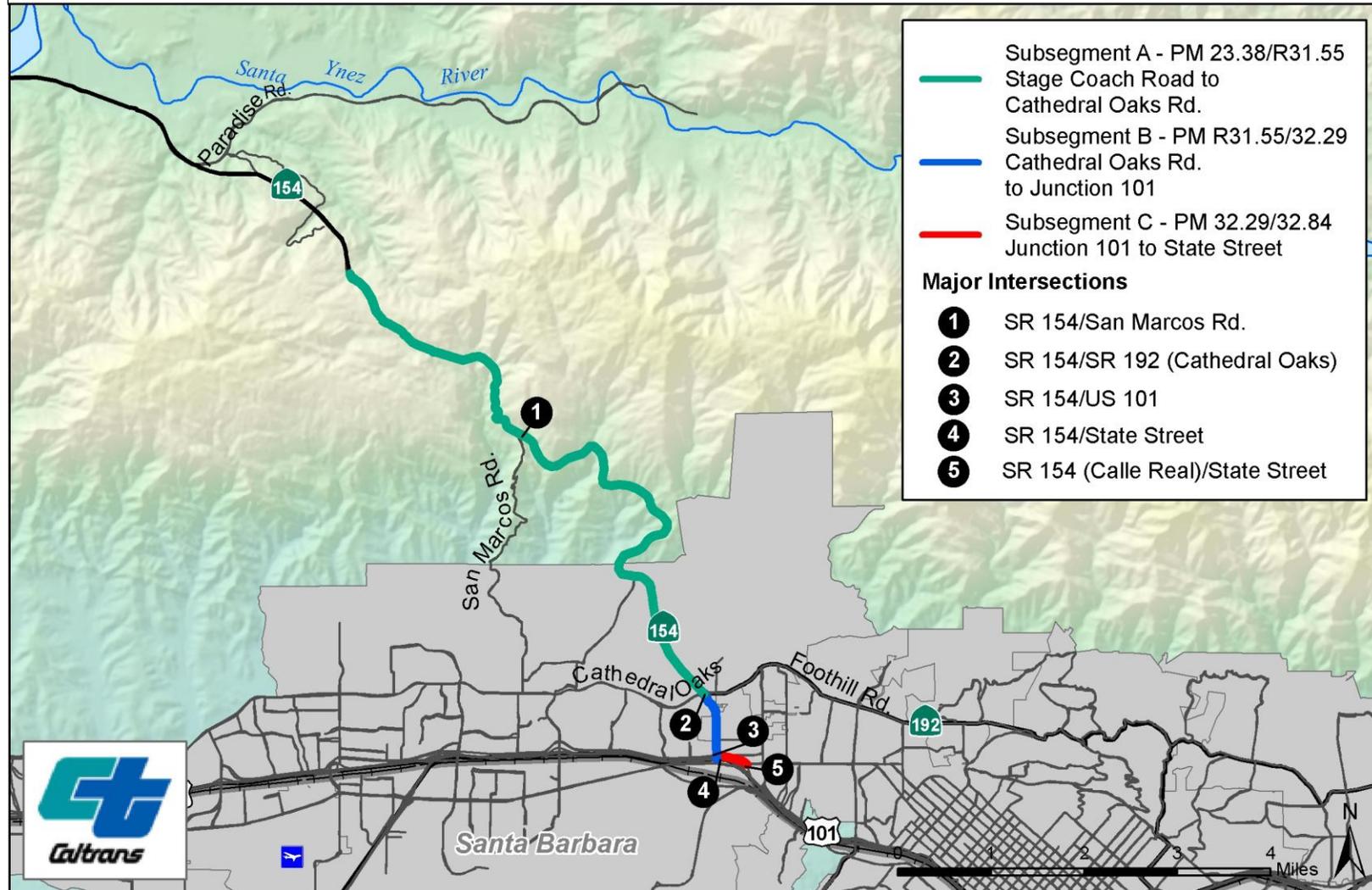


FIGURE 2.4 MAPPING OF SEGMENT 3

2.1.2 Freeway Agreements

The following are freeway agreements and maintenance agreements for portions of the SR 154 corridor. Several reference CTC findings that segments of SR 154 are designated Freeway, and these agreements may need amendment if any re-designation is to take place.

Table 2.2 SR 154 Freeway and Maintenance Agreements		
Date	Agreement Number	Contents
4/12/88	5-SB-154-31.82 [Maintenance]	Primavera/154 Undercrossing. Provides for maintenance of Primavera Road—City of Santa Barbara maintains and landscapes city streets. State responsible for structure, ramps. Roadway surface and sidewalks and graffiti are City responsibility.
9/13/88	5-SB-154-R32.07 [Maintenance]	La Colima/154 Undercrossing. Provides same language as R31.82 applied to La Colima Undercrossing.
9/16/85	5-SB-154-0.0/R3.1 [Freeway Agreement]	Amends Freeway Agreement with the County, noting CTC resolution finding SR 154 segments to be Freeway status (6/23/58). County agrees to close roads, relocate county roads and construct frontage roads per plan map.
9/16/68	Number unavailable [Freeway Agreement]	Supercedes County Freeway Agreement 1/29/68, setting new limits at 0.2 miles south of San Antonio Creek and the southern junction of SR145 and US 101.
1/2/68	05-SB-154-31.8-32.1 [Freeway Agreement]	Supercedes SB City Freeway Agreement 10/29/59, setting new limits at the Northern and Southern City Limits (roughly Primavera to La Colima Roads).
1/20/64	V-SB-80-C,B [Freeway Agreement]	Supercedes Freeway Agreement 2/17/58 only in map, extending limits from southern junction with US 101 and Forest Boundary, 2 miles west of Hot Springs Road (County of Santa Barbara).
1/30/61	Number unavailable [Freeway Agreement]	Amends Freeway Agreement with the County on freeway status for segment from E 101 junction to 2 mi E. of Santa Ynez River. County agrees to close roads, relocate county roads and construct frontage roads per plan map.
10/29/59	V-SB-80-SB [Freeway Agreement]	Establishes freeway status for section of SR 154 within Santa Barbara City Limits (City of SB).
2/17/58	V-SB-80-C,B [Freeway Agreement]	Freeway Agreement between County and State regarding current alignment between San Marcos Pass and 2 miles west of Hot Springs Canyon. Notes two-lane, ultimately a four-lane expressway.
6/23/58	Original CTC Resolution	Set the expressway/freeway finding for SR154.

2.1.3 Route Designations

The following designations and classifications provide information regarding the facility itself and its intended use. They also indicate the availability of special purpose funding related to the designation.

The Federal functional classification of most of SR 154 is Minor Arterial. This classification recognizes trip lengths and travel densities that are indicative of substantial travel as SR 154 serves as an alternate route between the Santa Ynez valley and the South Coast cities of Santa Barbara County. Entering the metropolitan area of the city of Santa Barbara, the last three miles of the route at the eastern end (PM 29.73 to PM 32.84) are designated Principal Arterial.

SR 154 is on the Interregional Road System (IRRS). The advantage of this designation is that proposed projects on the route can compete for the portion of the State Transportation Improvement Plan (STIP) funds controlled by the Department as interregional funds. However, it is not designated as a Focus Route in the Department's Interregional Transportation Strategic Plan (ITSP).

SR 154 is not part of the National Highway System (NHS) as identified in the federal Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The route is neither a designated route on the National Truck Network (NTN) under the federal Surface Transportation Assistance Act (STAA) nor a State Highway Extra Legal Load (SHELL) Route, although the portion from PM 0 to PM 10 (Santa Agueda Creek Road) is classed for Terminal Access. The portion of SR 154 from the SR 246 intersection to the southern US 101 junction restricts the transportation of hazardous waste.

2.1.4 Environmental Setting

The purpose of this section is to provide a broad overview of environmental resources and issues to be considered in planning for appropriate transportation facilities along the SR 154 corridor in Santa Barbara County. Detailed analysis of environmental concerns and constraints are evaluated in the project development stage. Potential project-related impacts to scenic, biological, archaeological, cultural and historical resources must be evaluated in compliance with the California Environmental Quality Act (CEQA) and, if federal funds are involved, the National Environmental Policy Act (NEPA), for a project proposing changes to Route 154. Environmental compliance could require a complete assessment of environmental impacts through a detailed resources study, further investigation, and/or redesign of the project or mitigation of impacts.

Scenic and Aesthetic Resources

All of the communities along the SR 154 corridor have land use plans that highlight their special pride in their natural and scenic surroundings and their wish to protect them. The various segments of SR 154 offer a rich variety of rural views of oak woodlands, rolling hills, mountains, lake and ocean views, farmlands, ranches and open space. The small community of Los Olivos treats the route as one of their “Main Streets” and is proud and protective of the rural feel of the streetscape. Any highway improvements must take into consideration impacts on these resources.

SR 154 was officially designated a State Scenic Highway on November 22, 1968. Official scenic highway status places no restrictions for making improvements on scenic highways. However, Caltrans works with appropriate agencies to coordinate transportation proposals and maintenance activities and to ensure the protection of scenic corridors to the maximum extent feasible. Caltrans manuals refer only to scenic vista points, noting that vista points on scenic highways should be given special consideration. The California Code section that established Scenic Highways designation noted legislative intent to take into consideration the “complete highway”, defining this as including a pleasing appearance as well as safety, utility and economy (Streets and Highways Code, Section 261).

Cultural Resources

The Route 154 corridor travels through areas of sensitivity for cultural resources, and has recently been designated “Chumash Highway” (September, 2007, ACR 75). Numerous prehistoric archaeological sites have been documented along the highway, as well as several historic-period cultural resources.

Biological Resources

The land use in the vicinity of Los Olivos and Santa Ynez is primarily rural residential and farmlands used for intensive agricultural activities as well as some commercial development. As the corridor leaves the valley floor the land use changes to large ranches used for horse and cattle grazing, and recreational use associated with Cachuma Lake Recreation Area. Although the corridor has been greatly altered, there is still the potential for sensitive biological resources, especially in and around Lake Cachuma and major drainages such as the Alamo Pintado Creek, The Santa Ynez River, Hilton Creek, San Jose Creek, Maria Ignacio Creek, San Antonio Creek, and other lesser creeks and streams.

Listed below are some of the environmental issues subsections may pose based on plant community type and waterways present in each subsection. There is the potential for special-status plants and animals to occur along the highway corridor at various locations. State and/or federally protected animals include, but may not limited to, California red-legged frog, Southern California steelhead, fairy shrimp, and American badger. Special-status plants include but, may not limited to, Santa Barbara honeysuckle, late-flowered Mariposa lily and mesa horkelia. In addition, wetlands may also occur at various locations along the corridor.

Segment 1A PM 0.015/R2.386

- Segment passes through primarily Oak Savannah habitat

Segment 1B PM R2.386/R8.110

- Segment passes through primarily Oak Savannah habitat
- Alamo Pintado Creek, and lesser drainages

Segment 2A PM 8.11.0/14.770

- Segment passes through primarily Oak Savannah and Coast Live Oak Woodland
- Santa Ynez River and along the southerly side of Lake Cachuma and over Hilton Creek

Segment 2B PM 14.770/23.380

- Segment passes through primarily Coast Live Oak Woodland and Chaparral
- Cold Spring Arch Canyon drainage system

Segment 3A PM 23.280/R32.840

- Segment passes through Chaparral with riparian woodlands in the drainages
- San Jose Creek, Maria Ygnacio Creek, and Atascadero Creek

Segment 3B PM R31.55/32.290

- Segment passes through an urban area

Segment 3C PM 32.290/32.840

- Segment passes through an urban area

Appendix D shows a map of the Environmental Resources found within a two-mile proximity of State Route 154. The map was generated using California Department of Fish and Game's California Natural Diversity Database, October 2006. It is a list of species that may occur within a two-mile radius but does not necessarily occur within the State right of way.

Air Quality

The 2010 Clean Air Plan (CAP) prepared by the Santa Barbara County Air Pollution Control District noted that air quality in Santa Barbara County continues to improve and 2009 was one of the cleanest years on record. The number of days exceeding the state 1-hour ozone standards has been reduced by 89% from 1988 to 2009, and the number of days exceeding the state 8-hour ozone standards has been reduced by 90% from 1988 to 2009 despite substantial increases in population and vehicle miles traveled. In fact, the County is in attainment for both the federal 8-hour ozone standard and the state 1-hour ozone standard. However, the County has yet to attain the state 8-hour ozone standard.

Noise

Any proposal on SR 154 that will change either the horizontal or vertical alignment or increase the number of through traffic lanes will require analysis of potential noise impacts. If it is determined through the noise analysis that significant impacts may result, mitigation measures may be required. Typical noise mitigation measures include barriers such as earthen berms and sound walls. Sensitive receptors such as residences, schools and hospitals must be present for long-term, highway-related noise impacts to occur. Much of SR 154 passes through rural areas with few receptors. The potential for noise impacts will increase in the more developed areas (between SR 192 and the southern SR 154/101 interchange and in the Los Olivos area).

Water Quality

SR 154 is located within the Central Coast Regional Water Quality Control Board's (RWQCB) jurisdiction. The design and construction of road projects must adhere to the requirements found in the Caltrans National Pollutant Discharge Elimination System (NPDES) permit (Order No. 99-06-DWQ, No. CAS000003), the *Caltrans Storm Water Management Plan (SWMP)*, the *Caltrans Project Planning and Design Guide*, the *Construction Site Best Management Practices Manual*, and *Caltrans Standard Specifications*.

Hazardous Materials

A hazardous material is any substance, including waste, which may result in adverse effects to health, safety, and the environment. Caltrans policy is to manage a hazardous materials program to protect its activities, employees, the public, and the environment from the injurious effects of hazardous materials and waste. Any proposed project on SR 154 will include an assessment during the planning phase of the potential to encounter hazardous materials. When hazardous materials are found, Caltrans policy is to avoid or fully mitigate these materials prior to construction.

In response to a recent CHP ordinance (Appendix F), Caltrans changed its policy regarding the transportation of hazardous waste and hazardous material on SR 154. The previous policy stated that hazardous waste was prohibited on SR 154 between the junction of SR 246/SR 154 and the junction of US 101/SR 154 in Santa Barbara. The new policy retains the former geographic restrictions but is expanded to include the transportation of all hazardous material. Considering that the junction of US 101/SR 154 in Santa Barbara can refer to multiple locations, in this context, hazardous material is permitted on the portion of Calle Real between the northbound US 101 off-ramp and SR 154 (San Marcos Pass). The first sign prohibiting hazardous material does not occur until the junction of SR 192 and SR 154 which further serves as the final "turnaround" location for trucks that accidentally get onto SR 154 in Santa Barbara.

2.2 Community Characteristics

One city and numerous unincorporated communities lie adjacent to or are served by the SR 154 corridor.

2.2.1 Cities, Unincorporated Communities

According to the 2010 US Census, 1,132 people live in and near Los Olivos, an unincorporated community along the eastern third of SR 154, making the community the most significant population center at the western end of the route. The town is similar to other small communities in the area, with most residents living on farms surrounding the town. The town was founded in 1861, and had service from stagecoaches and the Pacific Railway. One of the oldest restaurants in town, Mattei's Tavern, was originally a stagecoach stop. Los Olivos is known for its vineyards, wineries and tasting rooms, which have a national and international draw. Most of SR 154 was created on the stagecoach trail alignment, as this was originally the principal corridor north from the city of Santa Barbara.

The following communities do not directly lie on SR 154, but make up the Santa Ynez valley, with a population exceeding 14,500. Residents rightly feel that SR 154 is a vital arterial for the entire valley, and are interested in future plans for the corridor. By 2030, the population may increase by 6,000 residents, and require up to 1,900 new housing units for their accommodation (Land and Population: 2030, County of Santa Barbara). Growth pressures will put increased loads on all of the valley's arterials, which include SR 154, SR 246 and US 101.

Ballard is a very small community of several hundred residents, just south of Los Olivos. It surrounds the intersection of Baseline Avenue and Alamo Pintado Road, both of which connect directly with SR 154. The Alamo Pintado creek corridor is predicted to feel urban growth pressure in the coming years.

The City of Buellton was incorporated in 1992 and is bisected by US 101. Accordingly to the 2010 US Census, the current population is approximately 4,828 and is projected by SBCAG to grow to 5,800 by 2020. Buellton is strategically located as the gateway to the Santa Ynez and Lompoc Valleys. Although Avenue of Flags has been the main street of Buellton since US 101 was moved to its current location in the early 1960's, SR 246 handles the majority of the connecting traffic.

The City of Solvang was incorporated in 1985 and is located approximately 2 miles to the east of Buellton along SR 246. According to the 2010 US Census, the current population is 5,245 and is projected by SBCAG to grow to 6,400 by 2020. Solvang is a unique tourist destination that promotes itself as the "Danish Capital of America" where "quaint Old World architectural styles blend with flower-lined streets to create a walkable village." Solvang has been recognized as one of the 10 Most Beautiful Small Towns in the Western United States by *Sunset Magazine*. During the peak summer tourist season as many as 5,000 people visit Solvang daily. Within the city limits lies the Santa Inés Mission, which was founded in 1804.

Santa Ynez lies further to the east along SR 246, just before the route terminates at SR 154. The total population is under 5,000 and the community is unincorporated. Of special interest are two specific traffic generators, the Santa Ynez valley Union High School and the Chumash Tribal Reservation with its gaming facility. The Santa Ynez valley Union High School draws students from a 1,500 square-mile area and currently has a student population of 1,080 that is projected

to grow to nearly 1,700 by the 2015/2016 school year. The Chumash gaming facility has the maximum number of gaming machines as allowed by the Tribal-State Gaming Compact and has recently renovated their entire facility, including circulation and access modifications suggested by District 5.

The city of Santa Barbara is the eastern terminus of SR 154. It is the county seat of Santa Barbara County, California. As of the 2010 US Census, the city had a total population of 88,410. The metropolitan area, which includes the adjacent cities of Goleta, Carpinteria, as well as the unincorporated communities of Montecito, Summerland, Isla Vista, Hope Ranch, and other adjacent areas, has a population of approximately 200,000.

Santa Barbara is a town that attracts tourists, but it is also a job center for the county, and the jobs/housing ratio indicates many jobs and limited housing. Few can afford the housing prices, particularly those in tourist-related service industries, so the commuters from northern Santa Barbara County will continue to increase. There is a general shortage of housing in Santa Barbara, affecting other income levels as well. One option to get to Santa Barbara is SR 154, so peak hour traffic can be predicted to continue to increase.

2.2.2 Federally Recognized Tribes

The Santa Ynez Band of Chumash is a federally recognized sovereign nation and is estimated to have inhabited the California coast for the past 13,000 years. The Chumash Tribal Reservation is located along the route approximately 2.5 miles east of the Solvang city limits in the community of Santa Ynez. The portion of the route passing the entrance to the casino lies on the Reservation and an existing easement allows the route's current alignment. The original 99-acre Reservation was established in 1901. Since then, two parcels have been added, bringing the total to 128 acres on the south side of the route. Recently, the Tribe has purchased an additional 7 acres on the north side of the route; however, this property remains outside the boundaries of the Reservation until approval by the Bureau of Indian Affairs. The Tribe is currently developing plans for this property. The reservation population is approximately 350.

The tribe opened a bingo hall in 1994. In 1999, the Indian Gaming Regulatory Act (IGRA) established guidelines for Native Americans to establish and run entertainment centers on their tribal lands, and depending on their classification, gaming facilities. Following this Tribal-State Compact, gaming expanded and this provided the Chumash with a financial opportunity to renovate and enlarge their casino facility. As a result of the controversial expansion, the local community expressed their concerns regarding increased traffic and other negative effects on the surrounding area. Some impacts of these changes are being mitigated through the addition of two traffic signals and channelization at the Casino entrance and Edison Street. The Chumash also offer a free shuttle bus service at no cost to the state or their patrons that runs on regular intervals from Santa Barbara/Goleta, Santa Maria and Lompoc areas. This transit alternative is included in the casino's advertising campaigns and diverts many trips daily from single automobiles to 45 passenger motor coaches. In addition to the casino, the Tribe has also moved

and renovated its Tribal Health Clinic. This clinic serves both tribal members and others in the community, offering free medical exams to all children.

Special concerns of the tribe have been expressed regarding culturally important sites that may be disturbed by road projects. Access to the reservation and the casino has been a concern addressed through a partnership between the Chumash Tribe and District 5 to provide needed improvements.

2.2.3 Land Use Planning

A comprehensive view of what the communities of the valley desire for their future is found in *The Valley Blueprint*. This document was completed in 2002 and offers a "collaborative vision for the future of the Santa Ynez valley". It is the result of a joint effort by the six communities in the valley (Ballard, Buellton, the Chumash, Los Olivos, Santa Ynez, and Solvang), county planning, and supervisor staffs. Elements of the document include growth and development, social fabric, agricultural protection, infrastructure and transportation, governance, and economic vitality. The "Infrastructure and Transportation" section of the document focuses on maintaining the rural nature of the existing route, while promoting the public awareness of transportation alternatives such as expanded transit.

The County Planning Department began updating the Santa Ynez valley General Plan in 2001. In this process, then District 3 Supervisor Gail Marshall appointed members of the public to a General Plan Advisory Committee (GPAC) to discuss local issues and policies, and with the assistance of the county planning staff, develop the plan. The group is now known as VPAC (Valley Plan Advisory Committee) and has been involved with the Update. The resulting document, the Santa Ynez Valley Community Plan, was approved by the Santa Barbara County Board of Supervisors October 6, 2009.

