

FINAL

Transportation nt

Report



**California Department of Transportation
District 7
Office of Advance Planning
System Planning Branch**



December 2005

TRANSPORTATION CONCEPT REPORT

STATE ROUTE 23

P.M. 0.000 – 24.170

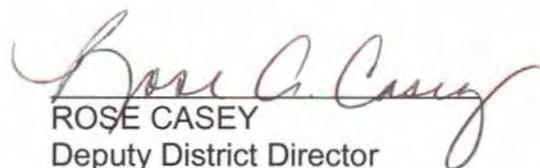
PREPARED BY DISTRICT 7 DIVISION OF PLANNING

November 2005



CALTRANS DISTRICT 07 APPROVAL

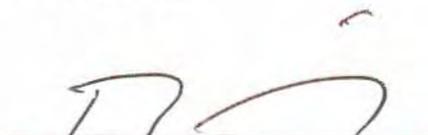
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TRANSPORTATION CONCEPT REPORT

STATE ROUTE 23

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I. Disclaimer

This Transportation Concept Report (TCR) is a planning document prepared by the California Department of Transportation (Caltrans) based on the data available up to the date of its publication.

This TCR identifies the present geometric and operational characteristics of the transportation facility for which it was prepared, the anticipated demand in 20 years, and the suggested improvements to satisfy the future demand.

The future improvements to the transportation facility identified in this TCR are recommendations for study purposes and shall not be binding upon the State of California and/or Caltrans for implementation. Caltrans, in collaboration with local and regional transportation agencies, and upon conduct of further studies and availability of funds, may proceed with implementation of any or all of the identified future improvements or may select improvements in lieu of those identified in this document. Any identified improvements should not be construed as being 100% publicly funded.

II. DOCUMENT SUMMARY

While this Transportation Concept Report (TCR) is divided into twelve sections, three of the sections, VIII, X and XI are the heart of the document. They include detailed segment summaries (Section VIII), a list of suggested improvements (Section X) and Transportation Concept and Conclusions (Section XI). All of the other sections provide a context for analyzing the State Route 23 (SR-23) corridor and document the data resources studied.

The basic aim of this document is to suggest a configuration for SR-23 that will meet projected demands within a framework of programming, implementation constraints and regional policy.

Alternatives 1 & 2 are identical and require no addition to the existing configuration (except in segment 3), however, since there is an overall improvement to the system as a whole, Alternative #2 is the recommended concept for this route.

CONCEPT IMPROVEMENTS							
Segment	Limits	Existing Facility (lanes)	Alternative Concept #1	Alternative Concept #2	Maintain Current D/C	LOS "D" Attainment	Ultimate Transportation Concept
1	SR-1 to Ventura Co. Line	1 C	1 C	1 C	2 C	1 C	1 C
2	Ventura Co. Line to US-101	2 C	2 C	2 C	3 C	2 C	2 C
3	US-101 to SR-118	2 MF	3MF + 1HOV	3MF + 1HOV	3MF + 1HOV	4MF + 1HOV	3MF + 1HOV
4	SR-118 to SR-126	1 C	1 C	1 C	2 C	2 C	1 C

C = Conventional

MF = Mixed Flow

III. DOCUMENT PURPOSE

This Transportation Concept Report (TCR) is an internal Caltrans planning tool intended to provide an initial look at developments within the State Route 23 (SR-23) corridor over the next twenty years. Its primary focus is to identify "need"--defined as the difference between forecast demand and capacity. It analyzes this need in three ways: 1) it documents current conditions; 2) it contrasts projected future demand with planned facilities (capacity); and 3) it proposes future development alternatives to address the shortfalls between demand and capacity.

As an initial step in the planning process, its observations and conclusions serve as a reference for more complex and specific reports such as Feasibility Studies, Major Investment Studies (within the Southern California Association of Governments (SCAG) region these studies are now referred to as "Regionally Significant Transportation Investment Studies (RSTIS)", and Project Studies).

This TCR is composed of a series of proposed alternatives for the development of SR-23. The alternatives are included in the Segment Summaries, Section VIII. The recommended alternative, which is to maintain the existing facility in segments 1, 2 & 4 and add an additional mixed flow lane plus one High Occupancy Vehicle lane (HOV) in each direction in segment 3, is based on existing and future plans--primarily the SCAGs 2004 RTP, Ventura County's 2004 Congestion Management Program, and the Caltrans District System Management Plan. The Attain LOS "D" alternative is based on the number of "lane equivalents" necessary to reach LOS "D"--by definition, the lowest adequate level of service rating.¹ The Ultimate Transportation Corridor (UTC) alternative is considered the maximum reasonable development of a highway facility within the corridor. The UTC is intended to identify potential right of way needs.

1. Please note: The Attain LOS "D" alternative is provided as a way to illustrate future congestion and capacity needs and **not as a suggestion for programming.**

A. SYSTEM PLANNING:

An Overview

PURPOSE:

System Planning provides the basis for an effective transportation decision-making process, which is responsive to the public demand for mobility of people and goods.

OBJECTIVE:

- Identify, analyze and display transportation problems on a consistent statewide basis to enable fully informed decisions on the programming of system improvements and on system operations and maintenance.
- Allow department management to make short-term decisions that are consistent with long-term objectives.
- Communicate with the public on the levels of transportation service, which the state can or cannot provide.

PRODUCTS:

1) District System Management Plan (DSMP)

The DSMP is a strategic and policy-planning document that presents how the district envisions the transportation system will be maintained, managed and developed over the next twenty years and beyond. It is developed in partnership with regional and local transportation planning agencies, congestion management agencies, transit districts and air quality planning agencies. It considers the entire transportation infrastructure, regardless of jurisdiction, and addresses all modes and services, which move people,

services, and goods. As a management tool, it informs federal, state, regional and local agencies, the public and the private sector of the district's plan for developing, managing and maintaining the transportation system.

2) Route Concept Report (RCR) or Transportation Concept Report (TCR)

RCR's and TCR's analyze a route or corridor and establish a twenty-year transportation planning concept. They identify modal options and various needs to accomplish the twenty-year concept. The concept analysis considers operating level of service (LOS), modal facility type, vehicle occupancy of all modes and capacity needs. The studies identify "unconstrained" needs.

3) Transportation System Development Plan (TSDP)

The TSDP identifies transportation system improvements for the various options analyzed in the DSMP and TCR's. It covers the four-years immediately following the five-year STIP period and uses high and low funding scenarios. It provides a priority list for use in programming on- and off-system improvements.

Document Schedule:

DSMP - Generally, the same as the SCAG Regional Transportation Plan. The anticipated completion date is. June 2006.

TCR's - Ongoing; updated as conditions change.

TSDP – Generally precedes STIP priority list; due from the District by March 15th of odd numbered years.

B. The Legislative Mandate

Long-Term System Planning

Government Code Statutes Section 65086

The Department of Transportation, in consultation with transportation planning agencies, county transportation commissions, counties, and cities, shall carry out long-term state highway system planning to identify future highway improvements.

IV. Regional Threshold Criteria and Policies

I. CALTRANS: California Transportation Plan 2025 Goals:

- 1) Enhance public safety and security
- 2) Preserve the Transportation system
- 3) Improve mobility & accessibility
- 4) Support the economy
- 5) Enhance the environment
- 6) Reflect Community Values

II. CALTRANS: District System Management Plan:

- 1) District 7 has established **LOS F0** with freeway speeds of approximately 25 mph lasting from 15 minutes to 1 hour as the minimum acceptable LOS for the Freeway System.

III. 2004 Ventura County Congestion Management Program (CMP)

- 1) **LOS "E"** has been established as the minimum acceptable LOS standard.

IV. Ventura County General Plan

The minimum acceptable LOS for road segments and intersections within the Regional Road Network and Local Road Network shall be as follows:

- 1) **LOS "D"** for all County thoroughfares and Federal highways and State highways in the incorporated area of the County, except as otherwise provided in Subparagraph 2;
- 2) **LOS "E"** for SR-33 between the northerly end of the Ojai Freeway and the city of Ojai;

- 3) **LOS "C"** for all County-maintained local roads; and
- 4) The LOS prescribed by the applicable city for all Federal highways, State highways, city thoroughfares and city-maintained local roads located within that city, if the city has formally adopted General Plan policies, ordinances, or a reciprocal agreement with the County respecting development in the city that would individually or cumulatively affect the LOS of Federal highways, State highways, County thoroughfares and county-maintained local roads in the unincorporated area of the County.