The Santa Ynez Valley Community Plan picks up where the Valley Blueprint left off, and is intended to be the implementing document for the vision set in the Blueprint. It was developed with local input through 50+ community meetings, and updates the General Plan to incorporate formal policy issues and direction for development in the valley. Its Circulation Element specifically mentions SR 154 in a number of places, with more general discussions of the multi-agency planning needed to resolve mobility issues. For county road facilities, LOS B defines the limit of Acceptable Capacity, with the ability of projects to contribute toward approved alternative transportation projects or road improvements that offset the traffic increase, as a mechanism to find consistency with the Plan.

Table 2.3 Planned Development Adjacent to the SR 154 Corridor

Development Name	Jurisdiction	Proposed Use	Status
Stage Stop Plaza	Co. of S. Barbara	Mixed Use	N/A
Bee Rock Quarry Expansion	County of Santa Barbara	Quarry Expansion	Current modifications and mitigations completed
Park Hill Estates	County of Santa Barbara	Subdivide, 12 lots	Conditions of approval set 2007
Rancho San Marcos Golf Course Expansion	County of Santa Barbara	Expansion	Land Use Permit issued 2007
Dunn School Master Plan	County of Santa Barbara	Modify Conditional Use Permit	N/A

The Santa Ynez Valley Community Plan was adopted by the County of Santa Barbara October 9, 2009 and contains the best information on land use in the area of SR 154 most likely to see development. In general, the Plan calls for protecting the existing rural nature of the community and preserving agricultural uses. General Plan "Build out" allows for the addition of 1,187 additional residential units in the unincorporated 72 square mile area, which includes Ballard, Los Olivos and Santa Ynez communities. The maps below show the area, rural boundaries and land use.

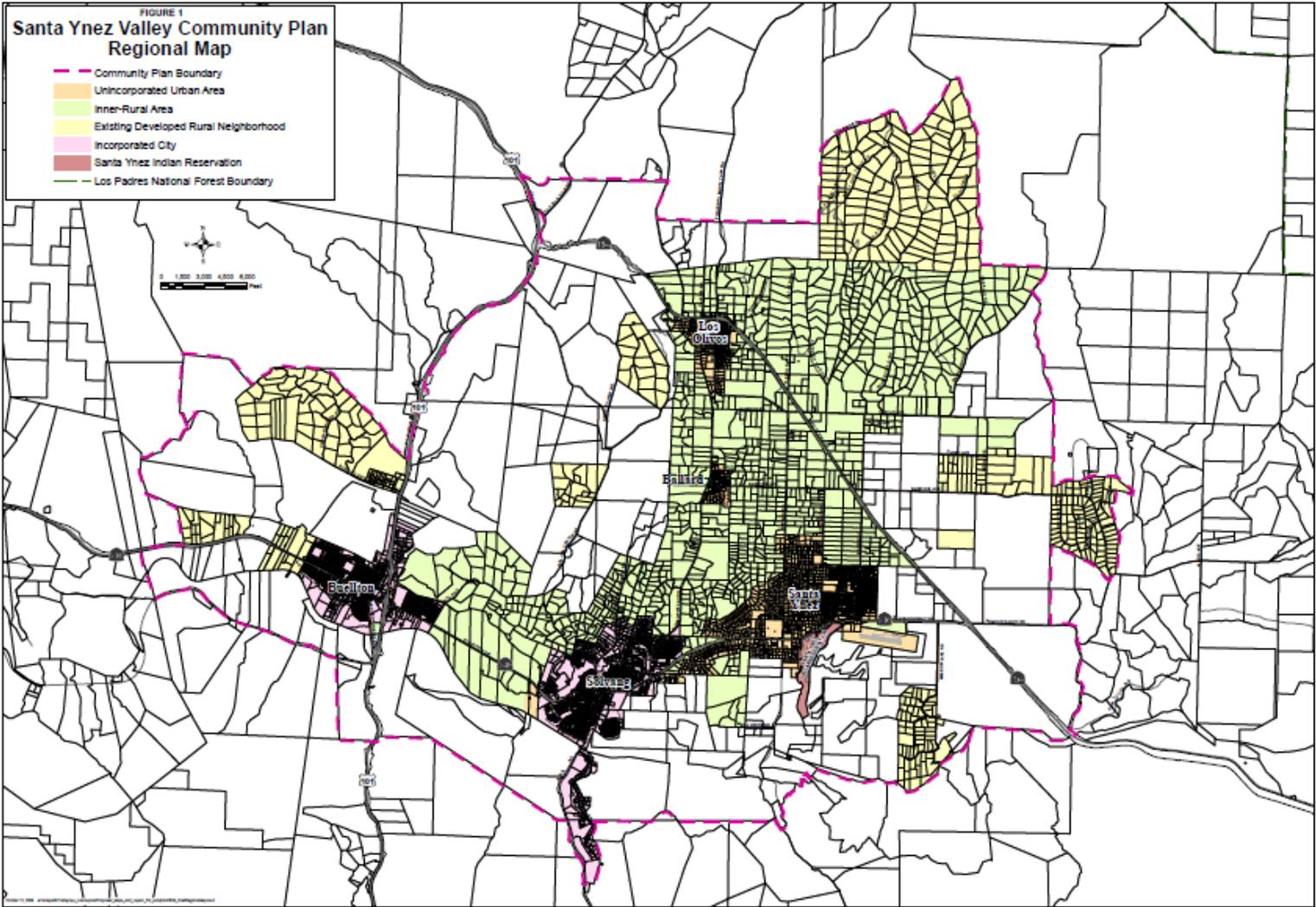


FIGURE 2.5 SANTA YNEZ VALLEY COMMUNITY PLAN REGIONAL MAP

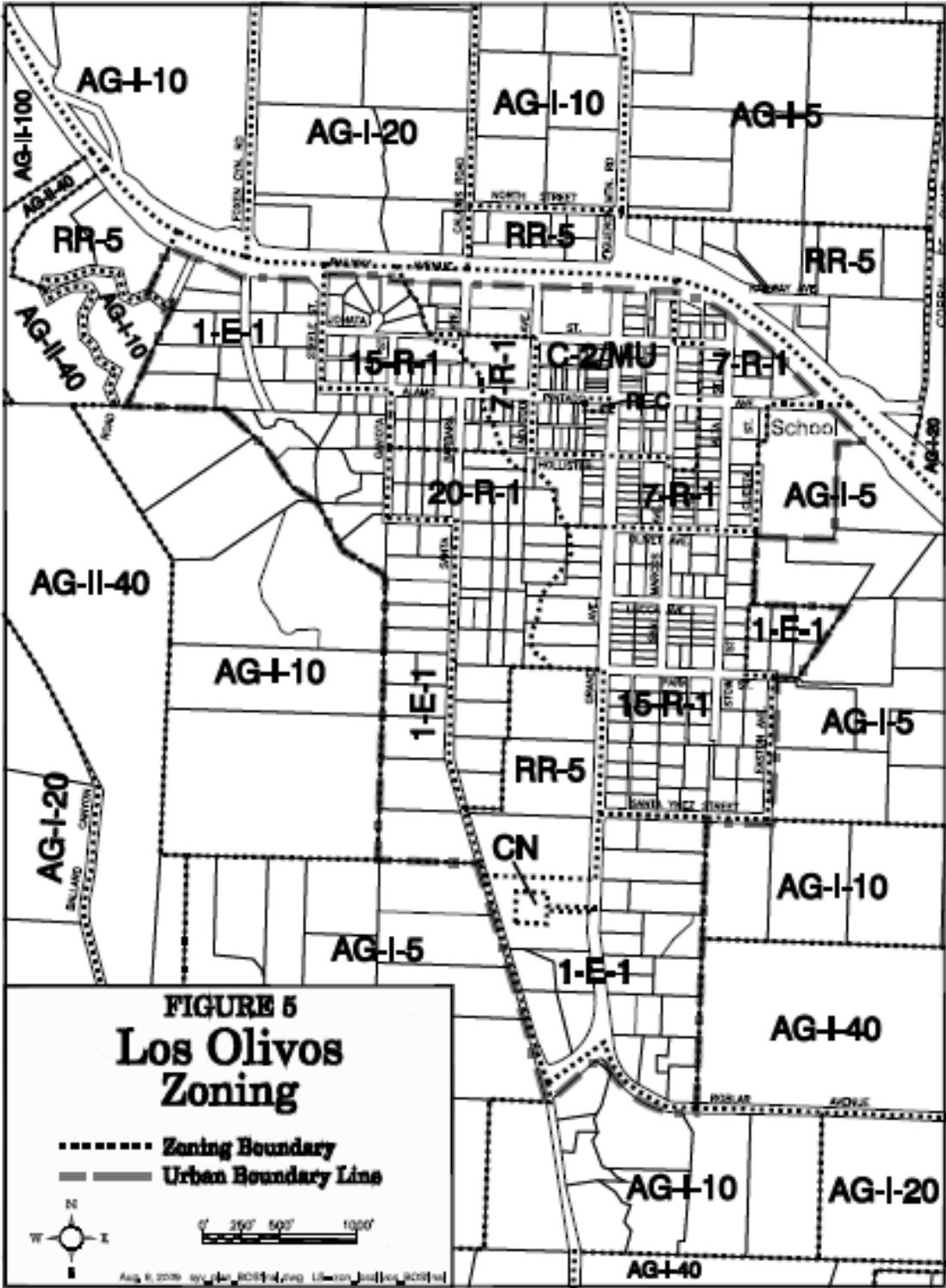


FIGURE 2.6 LOS OLIVOS ZONING MAP

Table 2.4 Los Olivos Township Zoning and Land Use

Zoning	Land Use	Number of Parcels	Acreage
C-2/MU	General Commercial	73	21
CN	Neighborhood Commercial	1	1
3-E-1	Residential 0.33	4	16
1-E-1	Residential 1.0	89	115
20-R-1	Residential 1.8	36	27
15-R-1	Residential 3.3	126	55
7-R-1	Residential 4.6	71	23
RR-5	Residential Ranchette	2	19
AG-1-5	Agriculture (A-1-5/EDU)	1	9
REC	Recreation/Open Space	1	<1
Total		404	286

Source: Santa Barbara County Planning and Development Mapping Division

Table 2.5 Santa Ynez Township Zoning and Land Use

Zoning	Land Use	Number of Parcels	Acreage
C-2	General Commercial	12	15
C-2/MU	General Commercial	71	32
C-3	General Commercial	5	5
M-RP	Industrial	1	7
3-E-1	Residential 0.33	10	30
3-E-1	Residential 1.0	24	50
1-E-1	Residential 1.0	814	864
1-E-1	Residential 1.0/EDU	1	36
20-R-1	Residential 1.8	85	46
10-R-1	Residential 3.3	480	145
10-R-1	Residential 3.3/EDU	2	15
DR-1	Residential 1.0	13	14
10-R-2	Residential 12.3	28	8
MHP	Residential 12.3	1	6
AG-1-5	Agriculture (A-1-5)	8	132
AG-1-5	Institutional/Gov't	1	124
REC	Recreation/Open Space	9	11
Total		1565	1540

Source: Santa Barbara County Planning and Development Mapping Division

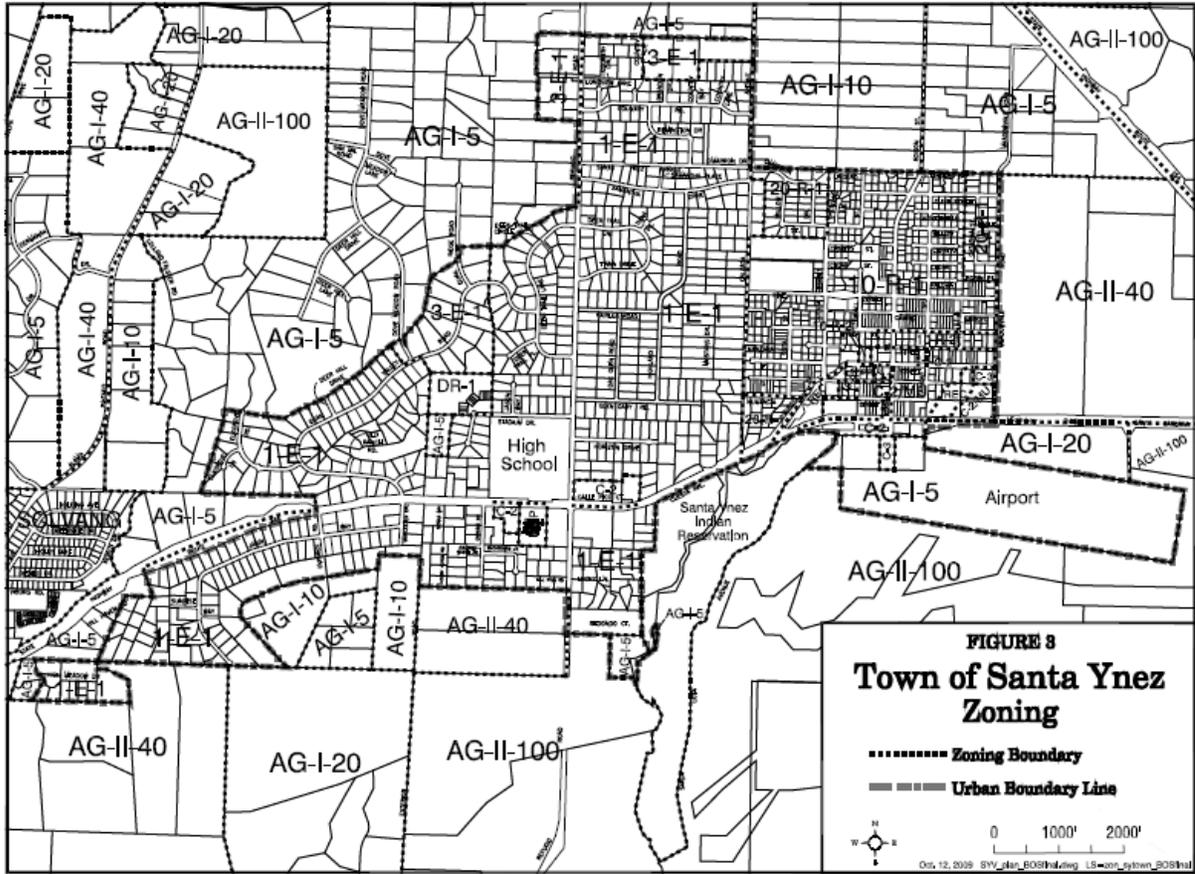


FIGURE 2.7 ZONING MAP FOR SANTA YNEZ

The town of Ballard is not shown due to small size, but the trends are similar with large parcels designated AG (agricultural uses), small R-zoned lots (residential) and few commercial CN (neighborhood commercial) lots.

2.2.4 Demographics

Santa Barbara County includes five distinct centers of development. SR 154 connects two of these, the Santa Ynez valley area and the South Coast communities of Goleta and Santa Barbara. The South Coast, home to the cities of Santa Barbara, Goleta and Carpinteria, lies along US 101 and is the southernmost center of development of the county. The fast-growing Santa Maria area at the north end of the county includes the cities of Guadalupe and Santa Maria. The city of Lompoc is served by both State Route 1 and State Route 246. At the northeast corner of the county is the Cuyama valley, the fifth of the development centers. State Route 166 (SR 166) runs east and west and connects the Santa Maria and Cuyama centers.

Several growth projections have been recently completed by local, regional, and state agencies to assist communities in developing long-range plans. All of these studies have to make certain assumptions in creating their projections, and different assumptions can yield very different results. SBCAG (*Regional Growth Forecast 2000-2030*), Santa Barbara County (*Santa Barbara County 2030 Land and Population*), and the California State Department of Finance (DOF)

(County Population Projections with Age, Sex and Race/Ethnic Detail (December 1998) – July 1, 1990-2040 in 10-year Increments) all have prepared such studies (see Tables 3 and 4 below).

The principal difference between the reports is whether impacting constraints of housing availability and/or economic conditions (especially job opportunities) were considered in developing the assumptions for population growth. SBCAG's projections are based on employment and population forecasts, adjusted by the constraints of current and future housing availability. Rather than recognize these constraints to growth, the county's projection process bases anticipated growth on the averaged annual growth rate for the last ten years. Additionally, their report identifies projected shortfalls in available housing and estimates land requirements needed to accommodate that shortage outside the current urban boundaries, if this current growth rate continues. Consequently, the county population projections exceed SBCAG's by 1.7 percent for 2020 and 10.7 percent for 2030.

The July 1, 2000 DOF population estimates are interim projections using the 1998 DOF projections as a baseline. These projections are reached by methods similar to SBCAG's, however, there is no consideration given to constraints. Without consideration of these constraints, the variances in projections between SBCAG and the DOF are considerable in the later years, 1.40% by 2010, 8.76% by 2020 and 20.85% by 2030. The population numbers are similar in the earlier years due to the current availability of land within the urban boundaries to develop. The further the estimate is extended, the greater the variance. SBCAG's projections assume buildable property within the current urban boundaries will be consumed in the early years, leaving little land available for the projected later-year expansion.

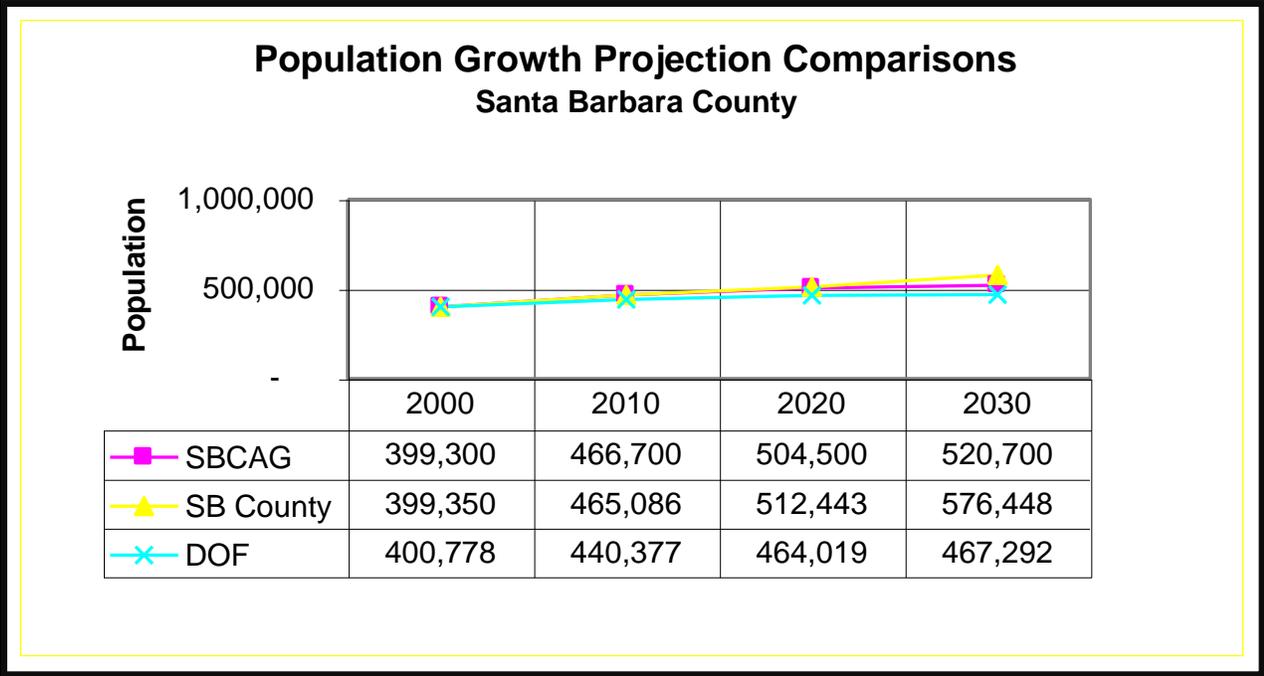


Figure 2.8 Sources: SBCAG (2004 Metropolitan Transportation Plan), Santa Barbara County (Santa Barbara County 2030 Land and Population), and California State Department of Finance (DOF) (Population Projections by Racial Ethnicity, Gender and Age for California and its Counties 2000-2050, May 2004)

FIGURE 2.8 SANTA BARBARA COUNTY GROWTH PROJECTIONS

Table 2.6 Santa Barbara County Growth Projections					
AGENCY	PROJECTIONS	2000	2010	2020	2030
SBCAG ¹	Population	399,300	466,700	504,500	520,700
	Population change from 2000		67400	105200	121400
	Percent change from 2000		16.88%	26.35%	30.40%
Santa Barbara County ²	Population	399,350	465,086	512,443	576,448
	Population change from 2000		65736	113093	177098
	Percent change from 2000		16.46%	28.32%	44.35%
DOF ³	Population	400,778	440,377	464,019	467,292
	Population change from 2000		39599	63241	66514
	Percent change from 2000		9.88%	15.78%	16.60%

¹ SBCAG (2004 Metropolitan Transportation Plan)

² Santa Barbara County (Santa Barbara County 2030 Land and Population)

³ California State Department of Finance (DOF) (Population Projections by Racial Ethnicity, Gender and Age for California and its Counties 2000-2050, May 2004)

Regardless of which estimate proves more accurate, anticipated population growth is considerable with 2020 estimates between 16% and 28%, and 2030 estimates between 17% and 44%. Providing adequate roadway systems and modes of transportation for these

additional county residents will be a challenging task. In past statewide surveys, trips per household and weekday driver trips per vehicle were greater in Santa Barbara County than most other counties within the state. Given this pattern and the projected population growth, Santa Barbara County Association of Governments recognizes there will be continued growth in the region's vehicle miles traveled over the next 20 and 30 years.

By 2020, 52 percent of Santa Barbara County's projected population is expected to reside in the northern county, up from 48 percent in 1990. In addition, the North County's share of the employment base is projected to increase from 40 percent to 46 percent by 2020. This area is less constrained by geography and existing development, and growth will be more easily accommodated and accepted. SBCAG's and the county's reports show the North County area surrounding Orcutt and the South Coast area around the new city of Goleta will be the centers of most of the county's growth.

The graphs provided below by the California Department of Finance (DOF) shows both the past and anticipated future growth rates of Santa Barbara County. While the growth spurts peaked in the 1960s and 1970s, the DOF is still expecting to see considerable growth within the county. The following data and graphs provided by SBCAG's *Regional Growth Forecast 2000-2030* reflect the upcoming transition in population, employment and housing anticipated in the county. Noticeable in the projections are the disproportionate increases in both North County's population and households as compared to their employment increases versus the South Coast.

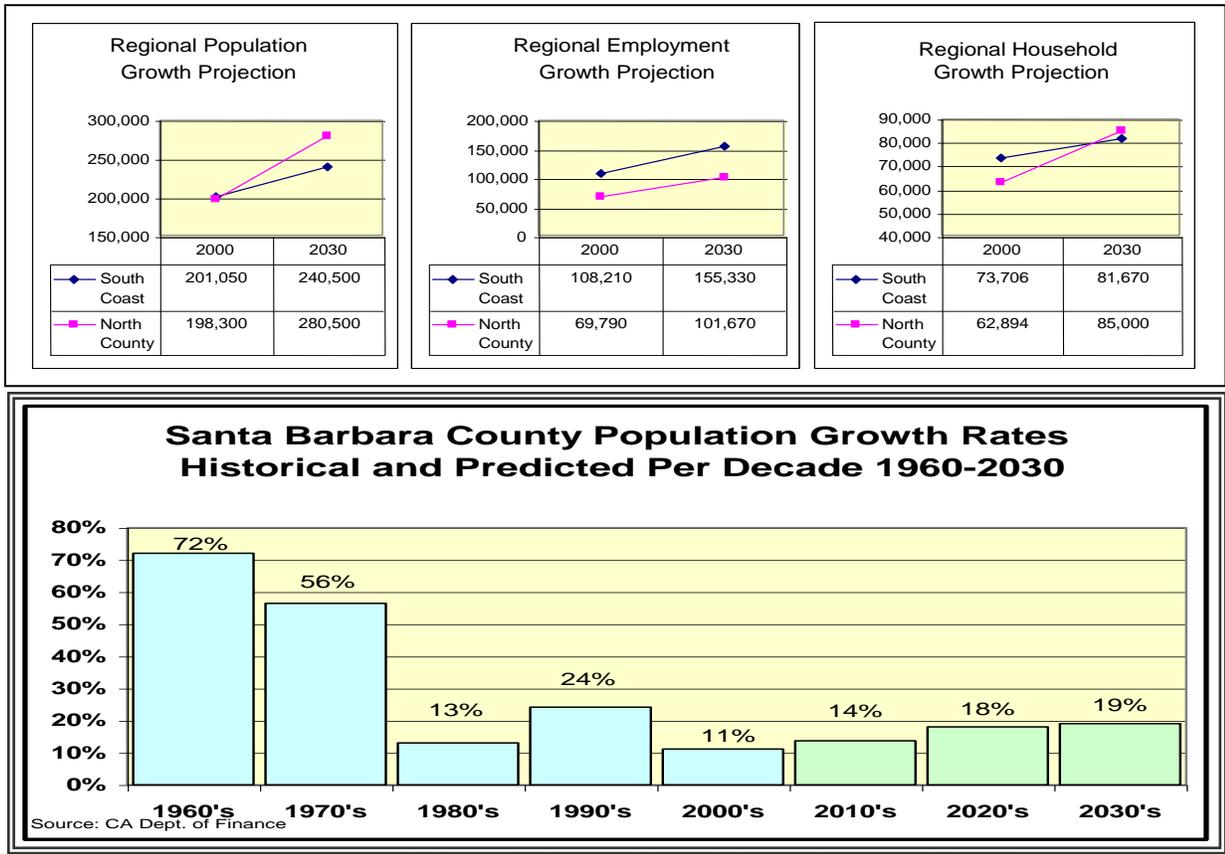


FIGURE 2.9 HISTORICAL POPULATION GROWTH RATES

2.2.5 Parks & Recreation

Cachuma Lake Recreation Area is a large attractor for recreational trips on SR 154, with camping, boating, and fishing available, as well as picturesque viewsheds of the Santa Ynez and San Rafael Mountains. Because of the mild temperatures, the site is visited year-round, with peak activity during the summer.

Other activity points are:

- ✓ Live Oak Campgrounds, hosting multi-day events such as Live Oak Music Festival, the Chumash Intertribal Powwow and various equestrian events.
- ✓ Numerous vineyards and tasting rooms.
- ✓ Several Vista Points overlooking the wilderness area, mountains and wooded valleys.
- ✓ Painted Cave State Historic Park, a site for viewing Chumash petro glyphs (rock paintings).
- ✓ Mattei's Tavern and Cold Spring Tavern, stagecoach stops dating from the 1800's that are operating restaurants and tourist attractions.

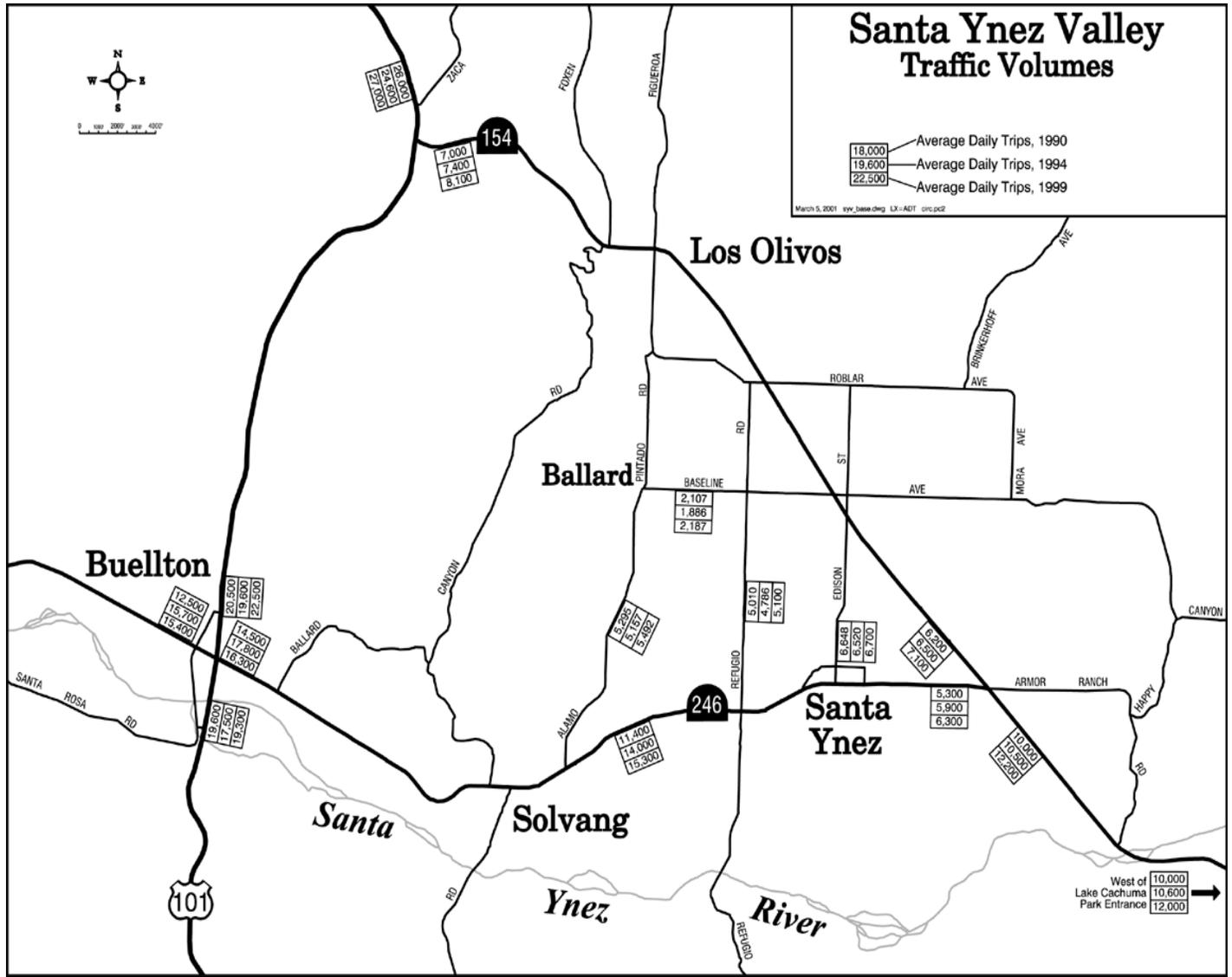
The corridor also serves attractions such as the Chumash Casino in Santa Ynez located off of SR 246 with direct access to SR 154, and the many cultural attractions of the city of Santa Barbara. In general, the local attractions affect traffic year-round, but peak in the summer months.

2.3 *Parallel Routes and Local Connections*

There are few routes that parallel the SR 154 corridor, but a number of connections provide access to points along the route. The most significant is SR 246, joining just east of Santa Ynez. This provides the shortest route from Santa Barbara and Vandenburg, Lompoc, and Buellton. The average annual daily traffic is about 9,000 vehicles.

A number of local roads intersect with SR 154 around the Santa Ynez/Los Olivos area, with varying AADTs ranging roughly from 2,000 to 7,000. One of these, Edison/Baseline Road, recently had a four way stop installed, due to the high level of cross and turning traffic. The map shown as Figure 10, while dated, shows the trends in traffic increases on select local roads, as found in the Santa Ynez Valley Community Plan (2009).

At the Santa Barbara end of the corridor, a few intersections and one interchange provide service to destinations south (San Marcos Road, San Antonio Creek Road) and east/west (SR 192, Calle Real, and State Street). The east/west connections divert some of the traffic to Santa Barbara and Goleta destinations, but the effect on congestion is limited to the last few miles of the route. The south alternative routes are narrow and windy, not conducive to shortening commutes.



Source: Planning and Development Mapping Division, County of Santa Barbara, 2009

FIGURE 2.10 INTERSECTION TRAFFIC VOLUMES ON LOCAL ROAD NETWORK

2.4 Public Transportation, Passenger Rail and General Aviation

2.4.1 Passenger Rail

Amtrak provides passenger service along the central coast, roughly paralleling the US 101 corridor. The “Coast Starlight” links Los Angeles and Seattle with a daily northbound and southbound train. Amtrak's “Pacific Surfliner” provides service to cities between San Diego and San Luis Obispo with two northbound trains, two southbound trains, and three bus link connections. The local boarding platform at Surf Station opened in 1999. A shuttle between parts of the Santa Ynez Valley and the Surf rail station near Lompoc has been discontinued due to lack of ridership; however, Amtrak through bus connections still stop in Solvang and Buellton.

2.4.2 Bus

Santa Ynez Valley Transit. Community transit service is relatively good for a rural community, with variable headways that can range from a ten to ninety minutes, depending where the stop is located. Operating hours are from 8 AM to 6:30 PM, Monday through Saturday. The service area encompasses Los Alamos, Santa Ynez, Solvang and Buellton, with no linkages to other cities. Strategies for improvement include extending hours to allow connection with the Valley Express commuter bus to Santa Barbara, and eventually connecting Santa Ynez Transit with the Breeze transit service, linking with Lompoc, Vandenberg and Santa Maria.

Regional transit does not begin at a walkable distance from Los Olivos, with the Valley Express departing from downtown Solvang weekdays (3 round trips to Santa Barbara via US 101), about 9 miles away. Improvement strategies are to extend the ends of the route to Los Olivos and/or the Park and Ride lot at the SR 154/246 intersection. Rerouting one of the round trips to go to Santa Barbara via SR 154 might be another option.

Valley Express. An additional transit service began in 2005 called the *Valley Express*, which serves commuter needs between the communities of Buellton/Solvang and Goleta/Santa Barbara. Three round trips a day are operated by Santa Barbara Metropolitan Transit District (MTD). No portion of the route is on SR 154, but pickup points are within a five mile bike-riding range of Santa Ynez and Ballard, and the service does divert a number of travelers from using SR 154. None of the runs start late enough to be fed by Santa Ynez Valley Transit in the morning, but riders can connect on the last Valley Express bus to most parts of the valley. Valley Express service as operated by MTD will be discontinued in August 2011. Commuter bus service from the Santa Ynez Valley will continue to be provided by modifying some of the existing Clean Air Express routes that originate in Santa Maria with a stop in Buellton. There will no longer be a stop in the City of Solvang. The new service will no longer stop at the Park and Ride facility near the Rancho de Maria development, but will stop on Avenue of Flags near the SB 101 off-ramp.

The Chumash Tribe also provides bus shuttle service from the Santa Barbara, Goleta, Santa Maria and Lompoc areas to their casino. The shuttle service collection point from Santa Barbara is at Milpas/Calle Puerta Vallarta, and from Goleta the collection point is the Camino Real Marketplace. Santa Maria pickups occur at Skyway/Auto Park Drive and there are nine to twelve roundtrips available weekdays and weekends respectively. The passengers are casino visitors and staff. The service is available to others on a space-available basis, but it is not a public transit service and no guarantees can be made about the availability of space. This small-scale, private transit system is an excellent example of a TDM measure that is reducing vehicle trips on the route.

MTD. SR 154 intersects with one of the MTD routes (Route 8, with half-hour service) between downtown Goleta and downtown Santa Barbara. This has limited value for trip diversion, but does offer a modal alternative for a few people who travel through this corridor.

2.4.3 General Aviation

There is a small airport near the SR 154 corridor, easily accessible through SR 246. The Santa Ynez Airport has a 2,804' runway and offers fuel, glider flights and flight instruction. With this length of runway, the airport serves recreational and light commercial users and is classified as a general aviation airport.

Santa Barbara Airport is located about 5 miles from the southernmost end of SR 154, and is the largest airport in Santa Barbara County, carrying out 174,000 operations annually. The longest of its three runways is 6,054 feet and it provides nationwide service through five commercial airline operators. The principal activities at Santa Barbara Airport consist of a passenger terminal, general aviation fixed base operations, an aircraft rescue and fire fighting facility, and a variety of aviation and non-aviation related businesses. Some diversion of trips from roadways probably occurs, as Santa Ynez is home base for 105 airplanes and Santa Barbara has 179 based aircraft.

2.5 *Bicycle and Pedestrian*

All portions of SR 154 are open to bicycles and shoulders vary in width (0' to 8'). The *2008 Regional Transportation Plan and the 2008 Draft Regional Bike Plan* produced by SBCAG include a system of bikeways providing access throughout major population centers as well as linkages among such centers and recreational destinations in the region (Figure 2.11). The bikeway system can also provide intermodal access to Park and Ride facilities for inter-city transit or rail users. County plans show a proposed Class I Bike Path between Santa Ynez and the junction of SR 154 and SR 246. This would extend an existing Class I Bike Path that now connects Solvang with Santa Ynez on the north side of SR 246. Other proposed bicycle facilities are shown below.

- Class II Bike Lane on Edison Rd from SR 246 to SR 154 intersection, then along the frontage road to Baseline Avenue, along Baseline Avenue to Alamo Pintado Road.
- Class II Bike Lane on Grand Avenue from Roblar Ave northward to SR 154. This would extend an existing Class II Bike Lane connecting SR 246 to Grand Avenue via Alamo Pintado Road.

Santa Barbara County will need to coordinate with Caltrans on any portion of the trail within state right-of-way. In June 2011, the City of Santa Barbara completed the Class I Jake Boysel Multipurpose Pathway project which extends west from the Calle Real/State Route 154 intersection to the St. Vincent's driveway. The pathway connects with the existing multi-use path that parallels Route 154 between Calle Real and La Colina Road. The pathway provides important connections for students traveling to and from nearby schools and was a federally funded Safe Routes to School project.

Improved bicycle facilities would primarily benefit local students in the area who use the facilities to commute to school. Better connected and safer facilities would encourage more people to consider commuter cycling and potentially lead to a decrease in vehicular congestion. As an alternative to driving, people will generally commute by bicycle as far as six miles, and paths that are safe are used more frequently. Closing the circulation loops of signed bicycle facilities would make shopping, recreation, residences and schools available within six miles for many of the Los Olivos/Ballard residents.

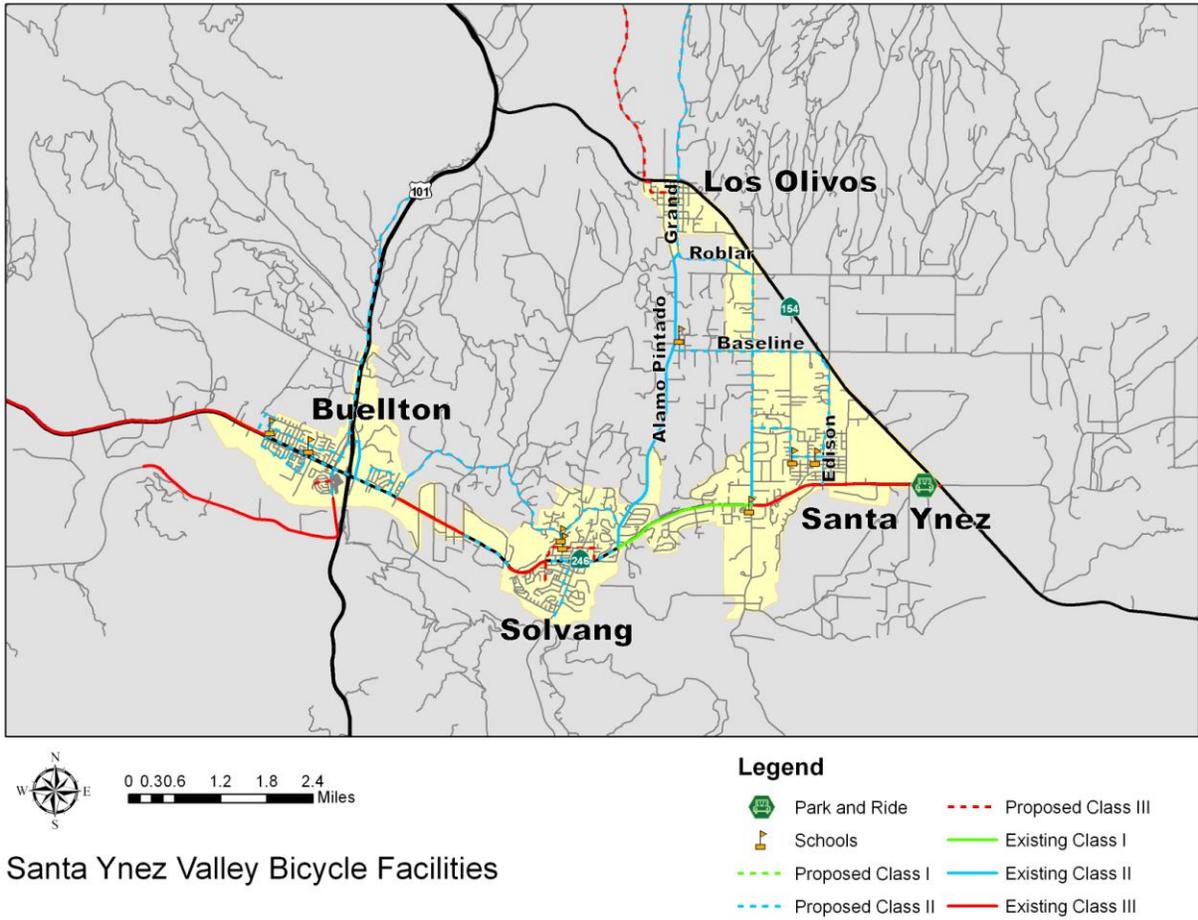


FIGURE 2.11 SANTA YNEZ VALLEY BICYCLE FACILITIES

2.6 Goods Movement

The Goods Movement Action Plan for California (2007) lists priority regions and corridors for goods movement improvements. While SR 154 is not among the routes listed in this plan, the route has become increasingly important for goods movement. The agricultural industry and very productive soils of the Santa Ynez valley areas are critical to the economic vitality of the region. This is especially true for the wine industry within the county. The initial reports of agricultural production for this past season indicate wine will have surpassed broccoli as the largest “cash crop” in the county. With this transition in crops come other factors that impact the transportation system. While the rapid expansion of the fields under grape vine production and wineries has proven positive for the county's economics and tourism, the additional traffic is testing the county's roadway network, including SR 154.

The small airport is not oriented toward goods movement, and the nearest rail station for goods movement is in Santa Barbara, with no intermodal connection yard.

Commodities from the entire Central Coast area are generally moved by truck to the Los Angeles or San Francisco areas via US 101 for consumption or further distribution. The current distribution of trucking percentage of vehicles shows that most of the activity is in Segment 1.

A substantial improvement program was conducted between 1991 and 1995 by SBCAG that benefited operations throughout the SR 154 corridor, collectively known as Phase 1/Phase 2 Operational Improvements for SR 154. These projects improved safety and operations by reducing conflicts associated with passing and turning. Such operational improvements also increase the safety and efficiency of truck movements.

Trucking dominates goods movement on SR 154 as well as throughout the state, and is vital to the agricultural base of the Santa Ynez valley.

The truck percentage of all vehicles varies considerably by segment, from 7.3% of all daily traffic at the northern end (Segment 1A) to 3.2% at the southern end (Segment 3C). There are about twice the number of trucks in the flatter northern segments than are found in the mountainous terrain.