IV. SCAG 2004 Regional Transportation Plan Regional Goals

- 1) Maximize mobility and accessibility for all people and goods in the region.
- 2) Ensure travel safety and reliability for all people and goods in the region.
- 3) Preserve and ensure sustainable regional transportation system.
- 4) Maximize the productivity of our transportation system.
- 5) Protect the environment, improve air quality and promote energy efficiency.
- 6) Encourage land use and growth patterns that complement our transportation investments.

VI. SAFETEA – LU: Safe, Accountable, Flexible and Efficient Transportation Act: A Legacy for Users

1. Maintain TDM
2. Provide for intelligent transportation systems (ITS)
3. Expands funding to include intermodal terminals at seaports

VI. Transportation Management System Master Plan (TMS) Goals

1. Prepare for and support aggressive TMS implementation
2. Restore lost capacity by 20 percent
3. Reduce projected freeway congestion by 20 percent
4. Improve travel time reliability by 10 percent

V. ROUTE DESCRIPTION

Pursuant to statutes relating to the California Department of Transportation, describes SR-23 as follows:

- a) Route 23 is from SR-1 near Aliso Canyon to US-101
- b) US-101 in Thousand Oaks to SR-118
- c) SR-118 to SR-126 near Fillmore

From SR-1, the route proceeds northerly through Los Angeles County and into Ventura County (P.M. L.A. 8.9 – Ven 0.0) to its terminus at SR-126 (P.M. Ven 24.16), in the City of Fillmore.



The Route begins with a conventional highway in Los Angeles County to Carlisle Road. This portion of the route crosses the Santa Monica Mountains. The terrain in this section is mostly mountainous having grades exceeding 6%. In Ventura County, the route is comprised of conventional highway from Carlisle Road to US-101, and from SR-118 to SR-126.



The freeway portion of the route begins at west junction US-101 to junction SR-118. The terrain along the conventional highway portion, south of US-101 is essentially flat. The terrain along the freeway section is rolling. The conventional highway portion, north of SR-118 traverses the Santa Susana Mountains with grades of up to 6%.

PURPOSE OF ROUTE AND CLASSIFICATION:

Between SR-1 and the Los Angeles/Ventura County line is Decker Road, which is classified as a Minor Arterial (MA). This portion of the route provides access to and from the local beaches and the Thousand Oaks/Westlake Village areas.

The portion of SR-23 from the Los Angeles/Ventura County Line to the end of SR-23 is classified as an extension of a rural Minor Arterial (P1M). This segment serves as an interregional travelway providing commuter access to the SR-118 freeway and the US-101 freeway.

From SR-118 to SR-126, between Walnut Canyon Road and Grimes Canyon Road, is classified as a Minor Arterial (MA). It provides access to and from the cities of Fillmore and Moorpark and a number of recreational areas.

VI. SOCIO ECONOMICS

Land use along the conventional highway section of the SR-23 corridor consists of recreational, agricultural, undeveloped land and residential. The freeway section of the corridor is predominately residential.

State Route 23 traverses five Southern California Association of Governments (SCAG) Regional Statistical Areas (RSAs), which are identified as Simi Valley, Thousand Oaks, Fillmore, Agoura, and Malibu.

Development in the Moorpark, Agoura, and Westlake Village areas could potentially increase traffic volumes on SR-23. There are several new land use development projects in the Moorpark. Hitch Ranch plans for 600 residential units and 400,000 square feet of industrial space. There are also commercial developments along SR-118 east and west of SR-23. In Thousand Oaks, the Thousand Oaks Mall expansion project includes improvements to SR-23 to mitigate traffic impacts.

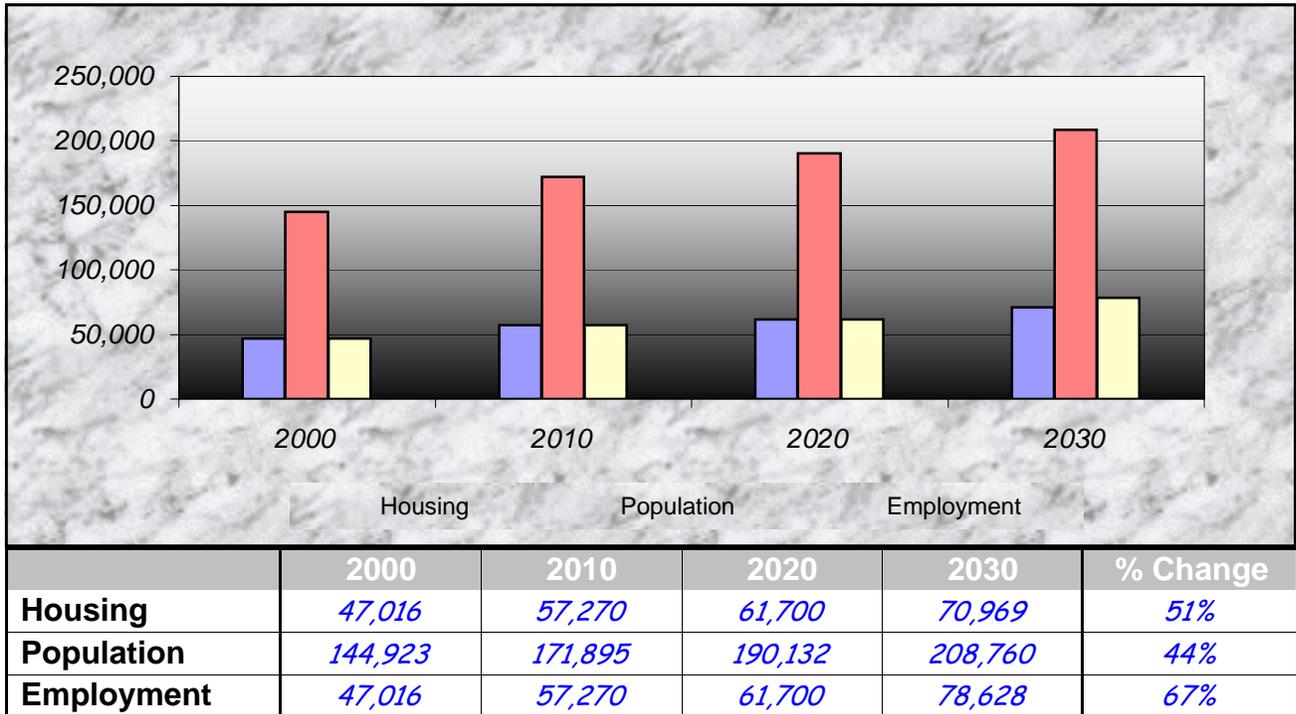
In Ventura County, the voters approved the Save Open Space and Agricultural Resources (SOAR) Ordinances/Initiatives. SOAR ordinances and initiatives establish "City Urban Restriction Boundary (CURB)" lines around each city and require city voter approval before any land located outside the CURB lines can be developed under the city's jurisdiction for urban purposes. The County SOAR ordinance requires countywide voter approval of any change to the County General Plan involving the "Agricultural", "Open Space", or "Rural" land use map designations, or any change to a General Plan goal or policy related to those land use designations.

Growth forecasts (see socio-economic data) predict growth in population, employment and housing in the five regional statistical areas.