Table 2.7 Percentage of Trucks by Segment

Segment Number	SR 154 Segments	Peak Hour % Trucks	AADT % Trucks	AADT
1A	Foxen Canyon Road To US 101	n/a	7.3%	9,100
1B	SR 246 To Foxen Canyon Road	2%	7.3%	9,100
2A and 2B	Cold Spring Arch Bridge to SR 246	2%	4.8%	15,600
3A	SR 192 To Cold Spring Arch Bridge	5%	3.9%	16,600
3B and 3C	US 101 to SR 192	5%	3.2%	22,500

Source: Trucks in Peak Hour came from the 2000 State Highway Route Segment Inventory. Trucks in AADT is an average from years 2005 through 2009 and came from the Caltrans Headquarter's Traffic Data Branch at: <http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/>

The portion of SR 154 from the SR 246 intersection to the southern US 101 junction has a truck restriction, not allowing the transportation of hazardous materials/waste except for pickup and delivery. This was statutory, apparently introduced to protect Lake Cachuma from accidental spills.

2.7 Transportation Demand Management

Transportation Demand Management (TDM) is the application of strategies and policies to reduce automobile travel demand and facilitate alternative mobility options. It will be

necessary to both propose new TDM programs and enhance existing programs, such as transit facilities, ridesharing programs, and park and ride lots, to reduce demand on SR 154. New TDM elements such as bike/pedestrian facilities and employer-based programs would need to be developed coordinated with the regional planning partners who have responsibility over the funding for these programs. Currently the SBCAG Regional Transportation Plan supports the addition of Park and Ride lots, but does not list any planned new lots on SR 154.

2.7.1 Commuter Programs

In Santa Barbara County, Traffic Solutions, a division of SBCAG, serves as the rideshare organization and implements many Transportation Demand Management (TDM) program. Traffic Solutions' goals include reducing traffic congestion and vehicle miles driven and improving the quality of life for residents and visitors. Its primary objectives are to provide county-wide transportation service and information, develop new programs, educate the public on their choices, and promote cooperative relationships among resident stakeholders of Santa Barbara County. The existing TDM strategies in Santa Barbara County include:

County employees who regularly participate in the TDM program can earn up to two additional vacation days per year. The County also has a telework policy that allows some employees to work from home locations.

The FlexWorkSB program aims to reduce traffic congestion and improve air quality by implementing employer-based flexwork programs that encourage telework, compressed workweeks, and flexible schedules.

Traffic Solution manages a Web-based carpool match service to provide potential carpoolers with contact information of other commuters with a similar commute pattern. In FY 2005, the carpool match list service eliminated an estimated 1.15 million vehicle miles traveled in Santa Barbara County.

Traffic Solutions offers several vanpool incentive programs, including a New Rider Rebate and a Quick Start subsidy, and acts as a liaison between vanpool companies and groups of commuters. Traffic Solutions helps San Marcos Golf Course find suitable vanpools to subsidize, as a mitigation measure for course expansion.

2.7.2 Park and Ride Lots

There are two existing lots that serve commutes within the SR 154 "travel shed" and there is a third lot under development. One existing lot is located on SR 246 near SR 154. Typically, commuters using this lot rideshare between the Santa Ynez valley and Santa Barbara. The Park and Ride lot has 20 designated parking spaces, and is well-used, typically with 70% to 80% of the parking slots used daily. The second lot is located in Buellton on Avenue of Flags near Bear Creek Drive and is served by the SBMTD routes 82, 83, 84, and Santa Ynez Valley Transit routes A & B to Buellton, Solvang, Santa Ynez, Los Olivos, Santa Barbara, and Goleta. It has 33 spaces and bike lockers. In addition, the City of Buellton has recently undertaken efforts to create a new Park and Ride facility on an unused portion of the Caltrans right-of-way adjacent to the

southbound Highway 101 exit at the north end of Avenue of Flags. Caltrans is supportive of the City's effort and is currently in relinquishment discussions with the City. If future Park and Ride Lots are considered, they should be well planned and located at multi-modal points.

2.8 Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) is the application of advanced sensor, computer, electronics and communication technologies and management strategies to increase the safety and efficiency of the surface transportation system. However, it means more than this basic definition taken from the 2000 Central Coast ITS Strategic Deployment Plan (SDP). Implementing the concepts behind ITS will change the way users think about and interact with transportation systems and how users will move from point to point. Perhaps more significant and far-reaching will be the impacts upon personal and corporate behaviors when using the transportation system. ITS entails obtaining data, converting data into useful information, and making both real time and long range decisions at personal, corporate, and governmental levels.

District 5 is implementing ITS using a 10-year deployment program that is consistent with the CCITS SDP. The CCITS SDP has been updated for consistency with the National ITS Architecture and the Statewide ITS Architecture which include both regional and interregional applications.

Current ITS components include four changeable message signs (CMS) near the junctions of US 101 and SR 154. The two larger CMS are located northbound at Los Positas and southbound just prior to the SR 154/Los Olivos exit on US 101. Two smaller CMS signs are located at the north (Los Olivos) and south (Santa Barbara) US 101 off-ramps to SR 154. These two smaller CMS signs are going to be re-located by Caltrans to southbound SR 1 in Lompoc just before the SR 246 junction, and the junction of SR 166 and US 101 at the bottom of the northbound off-ramp.

Changeable message signs and travel information technologies help travelers make informed choices about routes. Information about modal alternatives is vital to those seeking to leave their car at home. Of particular interest to the efficient and safe operations on SR 154 are changeable message signs at the ends of the route. These and other information systems will help travelers decide the best route to take between north and south Santa Barbara County.

SBCAG is currently experimenting with a new ITS tool called Dynamic Ridesharing. SBCAG was awarded a \$158,400 FHWA *Value Pricing Pilot Program* grant for the *Santa Barbara Dynamic Rideshare Pilot Program*. According to SBCAG's staff report, this program matches riders and drivers in real time using GPS technologies on mobile phones to enable carpooling on an ad hoc basis. It also complements transit services by providing transportation options that fall outside fixed route transit service or when bus routes are at capacity. Using a micro-payment system that is based on distance traveled, a powerful pricing incentive is created for drivers to offer their unused seats to others. SBCAG is currently working to implement a regional traveler information website in 2012 which will include speed map information, travel times, CHP

incident data, project construction information, etc. Travel times will be provided by SBCAG's recently completed pilot project using blue-tooth technology integrated into call boxes which does have detection on Route 154. Caltrans is also working on implementing a map and web-based version of the "CA511" service.

Chapter 3 Corridor Deficiency Analysis

3.1 Performance Measures

Performance measures are basic to corridor management and investment decision making. They provide the important dynamic daily information needed to assess operational problems caused by traffic congestion and are also used to verify if improvements to the transportation system generate the desired results. Performance measures used to identify current and projected deficiencies within the SR 154 TCR corridor include Mobility and Traffic Safety. For this study mobility and traffic safety are the two performance measures used to analyze deficiencies in the corridor.

Traffic Safety: Provides an overview of collisions along the corridor and highlights locations of high concentrations of collisions or readily apparent patterns. California State TASAS (Traffic Accident Surveillance Analysis System) data can be used to determine the number of collisions, collision rates and concentration locations for collisions along a corridor.

Mobility: Describes how well people and freight move along the corridor. Mobility is easily forecast, which is useful for future comparisons.

3.1.1 Mobility

Delay can be used to measure whether or not a transportation facility is operating well to move traffic, either along the mainline or through an intersection. This takes into account the traffic volumes, the queues created due to congestion, and the time and money lost due to delay within the system. State Route 154 is perceived as having a relatively free flow of traffic, with little delay experienced over the length of the route.

A travel time survey was conducted in spring 2008 using the floating car method for peak hour flow for segments 1, 2, and 3. Three cars covered the prevailing commute directions during peak period. The survey showed that traffic speed was rarely below the posted speed limits. Segment 3C was not analyzed in the urbanized area. Total delay based upon a normal driving speed of 55 mph, shows a computed 86 second delay for the entire 33 mile route. **Table 3.1** summarizes the Average Annual Daily Traffic (AADT) per segment.

Table 3.1 State Route 154 AADT Summary			
SEGMENT	2008 AADT	2030 AADT	PERCENT CHANGE
1A	10,000	19,500	95%
1B	10,000	19,500	95%
2A	15,600	26,400	69%
2B	15,600	26,400	69%
3A	14,700	23,900	63%
3B	20,500	23,700	16%
3C	20,500	23,700	16%

Existing conditions show that average speeds for segment 3B are less than 35 mph because of a controlled intersection there.

Table 3.2 Existing Morning Peak Period Delay (2008) (Prevailing A.M. commute direction is southbound.)				
Segment	SR 154 Segments	Average Speed (MPH)	Travel Time (min.)	Total Delay (sec.)
1A	Route 101 To Foxen Canyon Road	52.3	3.28	9.5
1B	Foxen Canyon Road To Rte. 246	53.5	6.45	12.5
2A	Route 246 To Lake Cachuma Recreational Area	61.7	6.23	0.0
2B	Lake Cachuma Recreational Area To Cold Spring Arch Bridge	58.7	8.55	0.0
3A	Cold Spring Arch Bridge To Route 192	52.7	9.30	23.5
3B	Route 192 To Route 101	34.7	1.84	40.5
	Total	54.9	35.66	86.0

Table 3.3 Existing Afternoon Peak Period Delay (2008)
(Prevailing P.M. commute direction is northbound.)

Segment	SR 154 Segments	Average Speed (MPH)	Travel Time (min.)	Total Delay (sec.)
1A	Route 101 To Foxen Canyon Road	37.7	1.2	22.0
1B	Foxen Canyon Road To Route 246	59.0	8.6	20.8
2A	Route 246 To Lake Cachuma Recreational Area	65.6	13.6	0.0
2B	Lake Cachuma Recreational Area To Cold Spring Arch Bridge	62.8	5.47	2.6
3A	Cold Spring Arch Bridge To Route 192	62.6	2.71	0.8
3B	Route 192 To Route 101	62.0	31.5	22.0
	Total	37.7	1.2	46.2

3.1.3 Traffic Safety

The tables below provide an overview of collisions along the corridor. California State TASAS (Traffic Accident Surveillance Analysis System) data can be used to determine the number of collisions, collision rates and concentration locations for collisions along a corridor.

Collision Rates/Concentrations

Through analysis of collision history, actual rates are shown in relation to State wide averages for similar routes.

Table 3.4 Collision Data for SR 154

SR 154 Segments	Actual Collision Rate *	Statewide Average Collision Rate
1A --Northern Jct. Rte. 101 to Foxen Canyon	0.120	0.320
1B --Foxen Canyon to Jct. 246	0.370	0.025
2A --Jct. 246 to Lake Cachuma	0.130	0.340
2B --Lake Cachuma to Stagecoach Road	0.210	0.430
3A --Stagecoach Road to Jct. 192	0.480	0.540
3B --Jct 192 to Southern Jct. 101	0.380	0.210
3C--Southern Jct. 101 to State Street	0.410	0.910

* Rates are total fatality/injury collisions per 1M vehicle miles for the three year period 12/1/2005 to 11/30/2008.

Table 3.5 Comparison of Traffic Collision Rates at Intersections

PM	Intersection	Actual Collision Rate	Statewide Average Rate
R 0.02	SB On/Off Ramp	0.42	0.72
R 0.09	NB On/Off Ramp	0.00	0.30
R 0.20	Zaca Station Road	0.00	0.20
R 2.39	Foxen Canyon Road	0.57	0.30
R 2.65	Calkins Road	0.34	0.30
R 2.84	Figueroa Mtn. Road/Grand	0.51	0.30
R 3.15	Alamo Pintado Road	0.39	0.30
R 4.50	Roblar Ave	0.17	0.30
R 5.92	Edison/Baseline	0.58	0.30
R 8.11	Junction Hwy 246	0.45	0.30
R 10.04	Armour Road	0.28	0.20
13.56	Cachuma Observation Road	0.11	0.20
14.70	Calchuma Lake Park	0.11	0.20
15.33	Tequepis Canyon Road	0.17	0.20
20.66	Old Stagecoach Road	0.60	0.20
21.59	Paradise Road	0.10	0.20
23.38	Stagecoach Road	0.60	0.20
24.44	Kinevan/E. Camino Cielo Road	0.34	0.30
26.10	Kinevan Road South	0.20	0.20
26.61	San Marcos Road	0.26	0.20
26.61	Painted Cave Road	0.13	0.30
29.95	San Antonio Road	0.16	0.15
32.25	Calle Real	0.36	0.55
32.28	State Street	0.00	0.30
31.23	EB Off Ramp, Cathedral Oaks	1.66	1.20
31.35	WB On Ramp, Cathedral Oaks	0.84	0.60
31.68	EB On Ramp, Cathedral Oaks	0.38	0.75
31.73	WB Off Ramp, Cathedral Oaks	1.05	1.00

* Rates are total fatality/injury collisions per 1M vehicle miles for the three year period 12/1/2005 to 11/30/2008.

The State of California has a process to identify locations of high collision concentrations on state highway facilities. Once a location is identified as a significantly high collision concentration, the location is analyzed for potential improvement, taking into account three elements: the driver, the vehicle, and the roadway and its related environment. When an improvement is identified that is expected to reduce the number and/or severity of collisions, actions are taken which may lead to initiation of a Safety Project.

3.2 Operational Deficiency Analysis

Segment 1 (PM 0.02/R8.11)

This segment functions as a 2-lane expressway or *conventional highway*. Past Freeway Agreements describe this segment as a 4-lane freeway, however at this time, the 20-yr plan is a 2-lane expressway. From the junction with US 101 to PM 2.14 SR 154 is designated a 2-lane conventional highway and the remaining of segment 1 is a 2-lane expressway. Travel speeds vary between 38 mph to 59 mph for an overall delay of 22 seconds east bound a.m. time period and 42.8 seconds west bound p.m. time period. All intersections have 2-way stop signs, with one exception, the intersection of SR 154 at Baseline/Edison, which has a 4-way stop.

Subsegment 1A (PM 0.02/R2.39)

This segment begins at the SR154/US101 interchange and ends at the intersection with Foxen Canyon Road at the northern end Los Olivos and the beginning of residential area. Traffic delay was computed at 9.5 seconds east bound and 0.8 seconds west bound. Transit service is unavailable.

The following intersections are within this segment:

- Zaca Station Road
- Via De Los Ranchos
- Foxen Canyon Road

No major intersections exist to create traffic conflicts. A Changeable Message Sign (CMS) has been placed near the US 101 intersections, to announce lane closure alerts or other traffic advisories. The CMS is at the end of the south-bound off ramp, and another about a mile previous to the southbound off-ramp.

Collision rates along Segment 1A of SR 154 are under the statewide average for similar roadways, except for the intersection analysis for Foxen Canyon Road show that the vehicle collision rates are somewhat higher than the statewide average for comparable facility. This segment is signed for motorists to turn on the headlights.

The posted speed for this subsegment is 55 mph, and the travel survey shows an average speed of 66 mph for west bound am period and 62 mph for the east bound pm period. This segment is operating adequately and no operational improvements are recommended; however, as land use intensifies in the vicinity of Los Olivos and additional vehicle trips are added, the opportunity for vehicular conflicts increases. Local long-range planning should consider the needs of the Foxen Canyon Road intersection.

Subsegment 1B (PM R2.39/R8.11)

This segment starts at Foxen Canyon Road and ends at the SR 246 intersection. SR 154 traverses Los Olivos through the developed/residential area with a current southern limit of Meadowville Road. Channelization has been installed at multiple intersections. Due to documented safety issues at the SR 246/154 intersection, a programmed project currently in Project Approval and Environmental Document (PA&ED) phase is analyzing alternative safety improvements at the SR 246/154 intersection, including a roundabout.

Local concerns include speed and the interaction between vehicle traffic and bicyclists at the intersections. A crosswalk exists at Alamo Pintado, in the vicinity of an elementary school. The Baseline/Edison intersection with SR 154 is controlled by 4-way stop sign. According to 2005-2008 data, collision rates exceed statewide averages.

The following intersections are located in this segment:

- Santa Barbara Ave/Calkins Road
- Roblar Ave
- Alamo Pintado Ave
- Santa Ynez St
- Ontiveros Road
- Calzada Ave
- Edison St/Baseline Ave
- SR 246 (Mission Drive)

The Santa Ynez Valley Community Plan shows additional development in Los Olivos. In 2009 Caltrans vacated the right-of-way along SR 154, with Railway Avenue functioning as a short frontage road reserved for future widening.

The posted speed is 55 mph. The travel survey shows an average speed of 59 mph for the westbound am period and 54 mph for the eastbound pm period. Traffic delay has been computed at 20.8 seconds west bound and 12.5 seconds east bound.

Planning for future improvements at Foxen Canyon was previously recommended. Caltrans submitted additional recommendations for the recently adopted Santa Ynez Valley Community Plan. Recommendations include encouraging the County of Santa Barbara to explore the efficiency of parallel routes along SR 154 to improve local and regional trips, and intersection improvements that address sight distance and speed differentials, depending upon the development types and intensities. In order to keep SR 154 as a more rural 2-lane highway and maintain the through movements, a complete local road network needs to be identified to accommodate the local land uses. The County of Santa Barbara needs to develop their local network and parallel routes prior to stopping or slowing the through movements.

Segment 2 (PM R8.11-R23.38)

This segment functions as a 2 lane conventional highway. The highway is designated an expressway, except from PM 12.18 to 17.87 it is a 2-lane conventional highway. Travel speeds vary between 66 mph to 59 mph for an overall delay of 0 seconds east bound a.m. time period and 2.6 seconds west bound p.m. time period. The construction of passing lanes and other operational improvements have significantly improved operations on this segment.

Subsegment 2A (PM R8.11-14.77)

This subsegment functions as a 2-lane conventional highway and begins at intersection with SR 246 (Mission Dr.) and ends prior to the entrance to the Cachuma Lake County Park. This segment starts at the foothill area and a passing lane is within the eastbound direction none in the westbound direction.

According to 2005-2008 data, collision rates for the segment are less than statewide averages for comparable facilities. The posted speed is 55 mph. The travel survey shows an average speed of 66 mph for westbound am period and 62 mph for the eastbound pm period.

This segment is operating adequately. As land use intensifies, existing intersections will need to be mitigated such as the intersection at Armour Ranch Road with operational improvements such as left-turn channelization and shoulder widening. As development increases in this segment, increased traffic along SR 154 that would impact the state system would be required to provide appropriate mitigation for the impacts and may require a corridor study to analyze this segment from 246 through the Santa Aqueda Bridge.

Subsegment 2B (PM 14.77-23.38)

This subsegment functions as a 2-lane conventional highway, beginning at Cachuma Lake County Park to the Stagecoach Road just east of the Cold Spring Arch Bridge. Mountainous terrain prevails and passing lanes and paved turnouts have been added to this segment in both directions. All collision rates are currently lower than statewide averages for similar segments. The current Route Concept is an expressway.

The posted speed limit is 55 mph except for a 45 mph posted speed by the Cachuma Lake County Park entrance. The travel survey shows an average speed of 63 mph for westbound am period and 59 mph for the eastbound pm period. The segment has signs posted to get travelers to turn on their headlights for safety reasons. This segment is operating adequately. Unimproved at-grade intersections within this segment may need operational improvements such as left-turn channelization and widened shoulders, possibly through mitigation as development intensifies and SR 154 is impacted.

Segment 3 (PM 23.38-R32.84)

This segment functions as a 2-lane conventional highway except for subsegment 3B, which becomes a 2-lane freeway as the route enters the city of Santa Barbara. The highway is

designated an expressway, except from PM24.67 to 30.47 which is a 2-lane conventional highway. Travel speeds vary between 62 mph to 35 mph for an overall delay of 64 seconds east bound a.m. time period and 47 seconds west bound p.m. time period. Maintenance issues include landslides which have completely closed the San Marcos Pass in the past.

Subsegment 3A (PM 23.38-R31.55)

This subsegment functions as a 2-lane conventional highway beginning at Stagecoach Road with a double passing lane for 2 miles, creating a very short four-lane section. This provides relief in both directions, particularly for the east bound traffic, with a significant grade (7%) as the route climbs toward San Marcos Pass. West bound existing operational improvements include an additional passing lane, and two paved turn-outs. Maintenance issues include landslides that have periodically closed lanes or the entire road. The subsegment ends at the SR 154/SR192 (Cathedral Oaks/Foothill Roads) interchange. The SR 154 west bound on-ramp extends over half a mile along SR 154 to serve as a passing lane.

Collision rates are below statewide averages for similar roadways. The posted speed is typically 55 mph, with specific posted speeds on the many curves found in this mountainous terrain. The travel survey indicated 53 mph for the average speed for the east bound am period and 63 mph for the west bound pm period. This segment is also posted for daytime use of headlights. Operational improvements for this segment include widen shoulders, improve access to driveways and lengthen and add turnouts.

Subsegment 3B (PM 31.55/32.29)

This subsegment functions as a 4-lane freeway, with shoulders greater than eight feet wide, beginning with the interchange at SR 154/SR 192, followed by under crossings for Primavera Road and La Colina Road and ending with the interchange of SR 154/US 101. East bound 154 crosses US101/SR154 interchange and ends at the intersection of SR 154 and State Street.

Collision rates are above statewide averages for similar roadways. The travel survey indicated speed of 34.7 mph for eastbound am traffic and 62 mph for westbound pm traffic. Traffic delay during peak hours has been recorded as 40.5 seconds east bound and 22.0 seconds west bound. The current route concept for this section is a 4-lane freeway. Operational improvements suggested are an improvement to the US 101/SR 154 (San Marcos Pass Road) interchange and extending the SR 154 Eastbound on-ramp from SR 192 (Foothill Road) to serve as a passing lane.

Subsegment 3C (PM 32.29/32.84)

This subsegment, signed for westbound SR 154, is urban and functions as a conventional highway aligned with Calle Real, a frontage road for US 101. It begins at the signalized intersection of San Marcos Pass Road (SR 154) and ends at the signalized intersection of State Street. Northbound traffic along this segment has a free right turn to continue traveling east bound on SR 154. This subsegment gives access to residential areas through driveways and two intersections, Pesetas Lane and Wye Road. The median accommodates left-turn channelization and landscaped median islands. It has one travel lane in the east bound direction and two lanes

in the westbound direction. This section includes striped bike lane along both sides. Transit connections can be made at stops along Calle Real and State Street near this segment (Figure 11).

The posted speed limit is 35 mph. According to 2005-2008 data, collision rates are below statewide averages for similar roadways. The daily traffic volume is about 17,000 AADT. This segment is operating adequately and no improvements are recommended.

For the purposes of this TCR the Ultimate Concept (20 years and beyond) will remain the same as the 20 year concept.

Chapter 4 Corridor Management Strategies

4.1 SR 154 Route Concept

The Department strives to provide a reasonable through-flow on SR 154 throughout its length. The 20 year transportation concept is a two-lane expressway. California Streets and Highways Codes, Section 253.1, specifies SR 154 as a part of the freeway and expressway system.

Beyond 20 years, there may be sections of SR 154 that transportation demand, community concerns and sufficient funding lead to adding lanes. These are Segment 1A and Segment 1B. Right-of-way should be preserved for that possibility, but consideration should be given to allow excess right of way on remaining segments to be released as surplus. These issues are shown in **Table 4.1** by segment.

4.1.1 20 Year Route Concept

The 20 Year Route Concept for the SR 154 facility is shown in the **Table 4.1**. In addition, actions to meet the targeted delay and continuity goals are shown in **Section 4.2**.

Segments 1A and 1B should reserve the right-of-way to widen to a four lane expressway should development pressure require additional capacity. As previously noted, this is not expected to occur in the 20 year time horizon of this TCR.

Table 4.1 SR 154 Segment Considerations and Route Concept for 2030

SEGMENT	SEGMENT LIMITS	EXISTING FACILITY	ROUTE CONCEPT	20-yr Plan RECOMMENDATION
1A	US 101 to Foxen Canyon Road (Community of Los Olivos) PM 0.02/R2.39	2-Lane conventional highway PM 0.0-R2.14 2-Lane expressway PM R2.14-R2.39	2-lane Expressway	Upgrade sections of conventional highway to an expressway
1B	Foxen Canyon Road to SR 246 (Mission Drive) PM R2.39/R8.11	2-Lane Expressway	2-lane Expressway	Maintain existing functional classification
2A	SR 246 (Mission Drive) to Lake Cachuma County Park PM R8.11/14.77	2-Lane expressway PM R8.11/12.18 2-Lane conventional highway PM 12.18/14.77	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
2B	Lake Cachuma County Park to Stagecoach Road (SE of Cold Spring Arch Bridge) PM 14.77/23.38	2-Lane conventional highway PM 14.77/17.87 2-Lane expressway PM 17.87/23.38	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
3A	Stagecoach Road to SR 192 (Foothill Road) PM 23.38/R31.55	2-Lane conventional highway PM 23.38/24.67, PM 30.47/R32.84 2-Lane expressway PM 24.67/30.47	2-lane Conventional Highway/ Expressway	Maintain existing functional classification
3B	SR 192 (Foothill Road) to US 101 interchange (East Bound Rte 154 ends at intersection with south bound ramps) PM R31.55-R32.29	2-lane Freeway/Expressway	4-lane Freeway/ Expressway	Maintain existing functional classification
3C	West Bound Rte 154 (Calle Real) - Jct 101 to State Street in the city of Santa Barbara PM R32.29-R32.84	2-lane conventional SR 154 west bound only	2-lane Conventional Highway	Maintain existing functional classification

4.2 Corridor Strategies for State Route 154

The following general recommendations apply to all segments of SR 154. It is important to monitor development that impacts this route, assuring that needed mitigation is gained. Otherwise, cumulative delays will create longer and longer trips and the concept target cannot be maintained.

The improvements to achieve the transportation concept that may be feasible and acceptable are listed below.

Table 4.2 Summary of Route Concept Recommendations

NUMBER	SEGMENTS	ROUTE CONCEPT RECOMMENDATIONS
1.	1	Limit access points to convert more of the conventional highway portions into expressways (Segment 1).
2.	1	Consolidate access with increased development and consider various operational improvements including roundabouts.
3.	1, 2, 3A, 3C	Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists.
4.	All	Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing.
5.	All	Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. Partner with Transportation Agencies who would desire to implement new technologies for enhanced detection on the state highway system.
6.	All	Promote the use of Transportation System Management and Transportation Demand Management measures by all stakeholders.
7.	All	Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Appendix A

Definition of Terms, Acronyms and Abbreviations

APPENDIX A

DEFINITIONS OF TERMS, ACRONYMS, AND ABBREVIATIONS

AB 69 (1972)	Legislation enacted in 1972 creating the multi-modal California Department of Transportation and requiring State and regional transportation plans.
AB 402 (1977)	Legislation enacted in 1977 which amended and repealed portions of AB 69 (1972), created the California Transportation Commission (CTC) to replace prior boards and commissions and established the State Transportation Improvement Plan (STIP).
Access Control	The condition where the right of owners or occupants of abutting land or other persons to access a highway is fully or partially controlled by public authority.
ADA	Americans with Disabilities Act – Landmark 1990 civil rights legislation barring discrimination against people with disabilities in all major areas of life. As it relates to provision of transportation services, the ADA requires transportation providers ensure nondiscriminatory, accessible service for disabled individuals, and that public transportation providers operating fixed route bus service provide paratransit service comparable to the fixed routes.
ADT	Average Daily Traffic – The average number of vehicles passing a specific point during a 24-hour period. Similarly, Average Annual Daily Traffic is AADT, where the average is further normalized by averaging an entire year's traffic flows.
Air Basin	An area or territory containing similar meteorological and geographic conditions. In California, the Air Resources Board (ARB) has established nine air basins.
ALUC	Airport Land Use Commission - Agency responsible under state and federal law to protect public health, safety, and welfare by ensuring vacant lands in the vicinity of the airports are planned and zoned for uses compatible with airport operations.
ALUP	Airport Land Use Plan - A plan which provides for the orderly growth of the airports in the region. Local general plans, specific plans, zoning ordinances and other local land use regulations are required by state law to be consistent with the ALUP.
Arterial Highway	A general term denoting a highway primarily used for through traffic usually on a continuous route.
Auxiliary Lane	The portion of the roadway for traffic weaving, truck climbing, speed change, or other purposes supplementary to through traffic movement.
Average Travel Speed (ATS)	One of the performance measures used to estimate level-of-service (LOS) on a highway. The facility length divided by the average travel time of all vehicles traversing the facility, including all stopped delay times.
Blueprint Legislation (Prop 111-1989)	A statewide funding package developed by the California Legislature developed in 1989 and approved by the voters in 1990. The legislation, also known as Proposition 111, raised state gas and diesel taxes by 9 cents per gallon to pay for numerous projects and added requirements for county-level Congestion Management Programs.

CAP	Clean Air Plan – The federal 1990 Amendments to the Clean Air Act require a comprehensive demonstration of attainment of the federal emissions standards by the non-attainment areas.
CEQA	California Environmental Quality Act (1970) - A law requiring governmental decision-makers be provided adequate information about the potentially significant environmental impacts of proposed projects. CEQA also mandates ways to avoid or significantly reduce damage to the environment.
Channelization	The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movement of both vehicles and pedestrians.
CIP	Capital Improvement Program – A list of projects, their estimated costs, and schedules contained within an approved report by the responsible agency.
Clear Recovery Zone	An area clear of fixed objects adjacent to the roadway established to provide a recovery zone for vehicles that have left the traveled roadway. Minimum distances have been established. However, when an object (i.e., a tree) is desired to be retained, guardrails or some other similar structure are used to prevent head-on collisions with those fixed objects.
Climbing Lane	A lane added on an uphill grade for use by trucks, recreational vehicles and other heavy vehicles when their speeds are significantly reduced by the grade.
Concept	A strategy for future improvements that will reduce congestion, improve the mobility of people and goods and/or maintain the existing level of service on a specific route.
Conformity	Process to assess the compliance of any Federally funded or approved transportation plan, program, or project with air quality implementation plans. The conformity process is defined by the Clean Air Act.
Continuous left-turn lane	A lane that simultaneously serves left turning vehicles traveling in opposite directions.
Conventional Highway	A highway without access control, which may or not be divided by a median. Grade separations at intersections or access controls may be used when justified at spot locations.
CMA	Congestion Management Agency – The county agency responsible for developing, coordinating and monitoring the Congestion Management Program (CMP) required by Section 65088 of the California Government Code.
CMAQ	Congestion Mitigation and Air Quality Program – A program created by the Intermodal Surface Transportation and Efficiency Act (ISTEA) providing funds for transportation plans and programs in areas not currently in attainment with the federal Clean Air Act (CAA) for ozone and/or carbon monoxide.
CMP	Congestion Management Program – A comprehensive program designed to reduce auto-related congestion through roadway improvements, travel demand management (TDM) and coordinated land-use planning among all local jurisdictions. The program is required of every county in the state with an urbanized area of at least 50,000 people and is updated biennially.
CMS	Congestion Management System – A system required of all Transportation Management Areas (TMA). Often adopted as a part of the CMP, the CMS is primarily composed of the principal arterials in the region. - ALSO - Changeable Message Signs – Electronic signs that can change the message it displays and often used along highways to alert and redirect traffic when travel conditions demand or provide “Amber Alert” notifications.

CTC	California Transportation Commission – A body appointed by the governor responsible for the State Transportation Improvement Program (STIP), the development of the Regional Transportation Plan Guidelines, and statewide transportation policy.
CTIS	California Transportation Investment System Tool – A Geographical Information System (GIS) software tool that virtually displays where investments in the transportation system is currently underway (programmed) and where it is planned for the next 20 years.
CTP	California Transportation Plan – A long-range transportation plan for the state required by ISTEA.
Collector	Surface street providing access and traffic circulation within residential, commercial, and industrial areas to adjacent parcels of land.
Couplet	A pair of parallel one-way roadways running in opposite directions. This offers the potential for increasing capacity within tight city blocks where the existing roadway cannot be widened, and a parallel roadway exists that either can accommodate additional traffic or can be modified to do so.
Design Exception	Written record documenting the engineering decision(s) leading to an exception to a design standard. Exceptions are possible for both mandatory and advisory design standards.
DSMP	District System Management Plan – A document prepared by each Caltrans district. The DSMP identifies Caltrans priorities for highway system improvement and is used by both the Department and external agencies.
Design Speed	A speed selected to establish specific minimum geometric (horizontal, vertical, site distance) design elements for a particular segment of road.
Easement	A right to use or control the property of another for designated purposes.
EIR/EIS	Environmental Impact Report/Environmental Impact Statement – An analysis of the environmental impacts of proposed land development and transportation projects. An EIR is prepared in response to State requirements found in CEQA. An EIS is conducted for federally funded or approved projects per the National Environmental Policy Act (NEPA - 1969). The normal procedure is to circulate a “draft” document to the public and involved agencies for comments.
EPA	Environmental Protection Agency – The United States agency charged with setting policies and guidelines and carrying out mandates for the protection of national interests in environmental resources.
ERM	Emergency Response Management – A component of the ITS system, these systems enable the rapid deployment of emergency vehicles and personnel to the scene of an accident.
Expressway	An arterial highway with at least partial control of access, which may or may not be divided or have grade separations at intersections.
FAA	Federal Aviation Administration – An agency under the U.S. Department of Transportation (US DOT) responsible for all federal aviation programs.
FHWA	Federal Highway Administration - An agency under the U.S. Department of Transportation (US DOT) responsible for all federal highway programs.
FRA	Federal Railroad Administration – An agency of the US Department of Transportation that funds rail planning and deployment projects.
FSTIP	Federal Statewide Transportation Improvement Program – This program is a statewide compilation of projects proposed by the regionally adopted FTIPs and competing for federal transportation funding from TEA 21. The FSTIP is prepared by Caltrans to meet the federal requirements of Title 23 USC.

FTA	Federal Transit Administration - An agency under the U.S. Department of Transportation (US DOT) responsible for all federal programs related to mass transit. This agency was formally known as the Urban Mass Transit Agency (UMTA).
FTIP	Federal Transportation Improvement Program – A multi-year list of transportation projects predominantly funded from federal sources. The FTIP is developed and adopted by the RTPA on a biennial basis. Once adopted, the FTIP is submitted to the CTC and federal funding agencies.
Focus Routes	These routes are a subset of the 34 High Emphasis (HE) IRRS routes. They represent the ten routes or corridors that should be the highest priority for completion to minimum facility standards in order to serve higher volume interregional trip movements.
Freeway	A divided arterial highway with full control of access and with grade separations at intersections. A freeway, as defined by statute, is also a highway in respect to which: (1) the owners of abutting lands have no right or easement of access to or from their abutting lands; or (2) such owners have only limited or restricted right or easement of access. This statutory definition also includes expressways.
F & E System	Freeway and Expressway System – The Statewide system of highways declared by the Legislature to be essential to the future development of California. The F&E System has been constructed with a large investment of funds for the ability of control access, in order to ensure the safety and operational integrity of the highways.
Freeway capacity	The maximum sustained 15-minute flow rate, expressed in passenger cars per hour per lane (pc/h/ln), that can be accommodated by a uniform freeway segment under prevailing traffic and roadway conditions in one direction of flow.
Frontage Road	A local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and adjacent areas. These roads also allow for control of access onto the highway system.
Functional Classifications	A grouping of streets and highways sorted as to the character of service they are intended to provide.
GIS	Geographic Information Systems – Computerized data management system designed to capture, store, retrieve, analyze, and report on geographic and demographic information in a visual format, usually in the form of a map.
Goods movement	The general term referring to the flow of commodities, modal good movement systems, and goods movement institutions.
GPS	Global Positioning System - A system that determines the real-time position of vehicles using communications via satellite.
Grade separation	A crossing of two highways or a highway and a railroad at different levels with one bridging the other.
Interchange	A system of interconnecting roadways in conjunction with one or more grade separations providing for the interaction of traffic between two or more roadways on different levels.
HE Routes	High Emphasis Routes - The most critical routes of the Interregional Road System (IRRS), as well as the most critical for interregional travel and the state as a whole.
HCM	Highway Capacity Manual – A manual describing the relationships between roadway capacity and travel/flow characteristics, and containing

	procedures for calculating the level-of-service (LOS) of a roadway or intersection.
HOV lanes	High Occupancy Vehicle lanes – A travel lane on a roadway segment whose use is restricted to vehicles where a predetermined minimum number of occupants are in the vehicle, usually more than one person.
Initial Study	A preliminary study prepared by the lead agency to determine whether an environmental impact report (EIR) or negative declaration (ND) must be prepared pursuant to CEQA.
IRRS	Interregional Road System – A series of interregional state highway routes, outside the urbanized areas, which provides access to, and links between, the State’s economic centers, major recreational centers, and urban and rural areas.
ISTEA	Intermodal Surface Transportation and Efficiency Act – Federal transportation legislation signed into law in 1991 that substantially changed the way transportation funding decisions are made. The Act emphasized diversity, balance of modes, and the preservation of the existing system. It was superseded by TEA 21 in 1998.
Intermodal Transportation	The process of applying a system approach to transportation in which goods and people are transported in a continuous and efficient manner between origin and destination, using two or modes in the most efficient manner.
ITIP	Interregional Transportation Improvement Program – A program prepared biennially by Caltrans that includes interregional highway and intercity rail projects proposed for funding through the STIP. This program represents 25% of the total STIP budget, with the other 75% in the RTIP. Sixty percent of the ITIP funds are programmed and expended for improvements to state highways outside the boundaries of urbanized areas (populations greater than 50,000) and for intercity rail projects. RTPAs/MPOs may propose projects for consideration by Caltrans for inclusion in the ITIP.
ITS	Intelligent Transportation System – This is a general term to describe a range of advanced electronic and information technologies that can be used to improve the safety, operational efficiency, and productivity of the transportation system.
ITSP	Interregional Transportation Strategic Plan – A plan identifying six key objectives for implementing the Interregional Improvement Program (IIP) and strategies and actions to focus improvements and investments. This document also addresses development of the IRRS and intercity rail in California, and defines a strategy that extends beyond the current STIP.
Interstate Highway System	The system of highways that connects the principal metropolitan areas, cities, and industrial centers of the United States. The Interstate System also connects the US to internationally significant routes in Mexico and Canada.
Lane numbering	On a multi-lane roadway, the traffic lanes available for through traffic traveling in the same direction are numbered from the left to the right when facing in the direction of the traffic.
Lead Agency	The public agency that has the principal responsibility for preparing project environmental documents and for carrying out or approving a project which

	may have a significant effect on the environment.
LAFCO	Local Agency Formation Commission – Commission in each county formed by a State legislative act with the objectives of discouraging urban sprawl and encouraging the orderly formation and development (or dissolution) of local government agencies (e.g., incorporation into cities) and special districts.
LCP	Local Coastal Plan – A guide for the development of land within the coastal areas of California. The zoning ordinances of the jurisdictions within the region implement provision of the LCP.
LOS	Level of Service - Term used to describe the quality of operation of a highway facility. It is a qualitative measure of the effect of such factors as speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, convenience, safety and operation cost. In this report, LOS is based on peak traffic hours. On urban street systems, the quality of flow is most frequently controlled by traffic conditions at signalized intersections. The flow characteristics are defined in six levels of service.
LOS A	Describes a condition of free flow, with low volumes and high speeds. Traffic density is low, with speeds controlled by driver desires, speed limits, and physical roadway conditions.
LOS B	This zone allows stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.
LOS C	This zone still allows stable flow, but the higher volumes more closely control speeds and maneuverability. Most of the drivers are somewhat restricted in their freedom to select their own speed, change lanes, or pass.
LOS D	This level approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions. Fluctuations in volumes and temporary restrictions to flow may cause substantial drops in operating speeds.
LOS E	This level cannot be described by speed alone, but represents operations at even lower operating speeds than in level D, with volumes at or near the capacity of the highway. Flow is unstable, and there may be stoppages for brief periods of time.
LOS F	Describes forced flow operation at low speeds, where volumes are below capacity. These conditions usually result from vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of the downstream congestion. In the extreme, both speed and volume can drop to zero.
LTA	Local Transportation Authority – An agency created to be responsible for implementing and administering special sales tax revenues designated for transportation projects.
LTF	Local Transportation Fund – A county fund derived from an additional sales tax as established by the Transportation Development Act for public transportation. LTF funds are administered and allocated to local governments, transit operators and CTSA's by the RTPA. LTF revenues must

	be used for transit purposes as a first priority, but may be used for street and road purposes if the RTPA finds there are no unmet, reasonable transit needs. The process of identifying these unmet transit needs involves conducting public hearings. The recommendations following this process are often contentious, as communities struggle to fund both those transit needs and roadway maintenance.
Matching Funds	The share of funds that must be put up by the State or local applicant to supplement the Federal share of funds to finance a Federal project. The match does not imply a 50/50 split in shares.
Median	The portion of a divided highway separating the traveled ways for traffic in opposite directions.
MPO	Metropolitan Planning Organization – The organization designated by the governor as responsible for transportation planning and programming activities, as required under federal law, in an urbanized area. The MPO serves as the forum for cooperative decision making by a regional board made up of local elected officials and city and county staff. The MPO is responsible for development of the federal long-range transportation plan and multi-year funding programs, and the selection and approval of transportation projects using federal funds.
NAAQS	National Ambient Air Quality Standards – Standards set by the federal EPA for the maximum levels of air pollutants that can exist in the outdoor air without unacceptable effects on human health or the public welfare.
NEPA	National Environmental Policy Act (1969) – Federal legislation establishing the requirements and procedures for documenting the environmental impacts of federally funded projects, including transportation improvements.
NHS	National Highway System – Required under Section 1006 for ISTEA, the NHS is a 155,000-mile system comprised of major highways serving interstate and interregional travel, connecting major population centers, ports, airports, public transportation facilities, major travel destinations, international border crossings, and major military installations.
NTN	National Truck Network – This network is comprised of the National System of Interstate and Defense Highways. Sometimes referred to as just National Network (NN). This network is part of the larger Surface Transportation Assistance Act (STAA) network that also includes Terminal Access (TA) and Service Access (SA) routes.
North-South Funding Split	This funding split is a component of the statewide allocation mechanism for transportation funding. The current allocation of funds provides Northern California - 40% and Southern California - 60%.
OWP	Overall Work Program – The document prepared by the RTPA/MPO that describes and details the planning and programming activities to be conducted in a fiscal year. The OWP serves as the documentation for the federal and state planning grants which finance the program.
Park and Ride Lots	Parking lots along highway corridors that allow for drivers to park their car/truck and ride with another individual or use a transit system, reducing the number of vehicles on the road. Some lots may also offer bicycle lockers.
Platoon	A group of vehicles traveling together as a group, either voluntarily or