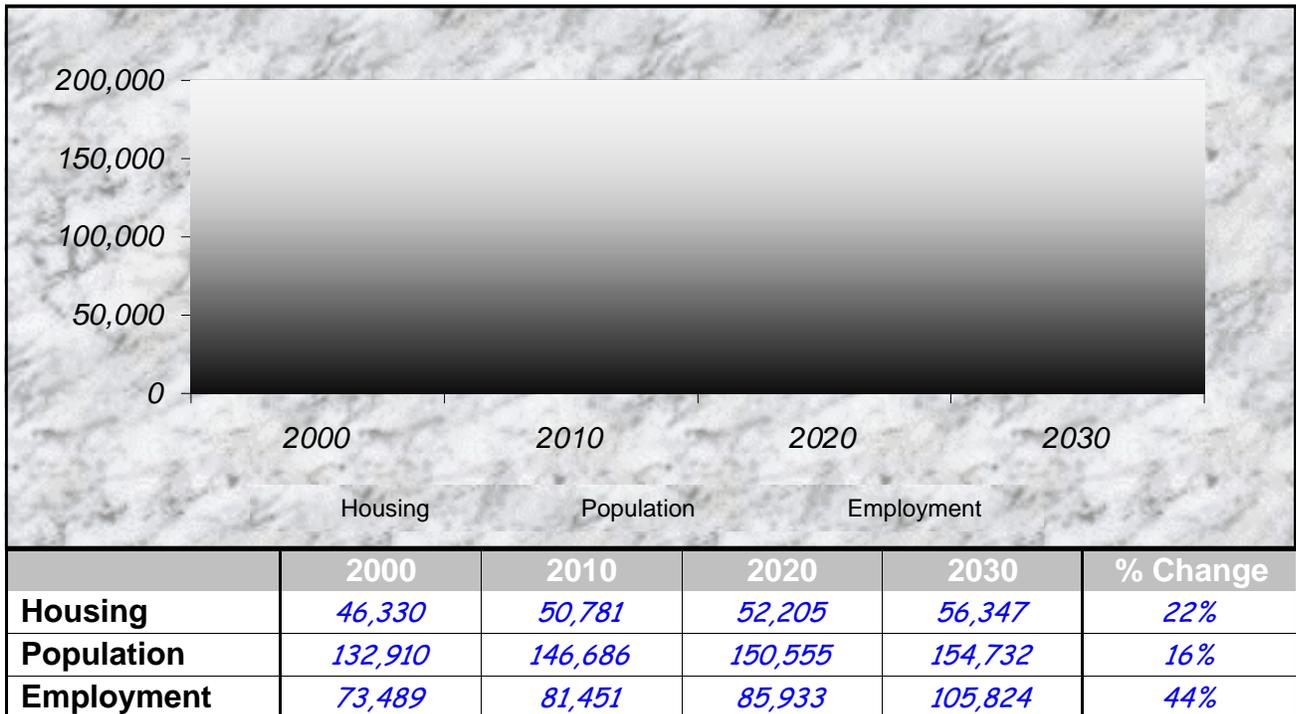
The following graphs illustrate projected growth in population, employment and housing in the areas surrounding Route 23 between the years 2000 and 2030:

STATE ROUTE 23 SOCIO-ECONOMIC DATA

Simi Valley Regional Statistical Area (RSA) Demographics

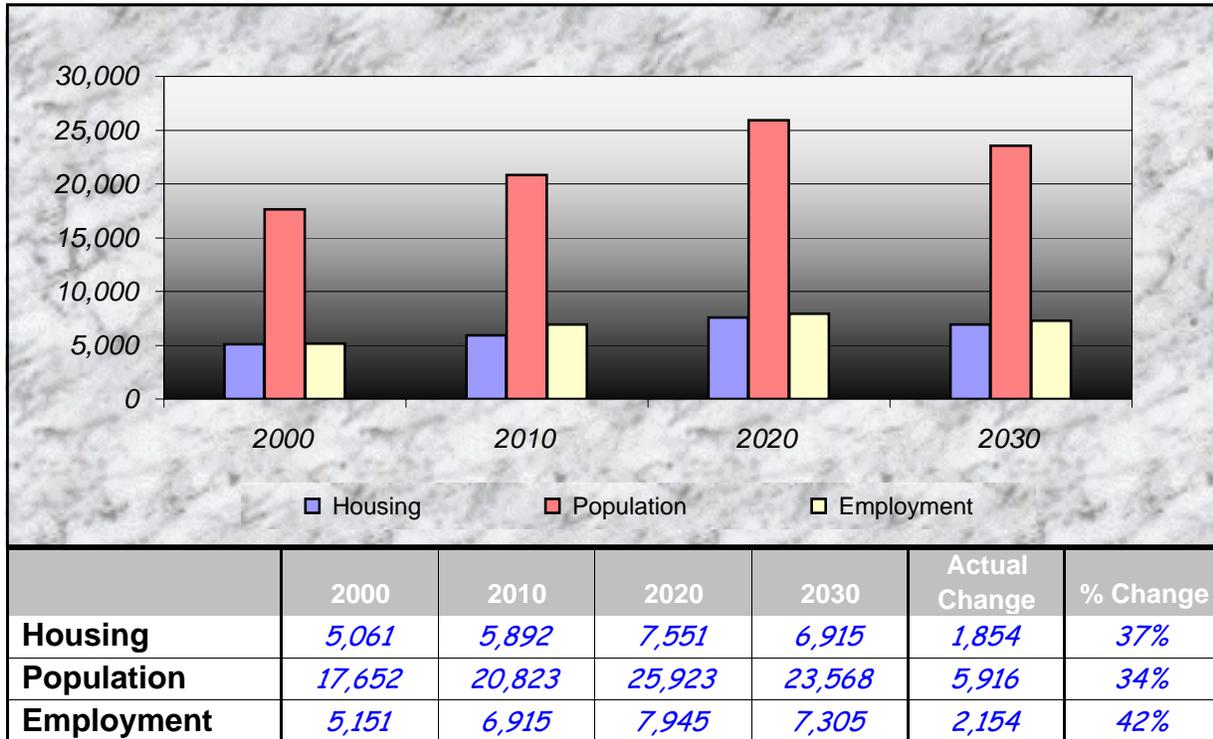


Thousand Oaks Regional Statistical Area (RSA) Demographics

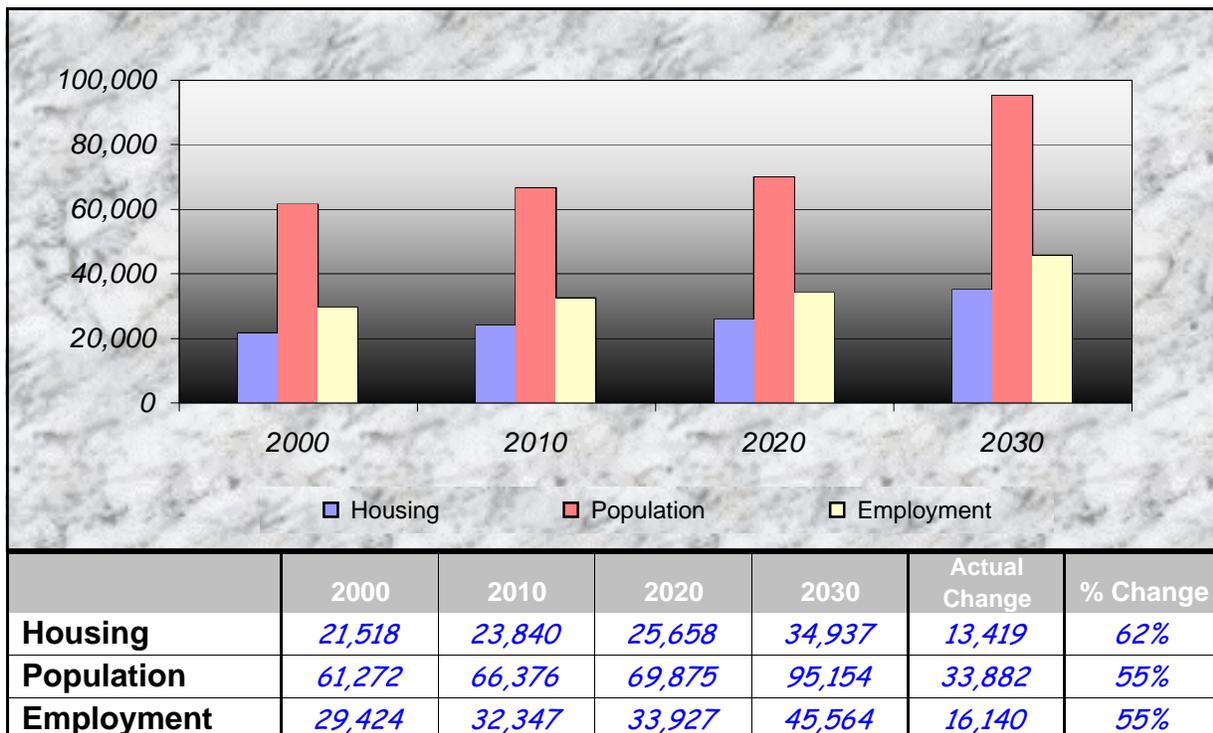


STATE ROUTE 23 SOCIO-ECONOMIC DATA

Fillmore Regional Statistical Area (RSA) Demographics

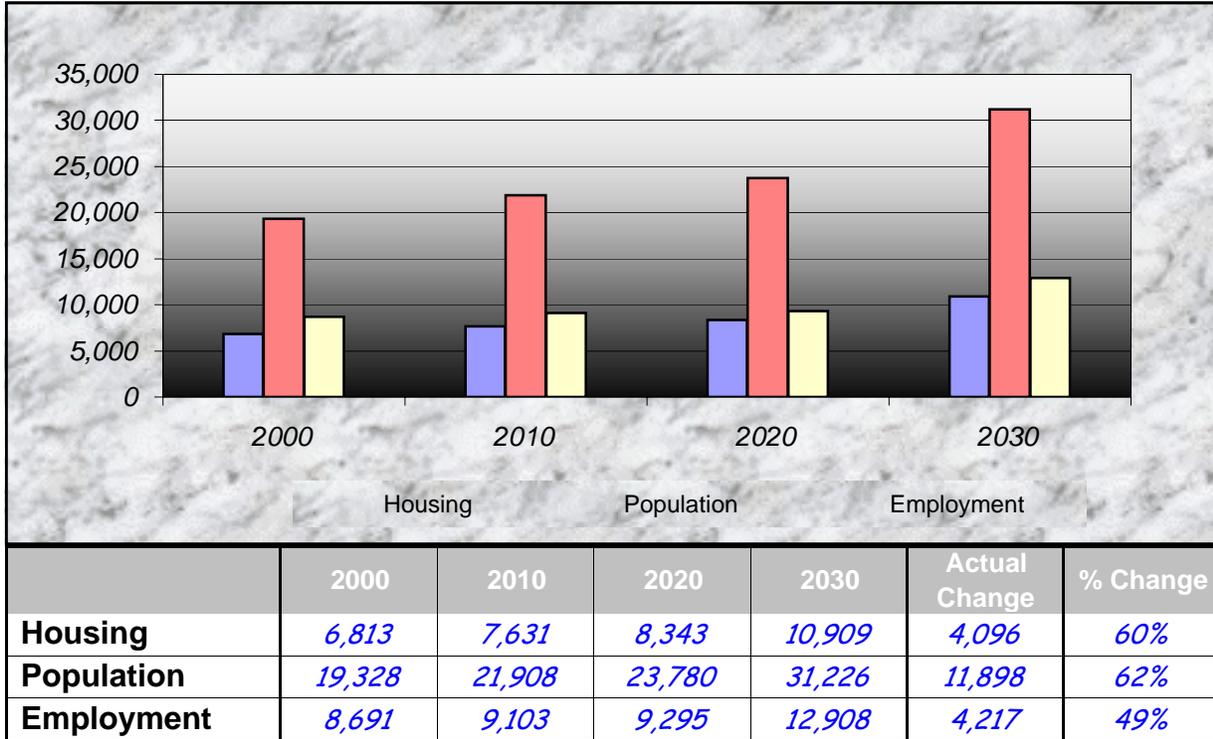


Agoura Regional Statistical Area (RSA) Demographics



STATE ROUTE 23 SOCIO-ECONOMIC DATA

Malibu Statistical Area (RSA) Demographics



VII. ACCIDENT RATES AND SAFETY

INTRODUCTION

District traffic safety and accident data are based on the Traffic Accident Surveillance and Analysis System (TASAS). This database provides accident rates using a three-year average along selected routes. The TASAS data, which is displayed graphically on the following pages, covers the period of January 1, 2001 through December 31, 2003.

First Graph: Fatal Plus Injury Per Million Vehicle Miles

The first graph, "Fatal Plus Injury Per Million Vehicle Miles" (F+I/MVM), shows the rate of fatal and non-fatal injuries on SR-23 during the coverage period. This graph has two graph lines, "Average" and "Actual". The "Actual" is based on specific data for accidents on SR-23. The "Average" line represents a Statewide Average Accident Rate (SWA) for highway segments of the same type with similar characteristics in the state.

According to the accident data obtained from the TASAS database the actual percentage of Fatal + Injury accidents that occurred in segment three is less than the SWA.

Second Graph: Total Accidents Per Million Vehicles Miles

The second graph, "Total Accidents Per Million Vehicle Miles" (Total/MVM) includes all accidents (fatal, non-fatal injury and accidents without injuries) within the coverage period. As in the first graph, the "Actual" is based on specific SR-23 data and "Average" represents a statewide average for comparable road segments.

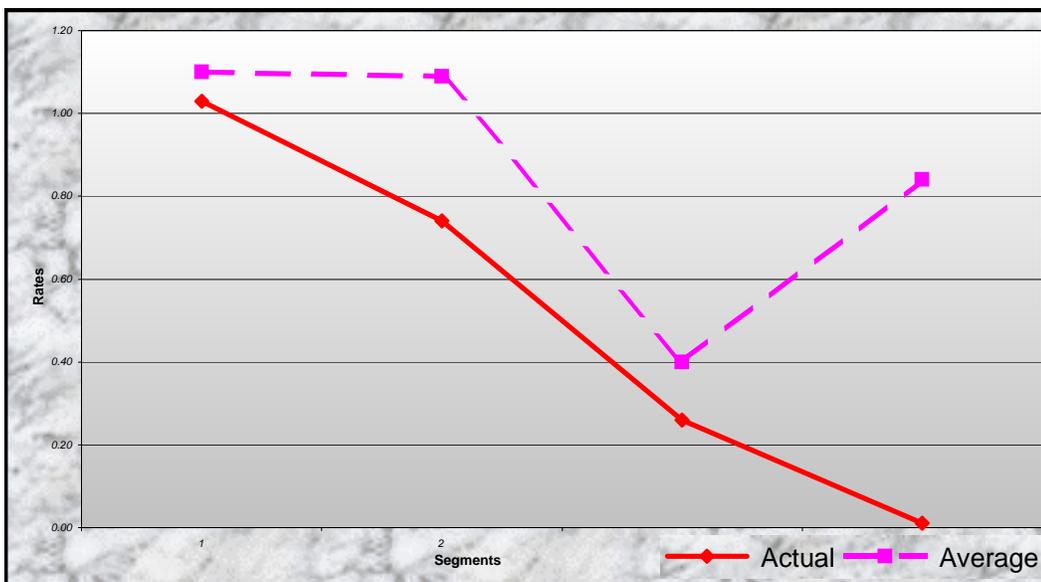
According to the accident data obtained from the TASAS database the total percentage of accidents that occurred is slightly higher than the SWA in segments one, two and four.

Safety

The accident data that is provided in this TCR is intended to support informed and responsible decision-making by transportation planners and programmers. Research into the connection between congestion and safety is being performed by Caltrans and within the national and international transportation communities. Future TCR's will document the state of that research.

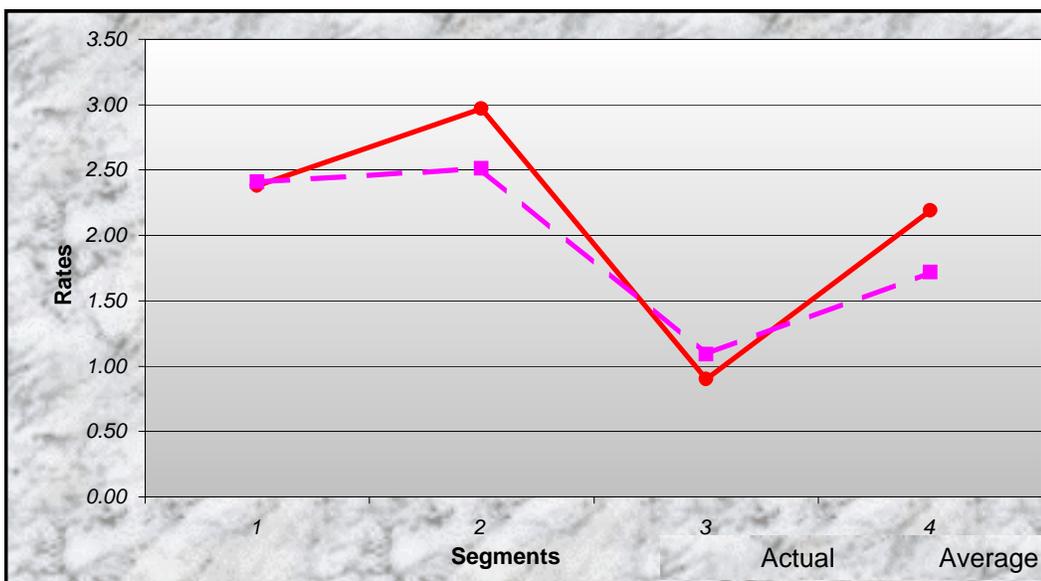
STATE ROUTE 23 ACCIDENT RATES

Fatal + Injury (Per Million Vehicle Miles)



	1	2	3	4
Actual	1.03	0.74	0.26	0.01
Average	1.10	1.09	0.40	0.84

Total Accidents (Per Million Vehicle Miles)



	1	2	3	4
Actual	2.38	2.97	0.90	2.19
Average	2.41	2.51	1.09	1.72

VIII. SEGMENT SUMMARIES INTRODUCTION

This TCR analyzes the conditions on SR-23 using the “segment” as the study unit. Segments are generally defined as “freeway interchange to freeway interchange”, “county line to freeway interchange”, or “freeway interchange to end of freeway”. The map on the following page illustrates these segments.