	involuntarily because of signal control, geometrics, lack of passing opportunities or other factors.
Programming	The process of scheduling high-priority projects for development and implementation.
PID	Project Initiation Document – A document required for all projects before it can be considered for funding or programming into the STIP or the SHOPP. The PID may be any of a number of documents including a Project Study Report (PSR), Project Study Report/Project Development Support (PSR/PDS), Project Scope and Summary Report (PSSR), or a Noise Barrier Scope and Summary (NBSSR).
PDT	Project Development Team – Usually a multi-agency team of planners, engineers, and local government officials working together to develop a PSR by evaluating the needs and alternatives of a potential transportation deficiency. The alternatives available to the team will nearly always include the “no build” option.
PR	Project Report – A report summarizing the feasibility of needs, alternatives, costs, etc., of a proposed transportation project affecting state transportation facilities. Often project reports consist of a transmittal letter and a draft environmental document.
PSR	Project Study Report – An engineering report documenting the agreement on project scope, schedule, and estimated cost so a project can be considered for future programming in the STIP.
PSR(PDS)	Project Study Report/Project Development Study – A PID document that provides less detail than a standard PSR. The purpose of this study is to focus on cost estimates for the support effort needed to obtain environmental approval and begin design work.
PSSR	Project Scope Summary Report – A report used to define project scope and cost and to approve resurfacing, restoration, and rehabilitation work proposed as structure and pavement rehabilitation projects. There are five types of projects documented by PSSRs including pavement rehabilitation, capital outlay preventative maintenance, structure rehabilitation, seismic retrofit, and urban freeway access.
PTSF	Percent time spent following – A performance measure used to estimate level of service on a two-lane highway. It is the average percentage of the travel time that vehicles must travel in platoons behind slower vehicles due to the inability to pass.
Public Participation	The active and meaningful involvement of the public in the development of transportation plans and programs.
Ramp metering	A traffic management strategy that utilizes a system of traffic signals on freeway entrance and connector ramps to regulate the volume of traffic entering a freeway corridor. This is to maximize the efficiency of the freeway and thereby minimize the total delay in the transportation corridor.
Relinquishment	A transfer of the State's rights, title and interest in and to a highway, or portion thereof, to a city or county.
RIP	Regional Improvement Plan – One of the two broad programs making up the STIP. The RTIP is funded from 75% of new STIP funds and further subdivided by formula into county shares. RTPAs/MPOs program RIP funds

	to projects through the RTIP process.
RSTP	Regional Surface Transportation Program – The portion of the federal Surface Transportation Program (STP) that is directly allocated to the regions. RSTP funds are programmed by the RTPA/MPO in the FTIP.
RTIP	Regional Transportation Improvement Program – The RTIP is prepared and adopted biennially by the RTPA/MPO. The RTIP includes projects from the Regional Transportation Plan (RTP) Action Element nominated for state highway, transit and rail funds. The adopted RTIP is submitted to the CTC for inclusion in the State Transportation Improvement plan (STIP).
RTP	Regional Transportation Plan – the RTP is a long-range plan (20-year horizon) to improve a region's state highways; local streets, roads and bikeways; airport and marine facilities; transit, paratransit, and passenger rail services. As a guide for the development of these facilities, the RTP describes the priorities for making investments in a region's transportation system.
RTPA	Regional Transportation Planning Agency – The county level, or multi-county level, agency responsible under state law for the preparation of RTPs and allocation of funds. RTPAs can be local transportation commissions, Councils of Governments, MPOs, or statutorily created agencies.
Right-of-Way	Real estate acquired for transportation purposes, which includes the facility itself (highway, fixed guideway, etc.) as well as associated uses (maintenance structures, drainage systems, roadside landscaping, etc.).
Roadbed	Those portions of the roadway extending from curb line to curb line or shoulder line to shoulder line. Divided highways are considered to have two roadbeds.
Roadway Characteristics	The geometric characteristics of the roadway segment under study, including the number and width of lanes, right-shoulder lateral clearance, interchange/intersection spacing, vertical alignment, and lane configurations.
RWIS	Road Weather Information System – This ITS system collects pavement temperature, visibility, wind speed and direction, and precipitation data and presents the data in a usable format to transportation system operators, for the public.
Rural	An area with a population under 5000.
Rural Local	Roadways that provide access to adjacent lands and provide service to travel over relatively short distances as compared to collectors or other highway systems.
Rural Major Collector	Roadways that provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance, nearby larger towns or cities, or with routes of higher classification. These roads frequently serve the more important intra-county travel corridors.

Rural Minor Arterial	Roadways that link cities and larger towns with major traffic generators that may attract travel over similarly long distances and form an integrated network of interstate and inter-county service. These roads are to be spaced at such intervals, consistent with population density, so that all developed areas of the state are within a reasonable distance of an arterial highway. They are also to provide service to corridors with trip lengths and travel density greater than those predominantly served by rural collector or local systems. These routes should be expected to provide for relatively high overall travel speeds, with minimum interference to through movement.
Rural Minor Collector	Roadways spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road. These roads are also to provide service to the remaining smaller communities and link the locally important traffic generators with their rural hinterland.
Rural Other Principal Arterial	All non-Interstate Principal Arterials which will serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel. These roadways will also serve all urban areas of 50,000 and over population and a large majority of those with population of 25,000 and over. They should also provide an integrated network without stub connections except where unusual geographic or traffic flow conditions dictate otherwise.
SAFE	Service Authority for Freeway Emergencies – State legislation (SB-1199), enacted in 1985, authorized the establishment of local SAFEs for the purposes of installing, maintaining, and operating a network of motorist-aid call boxes. The program is funded by a \$1 per year fee on all registered motor vehicles within the county.
SAFETEA-LU	Federal legislation enacted in August 2005 as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users. SAFETEA-LU authorizes the Federal Surface Transportation Programs (FSTP) for highways, highway safety, and transit for the 6-year period from 2003-2009. This legislation superseded TEA-21 but maintained its basic structure and built on its key initiatives.
Scenic Corridor	A band of land that is visible from and generally adjacent to, but outside of, the highway right-of-way having scenic, historical, or other aesthetics characteristics.
Scenic Highway	An officially designated portion of the State Highway System traversing areas of outstanding scenic beauty and/or historic character. Designations include: All-American Road, National Scenic Byway, U.S. Forest Service Byway, Historic Highway and State Scenic Highway.
Scoping	An activity of the lead agency in the environmental process ensuring the inclusion of all significant issues and maximum participation for the development of the EIR/EIS.
Segment	A portion of the highway identified for analysis that is homogenous in nature.
SB-45 (1997)	Senate Bill 45 of the 1997 California State Legislature – State legislation enacted in 1997 that substantially changed the process for allocating state and federal transportation funds through the STIP. The major changes include consolidation of several prior STIP funding programs into two broad programs, increased programming flexibility, authority, and accountability for regional agencies and full accounting of all project costs in the STIP. SB-45 initially shortened the STIP period from 7 to 4 years. However, a five-year program was established with the 2002 STIP under Assembly Bill (AB) 2928.

Shoulder	The portion of the roadway contiguous with the traveled way for accommodating stopped vehicles, for emergency use, and for lateral support of the roadbed base and surface courses.
SHOPP	State Highway Operation and Protection Plan – A program of projects adopted by Caltrans to preserve and protect the state highway system and provides for its safe operation. SHOPP projects include traffic safety, pavement and bridge rehabilitation, seismic retrofit, earthquake and storm damage repair and traffic operational improvements. These projects are maintained on a four-year list that is updated every two years.
SIP	State Implementation Plan – A document prepared by each State, with input from local Air Pollution Control Districts (APCDs) describing the existing air quality conditions and measures that will be taken to attain and maintain national ambient air quality standards (NAAQS). In California, the California Air Resources Board (CARB or ARB) prepares the SIP.
SR	State Route – State highways within the State, other than Interstate and US routes, which serve interstate and intrastate travel. These highways can be freeways, expressways or conventional highways depending on their access control.
SRTP	Short-Range Transit Plan – The SRTP is a five-year comprehensive plan required of all transit operators, usually within urban areas, by federal and regional transportation funding agencies.
STA	State Transit Assistance – Funds allocated to the county and administered by the RTPA/MPO pursuant to the Transportation Development Act (TDA) that are designated for transportation planning and mass transportation purposes specified by the legislature.
STAA Network	Surface Transportation Assistance Act Network – This network was created by federal legislation in 1982 and is made up of the National Network (NN), Terminal Access (TA) and Service Access (SA) routes. This legislation requires states to allow large trucks on these specific routes.
STIP	State Transportation Improvement Program – A statewide program of transportation projects adopted biennially by the CTC that governs the expenditure of state revenues for transportation. The STIP consists of transportation projects proposed in the RTIPs and ITIP, and approved by the CTC.
STP	Surface Transportation Program – A flexible funding program established under ISTEA and continued under TEA-21, which maybe used for a broad range of transportation improvements.
STRAHNET	Strategic Highway Network - a federal designation for the system of highways providing access to major U.S. military installations.
TA Route	Terminal Access Route – Portions of State routes and local roads that can accommodate STAA trucks. TA routes allow STAA trucks to (1) travel between NTN routes, (2) reach a truck's operating facility, or (3) reach a facility where freight originates, terminates, or is handled in the transportation process.
TASAS	Traffic Accident Surveillance and Analysis System – A system providing a detailed list or summary of accidents occurring on highways, ramps, or intersections in the State Highway System. Accident histories can be accessed by location, highway characteristics, accident data codes or any

	combination of these by State safety engineers for evaluation and recommendations.
TAZ	Traffic Analysis Zone – a geographical area delineated for the purpose of transportation modeling. TAZs are the major unit of transportation modeling analysis and are delimited on the basis of socio-economic, topographic, political, and transportation facilities information.
TCM	Transportation Control Measure – Any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions.
TDA	Transportation Development Act – As contained in Section 99200 of the Public Utilities Code, the TDA provides two major sources of funding for public transportation through regional planning and programming agencies: the county Local Transportation Fund (LTF), which is derived from ¼ cent of the retail sales tax collected statewide and the State Transit Assistance (STA) funds which are for transportation planning purposes as specified by the legislature.
TDM	Transportation Demand Management – The implementation of measures that encourage people to change their mode of travel, travel during off-peak periods, or not make the trip alone at all, e.g., ridesharing, telecommuting, pricing incentives and parking management.
TDP	Transit Development Program – Federal Transit Administration (FTA) requires a TDP be prepared for all areas applying for TDP capital or operating grants. The required TDP should provide for the planning and coordination of all public transit systems in an area, and should cover a planning period of five years. The TDP must be consistent with the RTP and the RTIP. TDPs are typically prepared for rural areas, while SRTPs are prepared for individual transit operations in urban areas.
TE	Transportation Enhancements – A program under ISTEA and TEA-21 which sets aside a portion of Surface Transportation Program (STP) funds for several categories of projects whose purpose is to enhance the transportation system. Enhancement funds can be used for bicycle and pedestrian facilities, landscaping and scenic highway programs, restoration of historic rail stations, and various other purposes.
TEA-21	Transportation Equity Act for the 21st Century – Federal legislation enacted June 9, 1998, as Public Law 105-178. TEA-21 authorizes the Federal Surface Transportation Programs (FSTP) for highways, highway safety, and transit for the 6-year period from 1998-2003. This legislation superseded the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), but maintained its basic structure and built on its key initiatives.
TIP	Transportation Improvement Program – Any of a number of programs such as RTIP, STIP, FTIP, etc.
TMA	Transportation Management Area – A region which is subject to certain planning requirements under ISTEA. Any urbanized area with a population of more than 200,000 is automatically a TMA. Other urbanized areas may request designation as a TMA.
TMC	Traffic Management Center – A building, or portion of a building, that serves as a focal point to monitor traffic and road conditions, as well as train

	and transit schedules, and airport and shipping advisories. From this point, information about accidents, road closures and emergency notifications is relayed to the public.
Transportation Stakeholders	In transportation, stakeholders include FHWA, CTC, RTPA/MPO(s), transportation departments and commissions, cities and counties, Native American Tribal Governments, economic development and business interests, resource agencies, interest groups, the public, the Legislature, and the Governor.
TSDP	Transportation System Development System – A TSDP identifies a reasonable, comprehensive and effective range of transportation improvements on State highways. It is Caltrans statement of priorities for improvements after negotiating and joint planning efforts with regional agencies.
TSM	Transportation System Management – TSM is (1) a process orientated approach to solving transportation problems considering both long and short-range implications, and (2) a services and operations process, in which low capital, environmentally-responsive, efficiency-maximizing improvements are implemented on existing facilities.
TTAC	Technical Transportation Advisory Committee - A regional advisory committee that serves as a communication link between a RTPA/MPO and all other transportation agencies within a county or specified area. TTACs review and make policy recommendations on fiscal matters, fund allocations, special studies, and planning documents for submittal to the appropriate board(s). The committee will usually consist of representatives from the cities, county, transit agencies, APCD, RTPA/MPO, and Caltrans.
TPAC	Technical Planning Advisory Committee – TPACs are often regional planning advisory committees comprised of planning directors from the county and cities and act as a communication link between the planning agencies and the RTPA/MPO.
Urban	A population concentration between 5000 to 50,000.
Urbanized Area	A population concentration of at least 50,000 inhabitants, generally consisting of a central city and the surrounding, closely settled contiguous territory (suburbs).
Urban Collector	The collector street system provides land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. Conversely, the collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. In the central business district, and in other areas of like development and traffic density, the collector system may include the street grid, which forms a logical entity for traffic circulation.
Urban Local	Comprised of all facilities not on one of the higher systems. It serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes. Service to through traffic movement usually is deliberately discouraged.

<p>Urban Minor Arterial</p>	<p>Interconnects with and augments the urban principal arterial system and provides service to trips of moderate length at a somewhat lower level of travel mobility than principal arterials. This system also distributes travel to geographic areas smaller than those identified with the higher system. The minor arterial street system includes all arterials not classified as a principal and contains facilities that place more emphasis on land access than the higher system, and offers a lower level of traffic mobility. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods. This system should include urban connections to rural collector roads where such connections have not been classified as urban principal arterials.</p>
<p>Urban Other Principal Arterial</p>	<p>This system consists of all non-Interstate principal arterials.</p>
<p>Urban Principal Arterial – Interstate</p>	<p>The interstate system consists of all non-Interstate principal arterials.</p>
<p>Urban Principal Arterial – Other Fwys/Expwys</p>	<p>Connecting links of non-Interstate rural principal arterials. Connecting links of rural minor arterials.</p>
<p>US DOT</p>	<p>United States Department of Transportation – The principal direct funding Federal agency for transportation facilities and programs. Includes the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the Federal Railroad Administration (FRA), and other agencies.</p>
<p>US Route</p>	<p>A network of highways of statewide and national importance. These highways can be freeways, expressways, or conventional highways.</p>

Appendix B

State Highway System in Santa Barbara County

State Route 154 PM 0.02/32.84



PM 0.02
Junction
US 101

Los Olivos

Buellton

Santa Ynez

Solvang

Indian
Reservation

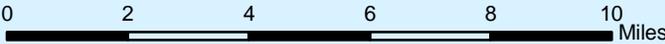
Lake
Cachuma

Pacific

Ocean

PM 32.84
State Street

Santa Barbara

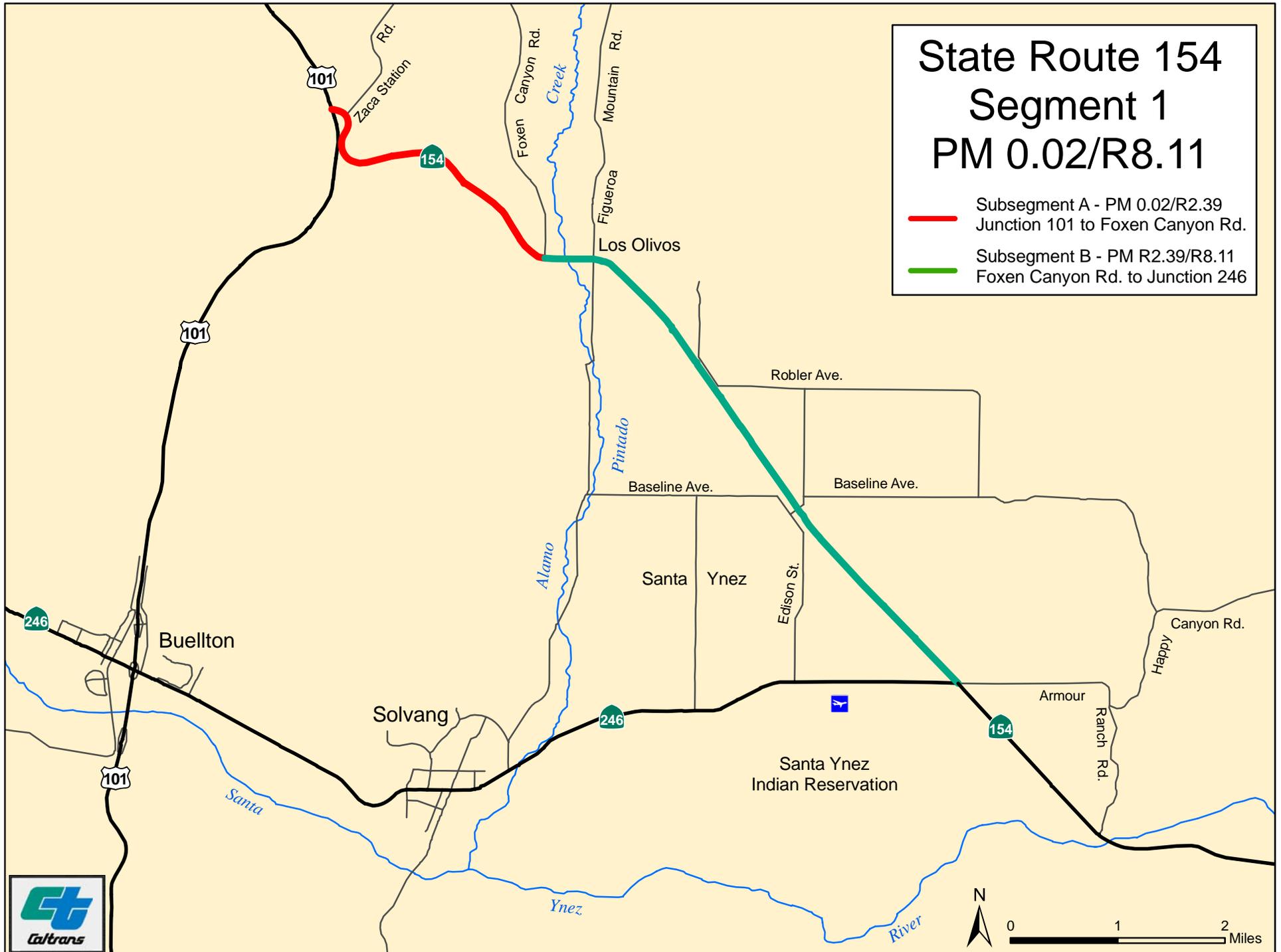


Appendix C

Route Segment Data Sheets and Maps

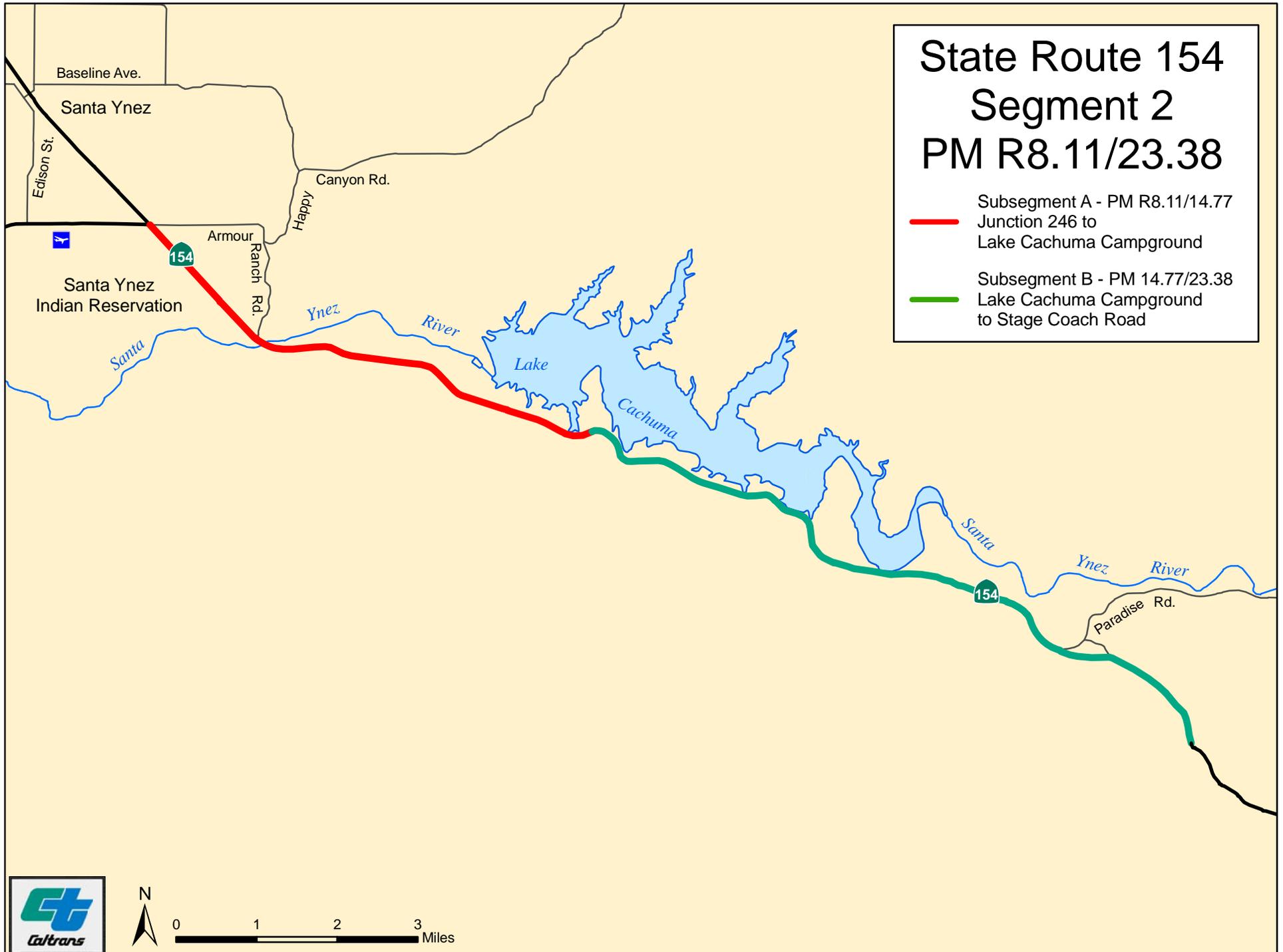
State Route 154 Segment 1 PM 0.02/R8.11

-  Subsegment A - PM 0.02/R2.39
Junction 101 to Foxen Canyon Rd.
-  Subsegment B - PM R2.39/R8.11
Foxen Canyon Rd. to Junction 246



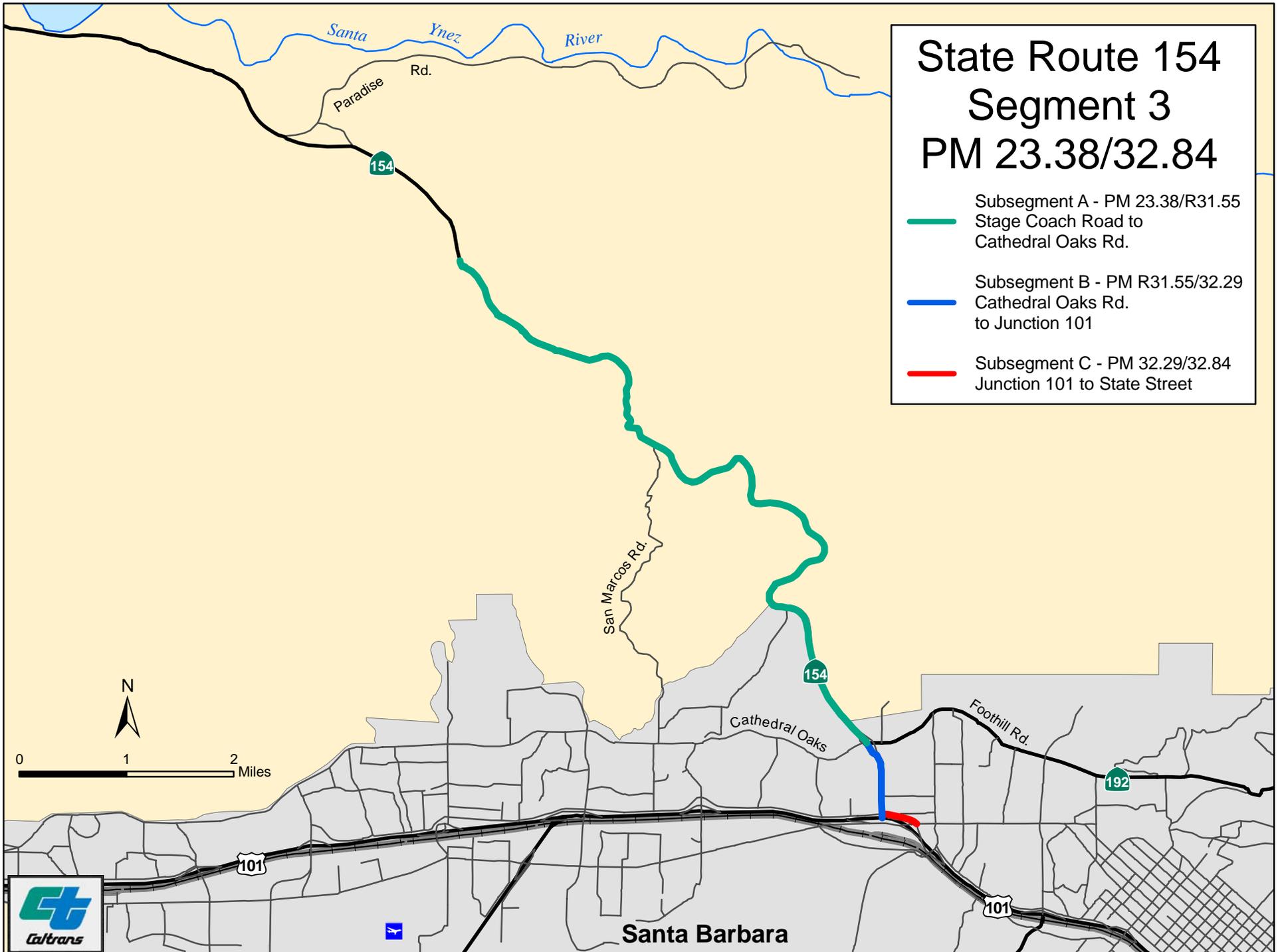
State Route 154 Segment 2 PM R8.11/23.38

- Subsegment A - PM R8.11/14.77
Junction 246 to
Lake Cachuma Campground
- Subsegment B - PM 14.77/23.38
Lake Cachuma Campground
to Stage Coach Road



State Route 154 Segment 3 PM 23.38/32.84

-  Subsegment A - PM 23.38/R31.55
Stage Coach Road to
Cathedral Oaks Rd.
-  Subsegment B - PM R31.55/32.29
Cathedral Oaks Rd.
to Junction 101
-  Subsegment C - PM 32.29/32.84
Junction 101 to State Street



Santa Barbara

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>1A</i>	
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Segment Location				
	PM start	PM end	Length	Description
	0.015	R2.39	2.38	Northern US101 Junction/Foxen Canyon Rd.

Roadbed Information					
	Number of Lanes	2		Lane Width	12
	Terrain	hilly		ROW Width	100-150
				Concept ROW Width	100-150
	Signalized Intersections	0		Shoulder Width	8
	Bike Facilities	Narrow		Median Width	0 ft.

Route Designations	
Functional Classification	Minor Arterial
Facility Type	Conventional/Expressway Highway
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

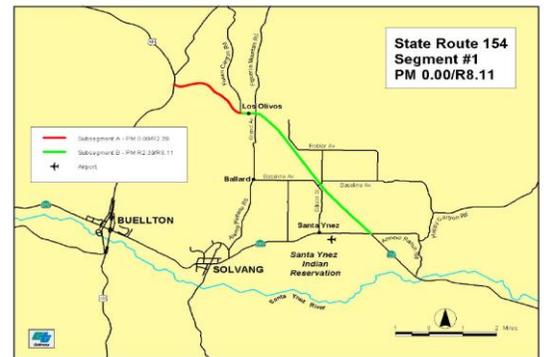
Operating Characteristics							
Through-traffic flow Analysis		ADT		V/C Ratio		LOS	
		2008	2030	2008	2030	2008	2030
		9,100	16,041	0.37	0.43	C-E	D
		Ann Growth Rt 2004-2030		2.26%	Peak Hr Volume (2008)		1,150
		Directional Split		60%	Trucks In Peak Hour		5.0%
Signalized Intersection / Delay Analysis		Location	Delay Time (seconds)		LOS		
			W-Bound	E-Bound	2004	2025	
		No Signalized Intersections					
		SEGMENT DELAY--Current		22	9.5		

Accident Data				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	0.410	0.720	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.000	0.025	
	Fatality & Injury Collision Rate	0.120	0.320	

Proposed Concept	
Proposed Transportation Concept	Two Lane Conventional / Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

STATE ROUTE 154 SANTA BARBARA CO. – SEGMENT 1A

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
1A	0.00	R2.39	Northern Junction with US 101 to Foxen Canyon Road
Current Delay – 12.5 sec E Bound, 20.8 sec W Bound			



SEGMENT FEATURES		
Environmental Constraints:	<ul style="list-style-type: none"> ▪ Agricultural and grazing land ▪ Scenic Highway 	
Multi-modal Facilities:	<ul style="list-style-type: none"> ▪ Class II and III bicycle facilities for most of segment 	<ul style="list-style-type: none"> ▪ Santa Ynez Valley Transit stops within a quarter mile of SR154 at Los Olivos
Land Uses along Corridor :	<ul style="list-style-type: none"> ▪ Agriculture ▪ Retail sales/restaurants 	
Major Traffic Generators:	<ul style="list-style-type: none"> ▪ Local traffic from towns of Los Olivos and Ballard ▪ Commuter and tourist traffic for US 101 connections ▪ Access Chumash Reservation gaming ▪ Wineries in Santa Ynez Valley ▪ Local grammar school 	

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE
<ul style="list-style-type: none"> ▪ Speed of traffic in area around Los Olivos and elementary school (community felt need) ▪ Some turnouts for side streets could be improved (Foxen Lane—right turn channelization)

RECOMMENDED ACTIONS
<ul style="list-style-type: none"> □ Limit access points to convert more of the conventional highway portions into expressway. □ Consolidate access with increased development and consider various operational improvements including roundabouts. □ Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists. □ Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. □ Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. □ Promote the use of Transportation System Management and Transportation Demand Management measures by all stakeholders. □ Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>1B</i>	
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Segment Location				
	PM start	PM end	Length	Description
	R2.39	R8.11	5.720	Foxen Canyon Rd./Jct. SR 246

Roadbed Information					
	Number of Lanes	2		Lane Width	11-12 ft.
	Terrain	flat		ROW Width	100-150
				Concept ROW Width	100-150
	Signalized Intersections	0		Shoulder Width	0-5 ft.
	Bike Facilities	Narrow		Median Width	0 ft.

Route Designations	
Functional Classification	Minor Arterial
Facility Type	Conventional Highway/Expressway
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

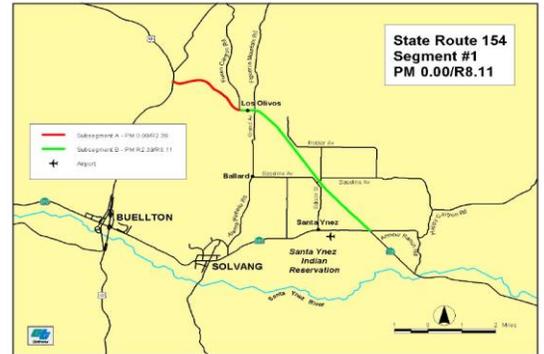
Operating Characteristics						
Through-traffic flow Analysis	ADT		V/C Ratio		LOS	
	2008	2030	2008	2030	2008	2030
	9,100	16,041	0.42	0.68	E	E
	Ann Growth Rt 2004-2030		2.26%	Peak Hr Volume (2008)		980
	Directional Split		60%	Trucks In Peak Hour		5.0%
Signalized Intersection / Delay Analysis	Location		Delay Time (seconds)		LOS	
			W-Bound	E-Bound	2004	2025
	No Signalized Intersections					
	SEGMENT DELAY--Current		20.8	12.5		

Accident Data				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	0.630	0.600	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.016	0.025	
	Fatality & Injury Collision Rate	0.370	0.270	

Proposed Concept	
Proposed Transportation Concept	Two Lane Conventional/Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

STATE ROUTE 154 SANTA BARBARA CO. - SEGMENT 1B

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
1B	R2.39	R8.11	Foxen Canyon Road to Jct. SR 246
Current Delay – 12.5 sec E Bound, 20.8 sec W Bound			



SEGMENT FEATURES	
Environmental Constraints:	<ul style="list-style-type: none"> ▪ Agricultural and grazing land ▪ Scenic Highway ▪ Community desire to retain rural feel of area
Multi-modal Facilities:	<ul style="list-style-type: none"> ▪ Class II and III bicycle facilities for most of segment ▪ Santa Ynez Airport • Transit access exists at Baseline and Los Olivos for Santa Ynez Valley Transit • Park and Ride lot at Junction of SR246 and SR 154 currently unserved by transit
Land Uses along Corridor :	<ul style="list-style-type: none"> ▪ Agriculture/Ranching ▪ Retail sales
Major Traffic Generators:	<ul style="list-style-type: none"> ▪ Local traffic from towns of Los Olivos and Ballard ▪ Commuter and tourist traffic for US 101 connections ▪ Access Chumash Reservation gaming ▪ Wineries in Santa Ynez Valley

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE
<ul style="list-style-type: none"> ▪ Speed of traffic in area around Los Olivos and elementary school (community felt need) ▪ Some turnouts for side streets could be improved (limit Roblar to right-in, right-out) ▪ Improve SR 154/246 Intersection (project underway) ▪ Parallel routes need developing

RECOMMENDED ACTIONS
<ul style="list-style-type: none"> □ Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists. □ Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. □ Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. □ Promote the use of Transportation System Management and Transportation Demand Management measures by all stakeholders. □ Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>2A</i>	
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Segment Location				
	PM start	PM end	Length	Description
	R8.11	14.770	6.660	Jct. SR 246 to Lake Cachuma Recreational Area

Roadbed Information					
	Number of Lanes	2-3		Lane Width	12
	Terrain	flat		ROW Width	100-150
	Farmland	Scenic		Concept ROW Width	100-150
	Signalized Intersections	0		Shoulder Width	3-8 ft.
	Bike Facilities	Narrow		Median Width	0 ft.

Route Designations	
Functional Classification	Minor Arterial
Facility Type	Conventional Highway/Expressway
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

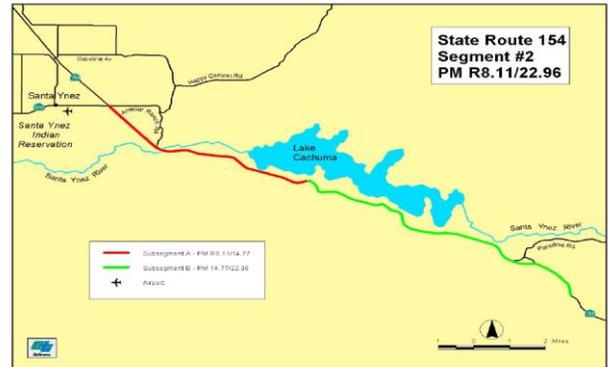
Operating Characteristics						
Through-traffic flow Analysis	ADT		V/C Ratio		LOS	
	2008	2030	2008	2030	2008	2030
	15,600	2,490	0.42	0.68	E	F
	Ann Growth Rt 2004-2030		2.33%	Peak Hr Volume (2008)		1,600
	Directional Split		60%	Trucks In Peak Hour		3.0%
Signalized Intersection / Delay Analysis	Location		Delay Time (seconds)		LOS	
			W-Bound	E-Bound	2004	2025
	No Signalized Intersections					
	SEGMENT DELAY--Current		0	0		

Accident Data				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	0.310	0.750	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.035	0.026	
	Fatality & Injury Collision Rate	0.130	0.340	

Proposed Concept	
Proposed Transportation Concept	Two Lane Conventional/Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

STATE ROUTE 154 SANTA BARBARA CO. - SEGMENT 2A

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
2A	R8.11	14.77	Jct. SR 246 to Lake Cachuma Recreation Area
Current Delay – 0 sec E Bound, 0 sec W Bound			



SEGMENT FEATURES

Environmental Constraints:	<ul style="list-style-type: none"> ▪ Farm land at segment beginning ▪ Scenic Highway
Multi-modal Facilities:	<ul style="list-style-type: none"> ▪ Class II and III bicycle facilities for most of segment ▪ Santa Ynez Airport ▪ No transit operates nearby or along segment ▪ Park and Ride lot nearby on SR 246 used by commuters on SR 154
Land Uses along Corridor :	<ul style="list-style-type: none"> ▪ Agriculture/Ranchland ▪ Recreational areas ▪ Open space
Major Traffic Generators:	<ul style="list-style-type: none"> ▪ Through access for commuters, tourist use ▪ Lake Cachuma Recreational Area ▪ Access to SR 246 and Chumash Reservation, Solvang, Buellton, Highway 101

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE

<ul style="list-style-type: none"> ▪ Segment 2A is a two lane facility with an EB passing lane, with tourist/commuter through traffic and visitors to Lake Cachuma. ▪ Unchannelized driveways; mitigations should include left-turn channelization at Armour Ranch Road. ▪ Narrow or non-existent shoulders.

RECOMMENDED ACTIONS

<ul style="list-style-type: none"> □ Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists. □ Designate SR 154 as Conventional Highway. Submit change to California Transportation Commission (CTC) □ Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. □ Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. □ Promote the use of Transportation System Management and Trans. Development Management measures by all stakeholders. ▪ Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>3A</i>	
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Segment Location				
	PM start	PM end	Length	Description
	23.380	R31.550	8.170	Cold Spring Arch Bridge/Jct SR 192

Roadbed Information					
	Number of Lanes	2-4		Lane Width	10-13
	Terrain	rugged		ROW Width	100-150
	Farmland	Scenic		Concept ROW Width	100-150
	Signalized Intersections	0		Shoulder Width	1-8
	Bike Facilities	Narrow		Median Width	0-4

Route Designations	
Functional Classification	Minor Arterial/Principal Arterial
Facility Type	Two-Four Lane Conventional/Expressway
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

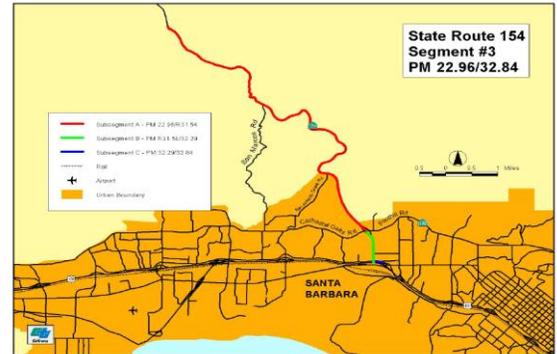
Operating Characteristics						
Through-traffic flow Analysis	ADT		V/C Ratio		LOS	
	2008	2030	2008	2030	2008	2030
	16,600	20,383	0.83	1.23	C	F
	Ann Growth Rt 2004-2030		1.86%	Peak Hr Volume (2008)		1,800
	Directional Split		60%	Trucks In Peak Hour		2.0%
Signalized Intersection / Delay Analysis	Location		Delay Time (seconds)		LOS	
			W-Bound	E-Bound	2004	2025
	No Signalized Intersections					
	SEGMENT DELAY--Current		0.8	23.5		

Accident Data				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	1.020	1.150	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.015	0.027	
	Fatality & Injury Collision Rate	0.480	0.540	

Proposed Concept	
Proposed Transportation Concept	2-4 Lane Conventional / Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

STATE ROUTE 154 SANTA BARBARA CO. – SEGMENT 3A

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
3A	22.96	R31.54	Cold Spring Arch Bridge/ Jct SR 192
Current Delay—23.5 sec E Bound, .08 sec W Bound			



SEGMENT FEATURES		
Environmental Constraints:	<ul style="list-style-type: none"> ▪ Rugged terrain ▪ Scenic Highway status ▪ Susceptible to slides 	
Multi-modal Facilities:	<ul style="list-style-type: none"> ▪ Class II bicycle facilities for most of segment, widths 1' to 4' 	<ul style="list-style-type: none"> ▪ No bus service or rail facilities
Land Uses along Corridor :	<ul style="list-style-type: none"> ▪ Open space ▪ Recreational areas/scenic viewsheds ▪ Limited residential use 	
Major Traffic Generators:	<ul style="list-style-type: none"> ▪ Through access for commuters, tourist use 	

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE
<ul style="list-style-type: none"> ▪ Segment 3A is a 2 lane facility with an EB passing lane near the beginning and a WB passing lane at the end. Traffic is primarily commuter and tourist trips through the segment. ▪ Bike lanes are striped but infrequently standard in width, and shoulders are few. ▪ The rugged and mountainous terrain frequently slows uphill traffic, with few passing opportunities existing. ▪ Opportunities exist for channelization to improve safe turns at intersections, and to widen shoulders where feasible.

RECOMMENDED ACTIONS
<ul style="list-style-type: none"> □ Continue to implement channelization, passing lane projects and other operational improvements when opportunities arise. Include 8 foot shoulders to accommodate bicyclists. □ Designate SR 154 as Conventional Highway. Submit change to California Transportation Commission (CTC) □ Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. □ Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. □ Promote the use of Transportation System Management and Trans. Development Management measures by all stakeholders □ .Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>3B</i>	
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<i>Segment Location</i>				
	PM start	PM end	Length	Description
	R31.550	32.290	0.740	Jct SR 192/Southern Jct US 101

<i>Roadbed Information</i>					
	Number of Lanes	2-4		Lane Width	11-14
	Terrain	flat		ROW Width	100-150
	Residential			Concept ROW Width	100-150
	Signalized Intersections	0		Shoulder Width	0-8 ft.
	Bike Facilities	Narrow		Median Width	0

<i>Route Designations</i>	
Functional Classification	Principal Arterial
Facility Type	Expressway/Conventional Highway
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

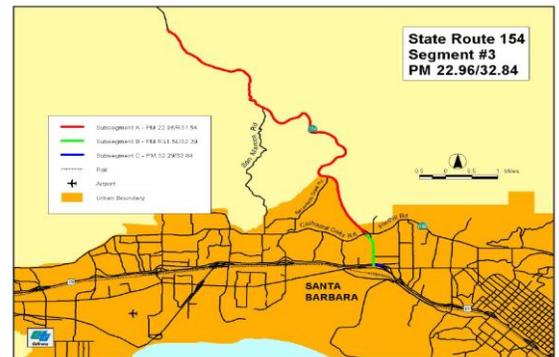
<i>Operating Characteristics</i>						
Through-traffic flow Analysis	ADT		V/C Ratio		LOS	
	2008	2030	2008	2030	2008	2030
	20,500	19,871	0.53	0.69	C	E
	Ann Growth Rt 2004-2030		0.65%	Peak Hr Volume (2008)		1,750
	Directional Split		60%	Trucks In Peak Hour		2.0%
Signalized Intersection / Delay Analysis	Location		Delay Time (seconds)		LOS	
			W-Bound	E-Bound	2004	2025
	Signalized Intersections				No Data	No Data
	SEGMENT DELAY--Current		46.2	40.5		

<i>Accident Data</i>				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	1.070	0.520	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.000	0.005	
	Fatality & Injury Collision Rate	0.380	0.210	

<i>Proposed Concept</i>	
Proposed Transportation Concept	Four Lane Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

**STATE ROUTE 154
SANTA BARBARA CO. - SEGMENT 3B**

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
3B	R31.54	32.29	Jct SR 192/S Junction 101
Current Delay – 40.5 sec E Bound, 22.0 sec W Bound			



SEGMENT FEATURES	
Environmental Constraints:	<ul style="list-style-type: none"> Scenic Highway status
Multi-modal Facilities:	<ul style="list-style-type: none"> Class II bicycle facilities for most of segment, widths 1' to 4' Santa Barbara MTD convenient to E end
Land Uses along Corridor :	<ul style="list-style-type: none"> Limited residential use Open space
Major Traffic Generators:	<ul style="list-style-type: none"> Through access for commuters, tourist use Access to SR 192 service areas

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE
<ul style="list-style-type: none"> Segment 3B is a 4 lane freeway with center turn lanes at the E end. Traffic is primarily commuter and tourist trips with some traffic entering and exiting at SR 192 to serve primarily residential traffic. An opportunity exists for lengthening the free right turn channelization going from El Camino Real west onto SR 154.