Each summary describes the segment’s current and projected operating characteristics, existing configuration, projected traffic demand and proposed alternative improvements.

DISTRICT 7
Los Angeles & Ventura Counties

**State Route 23
TCR Segmentation**

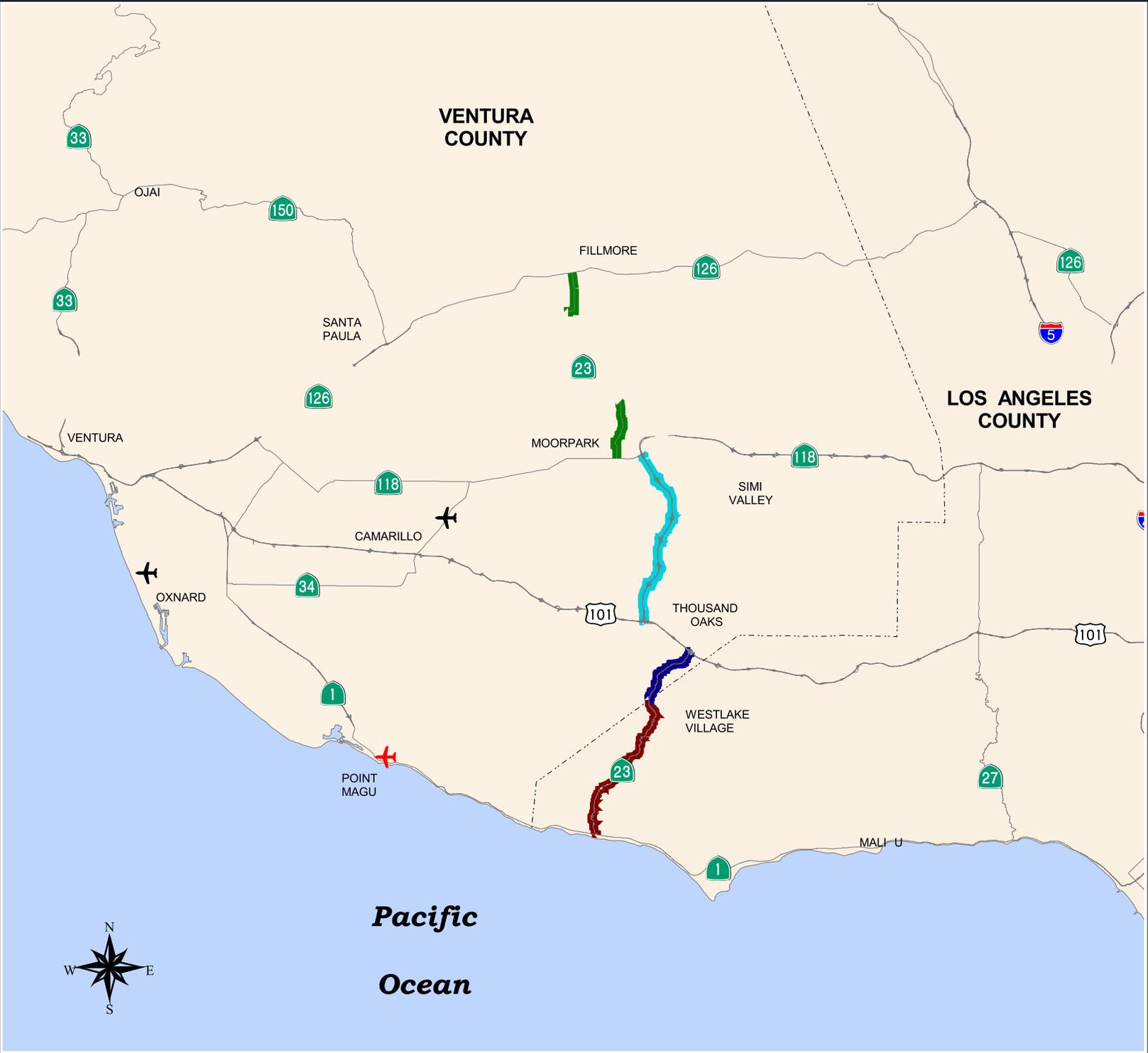
LEGEND

Segment	No.	Description
	1	Rte 1 to Ventura Co. Line
	2	Ventura Co. Line to Rte 101
	3	Rte 101 to Rte 118
	4	Rte 118 to Rte 126

Highways
 Traversable State Highways

-  State
-  Interstate
-  U.S.