RECOMMENDED ACTIONS
<ul style="list-style-type: none"> Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. Promote the use of Transportation System Management and Trans. Development Management measures by all stakeholders .Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Caltrans District 5 - Segment Data Sheet

County	<i>Santa Barbara</i>	Route	<i>154</i>		<i>3C</i>	
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Segment Location				
	PM start	PM end	Length	Description
	32.285	32.840	0.555	Southern Jct US 101/State Street, Santa Barbara

Roadbed Information					
	Number of Lanes	4		Lane Width	12 ft.
	Terrain	flat		ROW Width	
	Commercial			Concept ROW Width	
	Signalized Intersections	0		Shoulder Width	0-5 ft.
	Bike Facilities	Narrow		Median Width	0 ft.

Route Designations	
Functional Classification	Principal Arterial
Facility Type	Conventional
Trucking Designations	California Legal only from U.S. 101
National Highway System	No
Interregional Road System	Yes
Focus Route	No

Operating Characteristics						
Through-traffic flow Analysis	ADT		V/C Ratio		LOS	
	2008	2030	2008	2030	2008	2030
	17,000	N/A	N/A	N/A	N/A	N/A
	Ann Growth Rt 2002-2025		N/A	Peak Hr Volume (2008)		1,450
	Directional Split		N/A	Trucks In Peak Hour		N/A
Signalized Intersection / Delay Analysis	Location		Delay Time or V/C		LOS	
			2004	2030	2004	2030
	SR 154/Calle Real		0.665	n/a	B	n/a
	SR 154/State St.		0.485	n/a	A	n/a
	SEGMENT DELAY--Current		n/a	n/a		

Accident Data				
		Segment	Statewide	3-year period evaluated
	Total Collision Rate	0.680	2.550	Rates are incidents per million vehicle miles for the 3-year period from: 1 Dec 2005 to 30 Nov 2008
	Fatality Collision Rate	0.136	0.026	
	Fatality & Injury Collision Rate	0.410	0.910	

Proposed Concept	
Proposed Transportation Concept	Four Lane Expressway
Comments: Make operational improvements as opportunities occur; promote TDM/TSM & Transit	

**STATE ROUTE 154
SANTA BARBARA CO. - SEGMENT 3C**

SEGMENT SPECIFICATIONS			
Segment	Begin	End	Description
3C	32.29	32.84	S. Junction 101/State Street
Current Delay – Not collected, urban segment			



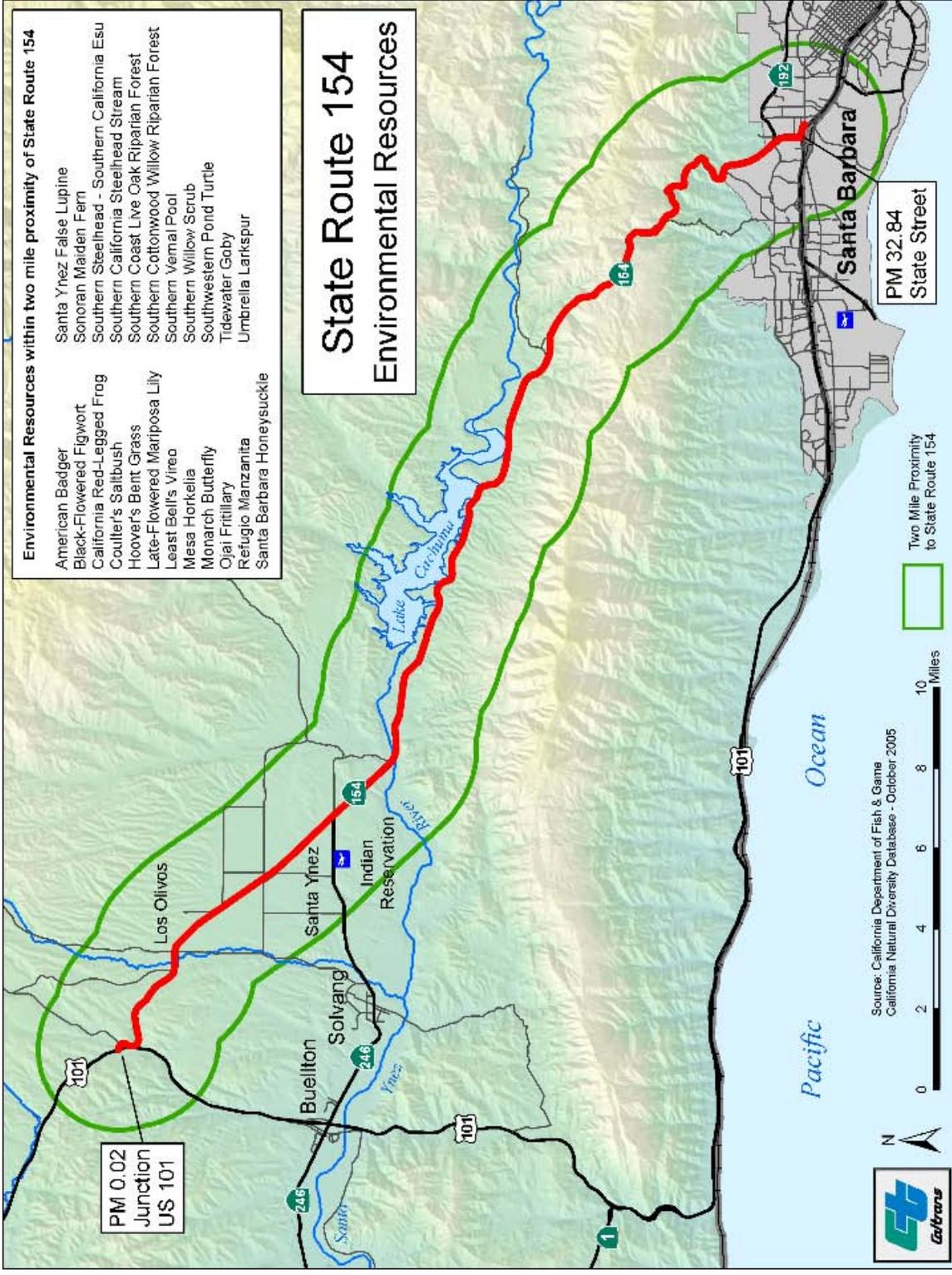
SEGMENT FEATURES		
Environmental Constraints:	<ul style="list-style-type: none"> ▪ Fully developed adjacent properties 	
Multi-modal Facilities:	<ul style="list-style-type: none"> ▪ Class II bicycle facilities ▪ On bus route 	<ul style="list-style-type: none"> ▪ Santa Barbara MTD service
Land Uses along Corridor :	<ul style="list-style-type: none"> ▪ Commercial/Retail frontage, backed by residential uses 	
Major Traffic Generators:	<ul style="list-style-type: none"> ▪ Santa Barbara downtown ▪ Employment centers in Goleta 	

IDENTIFIED DEFICIENCIES – EXISTING AND FUTURE
<ul style="list-style-type: none"> ▪ Segment 3B is a 3 lane facility including a center turn lane, with on-street parking and numerous driveway. Traffic is composed of commuter, tourist and shopping trips. ▪ Bike lanes are striped. ▪ Few improvement opportunities.

RECOMMENDED ACTIONS
<ul style="list-style-type: none"> □ Partner with the Transportation Agencies and establishing a plan for SR 154 and the local circulation addressing the needs for the community and the regional travelers; encourage General Plan updates that promote transit and pedestrian-friendly development, mixed use and a balance of jobs and housing. □ Implement Intelligent Transportation System components from the Central Coast ITS Strategic Deployment Plan. □ Promote the use of Transportation System Management and Trans. Development Management measures by all stakeholders □ .Advocate: alternative travel modes such as transit, vanpools ridesharing and biking; installation of Park and Ride lots at multi-modal transfer points.

Appendix D

Environmental Resources Map



- Environmental Resources within two mile proximity of State Route 154**
- | | |
|-----------------------------|--|
| American Badger | Santa Ynez False Lupine |
| Black-Flowered Figwort | Sonoran Maiden Fern |
| California Red-Legged Frog | Southern Steelhead - Southern California Esu |
| Couller's Sailbush | Southern California Steelhead Stream |
| Hoover's Bent Grass | Southern Coast Live Oak Riparian Forest |
| Late-Flowered Mariposa Lily | Southern Cottonwood Willow Riparian Forest |
| Least Bell's Vireo | Southern Vernal Pool |
| Mesa Horkelia | Southern Willow Scrub |
| Monarch Butterfly | Southwestern Pond Turtle |
| Ojai Fritillary | Tidewater Goby |
| Refugio Manzanita | Umbrella Larkspur |
| Santa Barbara Honeycuckie | |

State Route 154 Environmental Resources

PM 0.02
Junction
US 101

PM 32.84
State Street

Two Mile Proximity
to State Route 154



Source: California Department of Fish & Game
California Natural Diversity Database - October, 2005

Appendix E

Technical Data: Delay/LOS Methodology, 2 Way Segments

Delay Computation Methodology

Floating Car Run Data Analysis

SR 154 traffic model runs show a low level of service, with most of the segments projecting LOS E or F in 2030. However, actually driving the route creates a different perception, one of little delay. Intersection analysis also adds weight to the perception that traffic experiences little delay, and appears to flow smoothly. Caltrans staff conducted floating car data runs to collect data to clarify the delay issue.

Three cars collected the data, with commute runs eastbound (to Santa Barbara) in the morning and reversed in the afternoon. Mark points separated the run into segment similar to the TRC road segments. The data loggers recorded the actual speed and time for each car. The results were then collected and averaged. This averaged data set is shown below.

Table 6

Eastbound 7:00 – 8:00 AM			
SR 154 Segments	Average Speed (MPH)	Travel Time (min.)	Total Delay (sec.)
Route 101 To Foxen Cyn. Road	52.3	3.28	9.5
Foxen Cyn. Road To Rte. 246	53.5	6.45	12.5
Rte. 246 To Rec Area	61.7	6.23	0.0
Rec Area To Cold Spring Bridge	58.7	8.55	0.0
Cold Spring Bridge To Rte. 192	52.7	9.30	23.5
Rte. 192 To Rte. 101	34.7	1.84	40.5
Total	54.9	35.66	86.0

Table 7

Westbound 4:00 – 6:00 PM			
SR 154 Segments	Average Speed (MPH)	Travel Time (min.)	Total Delay (sec.)
Rte. 101 to Rte. 192	37.7	1.2	22.0
Rte. 192 To Cold Spring Bridge	59.0	8.6	20.8
Cold Spring Bridge To Rte. 246	65.6	13.6	0.0
Rte. 246 To Foxen Cyn. Road	62.8	5.47	2.6
Foxen Cyn. Road To Route 101	62.6	2.71	0.8
Total	62.0	31.5	46.2

Delay

The data bear out the general perception that the overall delay is less than the model-derived LOS would indicate. This is attributable to the general high rate of speed for commuters on SR 154, with experienced drivers and a familiar road leading to driving beyond the posted speed limits. Total delay is based upon a normal driving speed of 55 mph, and is shown in the right hand column. This computed overall delay is only 86 seconds in the morning Eastbound commute period and 46.2 seconds in the afternoon Westbound commute period.

Level of Service Computation Methodology, Two Way Segments

Synopsis of Model Runs

The levels of service from the traffic model, as computed by Caltrans staff and verified by SBCAG staff, are shown in the following table.

Segment	Post Miles	Existing			No Build		20 Year Concept LOS/Facility
		Facility	ROW	Current LOS 2008	2020 LOS	2030 LOS	
1A	.015-R2.39	2 E/C	100-150	C-E	D	D	D--2E/C
1B	R2.39-R8.11	2 E/C	100-150	E	E	E	D--2E/C
2A	R8.11-14.77	2 E/C	100-150	E	E	F	D--2E/C
2B	14.77-23.38	2 E/C	100-150	C-E	E	F	D--2E/C
3A	23.38-R31.55	2 E/C	100-150	E	F	F	D--2E/C
3B	R31.55-32.29	2 E/C	100-150	C	E	E	D--4E
3C	32.285-32.840	2 E/C		C	n/a	n/a	D--4E

This is because the models use Highway Capacity Manual methodology, which is based upon *speed* and *percent time spent following* for a two lane facility (See methodology, attached). When the percent time spent following is high, the LOS will be low regardless of speed. Platoons of experienced commuters are moving at relatively high rates of speed, and all but the lead car are following other cars. The matrix on the following page shows clearly the extent of time following in SR 154 traffic.

Delay appears to be a better method than LOS for describing current and future traffic conditions for SR 254.

Route 154		Class I Highway												
SB 154 pm 0 - 32.29		Traffic Volumes				Commuter* LOS			Commuter % Time Spent Following			Commuter Average Speed		
Segment	Postmiles	2004	2006	2020	2030	2006	2020	2030	2006	2020	2030	2006	2020	2030
1A	.015-R2.39	1,000	1,100	1,631	2,010	D-E	E	E	76-82.3	85.4-90.5	89.8-93.6	46.6-47.3	42.7-43.1	39.4-39.7
	.015-2.14	1,000	1,100	1,631	2,010	E	E	E	82.3	90.5	93.6	46.6	42.7	39.4
	2.14-2.39	1,000	1,100	1,631	2,010	D	E	E	76	85.4	89.8	47.3	43.1	39.7
1B	R2.39-R8.11	1,000	1,100	1,631	2,010	D	E	E	76	85.4	89.8	46.6	43.1	39.7
2A	R8.11-14.77	1,600	1,650	2,232	2,648	D-E*	E	E-F	74.7-90	78.1-94.5	98.4-119.2	40.2-45.1	35.2-38.9	31.4-35.1
	8.11-12.188	1,600	1,650	2,232	2,648	D	E	E	74.7	78.1	98.4	45.1	38.9	35.1
	12.188-14.77	1,600	1,650	2,232	2,648	E	E	F	90	94.5	119.2	40.2	35.2	31.4
Existing Passing Lane	10.3-11.9	1,600	1,650	2,232	2,648	D	E	E	59.7	64.8	69.5	44.7	39.1	35.1
2B	14.77-23.38	1,600	1,650	2,232	2,648	A-E	B-E	B-F	0-90	0-94.5	0-119.2	40.2-60	35.2-60	31.4-60
	14.77-17.875	1,600	1,650	2,232	2,648	E	E	F	90	94.5	119.2	40.2	35.2	31.4
	17.875-23.187	1,600	1,650	2,232	2,648	D	E	F	76	79.7	100.5	42.6	37.4	33.7
	23.187-23.38	1,600	1,650	2,232	2,648	A	B	B	0	0	0	60	60	60
Existing Turnout	21.5-21.63	1,600	1,650	2,232	2,648	C	D	E	53.1	57.7	61.9	48.9	43.1	38.9
3A	23.38-R31.55	1,375	1,425	1,948	2,322	A-E	B-E	B-F	0-82.6	0-93	0-116.5	41.8-60	37.5-60	34.2-60
	23.38-24.68	1,375	1,425	1,948	2,322	A	B	B	0	0	0	60	60	60
	24.68-29.73	1,375	1,425	1,948	2,322	E	E	F	88	93	116.5	41.8	37.5	34.2
	29.73-30.47	1,375	1,425	1,948	2,322	E	E	E	82.6	89.3	92.4	45.3	41	37.8
Projected Turnout	28.3-28.5	1,375	1,425	1,948	2,322	C	E	E	53.5	58	62.2	45.6	39.8	35.7
3B	R31.55-32.29	1,450	1,550	1,745	1,885	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note*: Commuter measures of effectiveness, such as LOS, is based on Highway Capacity Methodology that assumes the typical driver is a commuter, as opposed to a recreational user.

TWO-WAY SEGMENTS

The two-way segment methodology estimates measures of traffic operation along a section of highway, based on terrain, geometric design, and traffic conditions. Terrain is classified as level or rolling, as described below. Mountainous terrain is addressed in the operational analysis of specific upgrades and downgrades, presented below. This methodology typically is applied to highway sections of at least 2.0 mi.

Traffic data needed to apply the two-way segment methodology include the two-way hourly volume, a peak-hour factor (PHF), and the directional distribution of traffic flow. The PHF may be computed from field data, or appropriate default values may be selected from the tabulated values presented in Chapter 12. Traffic data also include the proportion of trucks and recreational vehicles (RVs) in the traffic stream. The operational analysis of extended two-way segments for a two-lane highway involves several steps, described in the following sections.

EXHIBIT 20-2. LOS CRITERIA FOR TWO-LANE HIGHWAYS IN CLASS I

LOS	Percent Time-Spent-Following	Average Travel Speed (mi/h)
A	≤ 35	> 55
B	> 35–50	> 50–55
C	> 50–65	> 45–50
D	> 65–80	> 40–45
E	> 80	≤ 40

Note:

LOS F applies whenever the flow rate exceeds the segment capacity.

EXHIBIT 20-3. LOS CRITERIA (GRAPHICAL) FOR TWO-LANE HIGHWAYS IN CLASS I

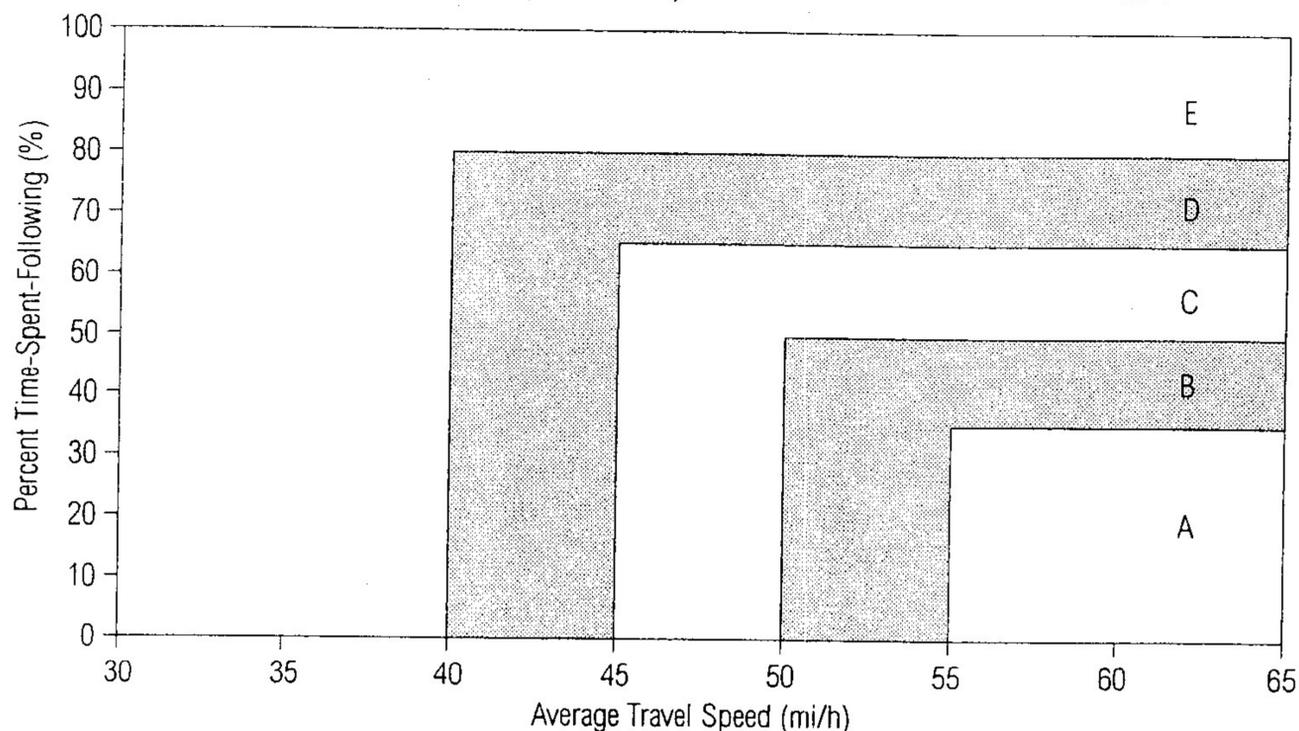


EXHIBIT 20-4. LOS CRITERIA FOR TWO-LANE HIGHWAYS IN CLASS II

LOS	Percent Time-Spent-Following
A	≤ 40
B	> 40–55
C	> 55–70
D	> 70–85
E	> 85

Note:

LOS F applies whenever the flow rate exceeds the segment capacity.

Appendix F

Hazardous Materials Ordinance

Appendix F

This page reserved for Hazardous Material Ordinance