- Airports
-  Commercial
 -  Military



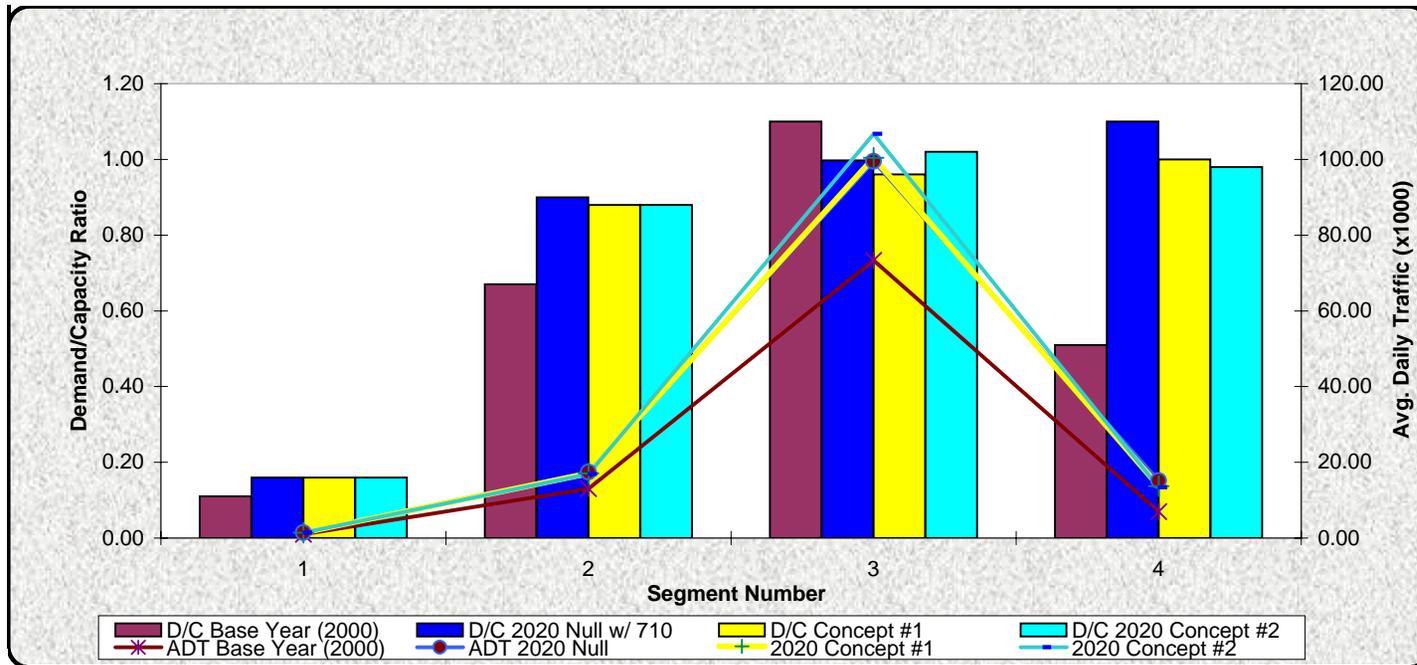
**Pacific
Ocean**

State Route 23 Concept Summary - Segment Configuration



Segment #	1	2	3	4
Existing				
Demand / Capacity	0.11	0.67	1.10	0.51
Avg. Daily Traffic	1,000	13,000	73,300	7,000
Number of Lanes	1	2	2	1
Pk.hour Level Of Service	A	C	F0	B
2020 Null With Route 710 (Main Line)				
Demand / Capacity	0.16	0.90	0.997	1.10
Avg. Daily Traffic	1,400	17,400	99,500	15,100
Number of Lanes	1	2	3	1
Pk.hour Level Of Service	A	D	E	F0
2020 Concept (Alternate #1)				
Demand / Capacity	0.16	0.88	0.96	1.00
Avg. Daily Traffic	1,400	17,100	100,400	13,700
Number of Lanes	1	2	4	1
Pk.hour Level Of Service	A	D	E	F0
2020 Concept (Alternate #2)				
Demand / Capacity	0.16	0.88	1.02	0.98
Avg. Daily Traffic	1,400	16,900	106,700	13,400
Number of Lanes	1	2	4	1
Pk.hour Level Of Service	A	D	F0	D

State Route 23 Concept Summary - Level of Service



Segment #	1	2	3	4
Base Year (2000)				
Demand / Capacity	0.11	0.67	1.10	0.51
Avg. Daily Traffic (x1,000)	1.00	13.00	73.30	7.00
Number of Lanes	1	2	2	1
Pk.hour Level Of Service	A	C	F0	B
2020 Null with Route 710				
Demand / Capacity	0.16	0.90	1.00	1.10
Avg. Daily Traffic (x1,000)	1.40	17.40	99.50	15.10
Number of Lanes	1	2	3	1
Pk.hour Level Of Service	A	D	E	F0
2020 Concept (Alternate #1)				
Demand / Capacity	0.16	0.88	0.96	1.00
Avg. Daily Traffic (x1,000)	1.40	17.10	100.40	13.70
Number of Lanes	1	2	4	1
Pk.hour Level Of Service	A	D	E	F0
2020 Concept (Alternate #2)				
Demand / Capacity	0.16	0.88	1.02	0.98
Avg. Daily Traffic (x1,000)	1.40	16.90	106.70	13.40
Number of Lanes	1	2	4	1
Pk.hour Level Of Service	A	D	F0	D

STATE ROUTE 23 - SEGMENT 1 SUMMARY

DESCRIPTION	
Limits:	SR-1 to Ventura County Line
Post Miles:	0.000 to 8.900

Purpose
intra-regional/commuter/recreational

Classification	
Functional Classification:	Minor Arterial (MA)
MPAH Designation:	
Other Systems:	

Ultimate Concept
1 lane each direction

Physical Characteristics	
Terrain:	Mountainous
Mainline R/W	60'
Median / Outside Shoulder:	0'/0'
Design Speed (MPH)	50
Bridge Structures:	52-0046

Corridor Characteristics	
Trucks (% of ADT):	1.6%
Express Transit (lines):	Vista Express
Operators:	Vista Express
Rail Service:	Metrolink, Amtrak
Park & Ride Lots (Spaces):	none

Accident Rates			
per Million Vehicle Miles (MVM) (1/01 to 12/03)			
ACTUAL		AVERAGE	
Fatal + Injury	Total	Fatal + Injury	Total
1.03	2.38	1.10	2.41

TRAFFIC DATA										
	EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
Average Daily Traffic (ADT)	1,000		1,400		1,400		1,400		1,400	
Lanes Configuration (ea. direction)	1		1		1		1		1	

Volume											
AM Peak Hour	N	80		110		110		110		110	
AM Peak Hour	S	80		110		110		110		110	
PM Peak Hour	N	80		110		110		110		110	
PM Peak Hour	S	100		140		140		140		140	

Speed (mph)											
AM Average	N	35		35		35		35		35	
AM Average	S	35		35		35		35		35	
PM Average	N	35		35		35		35		35	
PM Average	S	35		35		35		35		35	

Service Characteristics											
Level Of Service, AM	N	A		A		A		A		A	
Level Of Service, AM	S	A		A		A		A		A	
Level Of Service, PM	N	A		A		A		A		A	
Level Of Service, PM	S	A		A		A		A		A	
Directional Split (%) AM	N	50%		50%		50%		50%		50%	
Directional Split (%) PM	N	44%		44%		44%		44%		44%	

NOTES: 2020 Concept Alternates 1 & 2 are both modeled with I-710 gap closure built between I-10 and I-210
Speeds are estimated and are for comparative purposes only

STATE ROUTE 23 - SEGMENT 2 SUMMARY

DESCRIPTION	
Limits:	Ventura County Line to US-101 (break in route)
Post Miles:	0.000 to R3.320

Purpose
intra-regional/commuter /recreational

Classification	
Functional Classification:	Minor Arterial into urban areas (P1M)
MPAH Designation:	
Other Systems:	

Ultimate Concept
2 mixed flow lanes each direction

Physical Characteristics	
Terrain:	Flat
Mainline R/W	100'
Median / Outside Shoulder:	0'/0'
Design Speed (MPH)	70
Bridge Structures:	52-0339, 52-0347M, 52-0268E

Corridor Characteristics	
Trucks (% of ADT):	3%
Express Transit (lines):	Vista Express
Operators:	Vista Express
Rail Service:	Metrolink, Amtrak
Park & Ride Lots (Spaces):	1

Accident Rates			
per Million Vehicle Miles (MVM) (1/01 to 12/03)			
ACTUAL		AVERAGE	
Fatal + Injury	Total	Fatal + Injury	Total
0.74	2.97	1.09	2.51

TRAFFIC DATA										
	EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
Average Daily Traffic (ADT)	13,000		17,400		17,400		17,100		16,900	
Lanes Configuration (ea. direction)	2		2		2		2		2	

Volume		EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
AM Peak Hour	N	710		950		950		930		930	
AM Peak Hour	S	1,150		1,540		1,540		1,510		1,500	
PM Peak Hour	N	1,210		1,620		1,620		1,590		1,580	
PM Peak Hour	S	950		1,270		1,270		1,250		1,240	

Speed (mph)		EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
AM Average	N	40		40		40		40		40	
AM Average	S	39		37		37		38		38	
PM Average	N	39		37		37		37		37	
PM Average	S	40		39		39		39		39	

Service Characteristics		EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
Level Of Service, AM	N	B		B		B		B		B	
Level Of Service, AM	S	C		D		D		D		D	
Level Of Service, PM	N	C		D		D		D		D	
Level Of Service, PM	S	B		C		C		C		C	
Directional Split (%) AM	N	38%		38%		38%		38%		38%	
Directional Split (%) PM	N	56%		56%		56%		56%		56%	

NOTES: 2020 Concept Alternates 1 & 2 are both modeled with I-710 gap closure built between I-10 and I-210
Speeds are estimated and are for comparative purposes only

STATE ROUTE 23 - SEGMENT 3 SUMMARY

DESCRIPTION	
Limits:	US-101 to SR-118 (break in route)
Post Miles:	R3.340 to T12.260

Purpose
intra-regional/commuter/recreational

Classification	
Functional Classification:	Minor Arterial into urban areas (P1M)
MPAH Designation:	
Other Systems:	

Ultimate Concept
3 mixed flow & 1 HOV lane each direction

Physical Characteristics	
Terrain:	Rolling
Mainline R/W	200'
Median / Outside Shoulder:	12'/10'
Design Speed (MPH)	70
Bridge Structures:	317,307,417,306,310,305,318,308,313,311,304,312,368,319,330,341

Corridor Characteristics	
Trucks (% of ADT):	7.8%
Express Transit (lines):	Vista Express
Operators:	Vista Express
Rail Service:	Metrolink, Amtrak
Park & Ride Lots (Spaces):	1

Accident Rates			
per Million Vehicle Miles (MVM) (1/01 to 12/03)			
ACTUAL		AVERAGE	
Fatal + Injury	Total	Fatal + Injury	Total
0.26	0.9	0.40	1.09

TRAFFIC DATA										
	EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
Average Daily Traffic (ADT)	73,300		99,700		99,500		95,400	5,000	101,800	4,900
Lanes Configuration (ea. direction)	2		3		3		3	1	3	1

Volume											
AM Peak Hour	N	2,600		3,540		3,530		3,390	40	3,610	30
AM Peak Hour	S	4,490		6,110		6,100		5,850	540	6,240	650
PM Peak Hour	N	4,850		6,600		6,580		6,310	60	6,740	50
PM Peak Hour	S	3,560		4,840		4,830		4,640	510	4,940	610

Speed (mph)											
AM Average	N	64		65		65		65	65	65	65
AM Average	S	56		59		59		60	65	58	65
PM Average	N	52		57		57		58	65	56	65
PM Average	S	62		63		63		63	65	63	65

Service Characteristics											
Level Of Service, AM	N	C		B		B		B	A	B	A
Level Of Service, AM	S	F0		D		D		D	A	E	A
Level Of Service, PM	N	F0		F0		E		E	A	F0	A
Level Of Service, PM	S	D		C		C		C	A	C	A
Directional Split (%) AM	N	37%		37%		37%		37%	7%	37%	4%
Directional Split (%) PM	N	58%		58%		58%		58%	11%	58%	8%

NOTES: 2020 Concept Alternates 1 & 2 are both modeled with I-710 gap closure built between I-10 and I-210
Speeds are estimated and are for comparative purposes only

STATE ROUTE 23 - SEGMENT 4 SUMMARY

DESCRIPTION	
Limits:	SR-118 to SR-126
Post Miles:	T12.90 to 24.170

Purpose
intraregional/commuter/recreational

Classification	
Functional Classification:	Minor Arterial
MPAH Designation:	
Other Systems:	

Ultimate Concept
1 lane each direction

Physical Characteristics	
Terrain:	Rolling
Mainline R/W	60'
Median / Outside Shoulder:	0'/0'
Design Speed (MPH)	45-50
Bridge Structures:	52-113 to 52-115, 52-424,425,427,436

Corridor Characteristics	
Trucks (% of ADT):	15.6%
Express Transit (lines):	Vista Express
Operators:	Vista Express
Rail Service:	Metrolink, Amtrak
Park & Ride Lots (Spaces):	none

Accident Rates			
per Million Vehicle Miles (MVM) (1/01 to 12/03)			
ACTUAL		AVERAGE	
Fatal + Injury	Total	Fatal + Injury	Total
0.01	2.19	0.84	1.72

TRAFFIC DATA										
	EXISTING (2000)		2020 NULL (w/o Route 710)		2020 NULL (with Route 710)		2020 CONCEPT (Alt1)		2020 CONCEPT (Alt2)	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
Average Daily Traffic (ADT)	7,000		15,100		15,100		13,700		13,400	
Lanes Configuration (ea. direction)	1		1		1		1		1	

Volume										
AM Peak Hour	N	170		370		370		330		320
AM Peak Hour	S	460		990		990		900		880
PM Peak Hour	N	440		950		950		860		840
PM Peak Hour	S	250		540		540		490		480

Speed (mph)										
AM Average	N	35		35		35		35		35
AM Average	S	35		28		28		30		31
PM Average	N	35		39		39		31		32
PM Average	S	35		35		35		35		35

Service Characteristics										
Level Of Service, AM	N	A		B		B		B		A
Level Of Service, AM	S	B		F0		F0		F0		E
Level Of Service, PM	N	B		F0		F0		E		D
Level Of Service, PM	S	A		C		C		B		B
Directional Split (%) AM	N	27%		27%		27%		27%		27%
Directional Split (%) PM	N	64%		64%		64%		64%		64%

NOTES: 2020 Concept Alternates 1 & 2 are both modeled with I-710 gap closure built between I-10 and I-210
Speeds are estimated and are for comparative purposes only

STATE ROUTE 23 - CONGESTION MEASURES

SPEED										
	AVERAGE SPEEDS (MPH)									
	2000* EXISTING		2020 NULL* (withouth I-710)		2020 NULL* (with I-710)		2020 CONCEPT* Alternate 1		2020 CONCEPT* Alternate 2	
	Main Line	HOV	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
Segment 1	35		35		35		35		35	
Segment 2	39		37		37		37		37	
Segment 3	52		59		57		58	65	56	65
Segment 4	35		28		28		31		31	

DEMAND / CAPACITY RATIOS										
	2000* EXISTING		2020 NULL* (without I-710)		2020 NULL* (with I-710)		2020 CONCEPT* Alternate 1		2020 CONCEPT* Alternate 2	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
	Segment 1	0.11		0.16		0.16		0.16		0.16
Segment 2	0.67		0.90		0.90		0.88		0.88	
Segment 3	1.10		1.00		0.997		0.96	0.28	1.02	0.33
Segment 4	0.51		1.10		1.10		1.00		0.98	

LEVEL OF SERVICE										
	2000* EXISTING		2020 NULL* (without I-710)		2020 NULL* (with I-710)		2020 CONCEPT* Alternate 1		2020 CONCEPT* Alternate 2	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
	Segment 1	A		A		A		A		A
Segment 2	C		D		D		D		D	
Segment 3	F0		F0		E		E	A	F0	A
Segment 4	B		F0		F0		F0		E	

HOURS OF DELAY										
	2000* EXISTING		2020 NULL* (without I-710)		2020 NULL* (with I-710)		2020 CONCEPT* Alternate 1		2020 CONCEPT* Alternate 2	
	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)	Main Line	HOV Lane(s)
	Segment 1	0		0		0		0		0
Segment 2	0		0		0		0		0	
Segment 3	150		150		150		100	0	150	0
Segment 4	0		100		100		50		50	

Speed values are estimates and are to be used for comparative purposes only

Delay values are estimates and are to be used for comparative purposes only

*: Worst condition during peak hours

IX. ROUTE ANALYSIS

EXISTING FACILITY: From SR-1 to the Ventura County line SR-23 is a 2-lane conventional highway where it changes to 4 lanes until it reaches the US-101. From the US-101 to SR-118 the route is a 4 mixed flow lane. From SR-118 to SR-126 the route becomes a 2-lane conventional highway.

SIGNALIZED INTERSECTIONS:

There are twelve signalized intersections along the conventional portions of the route at the following locations:

- Potrero Road
- Triunfo Canyon Road
- Agoura Road
- Townsgate Road
- New Los Angeles & Spring Road
- New Los Angeles & Market Place
- New Los Angeles & Science Dr./Miller Parkway
- Los Angeles Avenue & Moorpark Avenue
- Poindexter/1st Street
- High Street
- Casey Road
- SR-23 & SR-126

ALTERNATE ROUTES: Moorpark Road parallels the freeway portion of the route for its entire length (PM R3.34/T12.26). Between the US-101 and Olsen Road (PM R3.34/R8.21), Erbes Road provides eastern parallel service. Kanan Dume road, located 5 miles to the east, parallels segment 1. There are no parallel facilities for the rural portion of the conventional highway (PM Ven T12.26/24.17)

Congestion results primarily from a lack of capacity to accommodate existing and projected traffic demand. Operating deficiencies occur when the existing facility or projected LOS falls below the concept LOS.

The area of concern is segment 3 (US-101 to SR-118), which is the freeway portion of the route. This segment is congested during peak periods with delays, backup, and stop and go conditions southbound during AM and PM peak periods and northbound during PM peak period.

This segment of the route is currently operating at level of service LOS F0 on the southbound side during the AM peak period and the northbound side during the PM peak.

Rail Transit Service:

The Moorpark Metrolink/Amtrak Station can be directly accessed from SR-23 at Spring Road. Daily Amtrak service is available from San Luis Obispo to San Diego connecting with other trains and routes in Los Angeles at Union Station. Metrolink commuter rail provides weekday service between the cities of Ventura and Los Angeles.

Bicycle Trails:

There is a bike lane on SR-23 between Olsen Road and Tiera Rejada Road for approximately 2 miles.

Bus Transit: VISTA Express Transit service provides service along the SR-23 corridor connecting Westlake Village with the Moorpark Metrolink station and making stops at the Thousand Oaks Transit Center and the Thousand Oaks Library.

Park and Ride: Caltrans' Park and Ride Program was initiated in the late 1970's. This program was a way to relieve congestion on the state highway system. The building of Park and Ride lots peaked around the mid 1980's, then subsided during the mid 1990's. This subsidence originated from Senate Bill 45, which re-

allocated 75% of the state highway funding to local and regional agencies; thus leaving Caltrans with 25% of the remainder to fund the rest of its programs. Currently, the remaining Park and Ride lots are preserved by each Caltrans District's maintenance Division.

There are 151 Park and Ride Facilities within Caltrans District 7. Of the 151 Park and Ride lots, 52 are state owned, while the rest are owned by either county, local, or private enterprise, there are also 24 leased or "shared use" Park and Ride lots. These Park and Ride lots, which also complement the High Occupancy Vehicle (HOV) network, function as an integral element in Caltrans' strategies for long-range congestion management.

Currently, there are three Park and Ride lots near this corridor. These lots are located at the Thousand Oaks Transit Center located off Rancho Road south of the SR-23/US-101 interchange, the Thousand Oaks Library on SR-23 at Janss Road, and The Oaks Mall on Hillcrest Drive.

GOODS MOVEMENT

The economic vitality and well being of Southern California region depends upon the safe and timely transport of goods as well as people. Current levels of congestion are detrimental to this vitality, and future projections indicate that this situation will get much worse. In terms of freight alone, the SCAG RTP forecasts the amount of cargo brought into the Region by seaports and airports to greatly increase over the next 25 years as international trade volume triples. The 2004 SCAG RTP states that the SCAG model projects an increase of over 110 percent in truck vehicle miles traveled (VMT) by 2030. Significant actions need to be taken to protect the economic well being of the region. These include improved rail service, including more grade separations; additional and improved intermodal transfer facilities; truck lanes on major truck routes; improved access to and enhanced cargo handling capabilities at seaports; and improved air cargo accessibility with separation from passenger activities at airports. Some of the specific conditions that may affect SR-23 are as follows:

Truck: SR-23, from SR-1 to US-101, is a California Legal Advisory Route, which means that California (CA) Legal trucks have access to the system except where prohibited. Travel is not advised if Kingpin to Rear Axle (KPRA) length is over the posted value. Advisories range from 30 to 38 feet. From US-101 to SR-118 is part of the National Network for Surface Transportation Assistance Act (STAA). STAA trucks are limited to routes that provide reasonable access to terminals and facilities for purposes limited to fuel, food, lodging, and repair when that access is consistent with safe operation and when the facility is within one road mile of identified points of ingress and egress. From SR-118 to Shekell Road (P.M. 17.8), SR-23 is part of the California Legal Network. From Shekell Road to SR-126, the route is a California Legal Advisory Route.

Airports: Nearby airports include the Oxnard and Camarillo Airports. The Oxnard Airport is located on the coastal edge of Oxnard. It is a 216-acre airport, which is classified as a non-hub commercial service airport with commuter flights currently serving the Los Angeles World Airport. Commuter service is provided by United Express Airline. The Camarillo airport is located on the southwest corporate limits of the city of Camarillo. It is classified as a general aviation reliever airport for the Los Angeles area, supporting a wide range of general aviation activity.

Seaports: The Oxnard Harbor District is an independent and political subdivision of the State of California, which owns and operates the commercial Port of Hueneme, an important freight activity center in Ventura County. The Port of Hueneme Terminal and Multimodal Expansion program completed in 1999 greatly enhanced the Port's ability to handle refrigerated containers and roll-on/roll-off cargo. A new rail yard will create a flow of cargo in the terminal areas between ship, truck or rail.

Pipeline: The Pipeline Network of California is part of the Goods Movement Strategy as described in the California Transportation Plan 2025. These pipelines carry natural gas, crude oil and refined petroleum products through an under-

ground system. Major pipelines within Ventura County carry crude oil and natural gas, generally along highways and railroad lines.

X. IMPROVEMENTS

These seven programming documents provide a mechanism for project funding within the region. The following is a brief description of each.

Regional Transportation Improvement Program (RTIP) -- A five-year list of proposed transportation projects. The Regional Transportation Planning Agency (RTPA) submits the RTIP to the California Transportation Commission (CTC) as a request for State Funding. If RTIP projects have federal funding components, they will also appear in the FTIP once selected for the STIP (see below).

Interregional Improvement Program (IIP) -- A five-year program developed by Caltrans that includes projects developed through the Interregional Road System Plan, Intercity Rail, Soundwall, Toll Bridge, and Aeronautics programs.

State Transportation Improvement Program (STIP) -- A five-year list of transportation projects proposed in RTIP's and PSTIP's that the CTC adopts. Those projects that have federal funding components will also appear in the FTIP and FSTIP.

State Highway Operation and Protection Program (SHOPP) -- A ten-year Master Plan and a four-year program limited to projects related to State highway safety and rehabilitation.

Federal Transportation Improvement Program (FTIP) -- A 3 to 5 year list of all transportation projects proposed for federal funding under TEA-21, within the planning area of an MPO. An MPO develops the FTIP and the Director of Caltrans approves it. In air quality non-attainment areas, the plan must conform to a State Implementation Plan.

Federal State Transportation Improvement Program (FSTIP) -- A three-year list of transportation projects proposed for funding under ISTEA developed by the State in cooperation with MPO's and in consultation with local non-urbanized

governments. The FSTIP includes all FTIP projects as well as other federally funded rural projects.

Traffic Operations Program Strategies (TOPS) -- A program developed by Caltrans and the CHP to ensure the safety and service of California motorists by implementing the latest in interactive/integrated transportation management and information systems. Caltrans and the CHP use sophisticated electronic technologies to process and analyze freeway traffic data, to monitor traffic flow in order to rapidly detect and effectively respond to incidents and resulting congestion. Implementation of TOPS includes minor operational improvements i.e. geometric upgrades and major capital improvements i.e., geometric upgrades fiber optics/closed circuit cable television monitoring system, changeable message signs and ramp meters) and major capital improvements (i.e., HOV lanes, ramp upgrades, auxiliary lanes, and freeway connector metering. Also included in the plan are additional freeway lanes, direct HOV connectors, and Changeable Message Signs (CMS) and Highway Advisory Radio (HAR).

PROGRAMMED IMPROVEMENTS

County/Rte./PM	Project Limits	Project Description	EA #	Est. Cost	Start/Completion Date
Ven-23 03.5R/11.4R	US-101 to New Los Angeles Avenue	Widen to 6 lanes	11545	Capital: \$58.94M Support: \$11.17M	2006/2010

OTHER RECOMMENDED IMPROVEMENTS

Ventura County Congestion Management Program Recommendations:

- Seek funding sources to expedite the widening project.
- Provide operational and safety improvements to the northern portion of SR-23 including guardrails, left turn lanes, shoulder widening, etc.

- Add a fourth lane in each direction on freeway segment where needed and consider designating one-lane for peak hour carpools and buses if warranted.
- Consider the installation of ramp meters where appropriate.

ENVIRONMENTAL CONSIDERATIONS

Any projects generated, as a result of this report will be subject to the California Environmental Quality Act (CEQA) and the National Environment Policy Act (NEPA) evaluation.

XI. TRANSPORTATION CONCEPT AND CONCLUSIONS

TRANSPORTATION CONCEPT: The transportation concept describes the operating conditions and physical facilities required to provide those conditions that could exist on SR-23 after considering the conclusions, priorities, and strategies discussed in the District System Management Plan (DSMP), the SCAG Regional Transportation Plan (RTP), and the Ventura County Congestion Management Program. The route concept represents what could reasonably be accomplished to facilitate the mobility of traffic desiring to use the route. It assumes that management improvement strategies and system operation management improvements to maximize the efficiency on SR-23 will be implemented.

The transportation concept is composed of a Level of Service (LOS) and facility component. The concept LOS indicates the minimum level of service the District would allow on a route prior to proposing an alternative to improve operating conditions. The concept facility is the facility that could be developed to maintain or attain the concept LOS.

The recommended transportation concept for SR-23 is to maintain the existing facility on segments 1, 2 & 4. On segment 3, modeling data indicates future congestion, therefore, the recommended transportation concept is Alternative #2, which entails adding 1 mixed flow and 1 HOV lane in each direction.

CONCLUSIONS: Modeling data indicate that future traffic on this route will remain similar to current conditions in segments 1, 2 & 4, however, it shows an increase in congestion in segment 3. Although no capacity is being added to segments 1, 2, & 4, there are improvements in terms of speed, Demand/Capacity (D/C) ratios and timesavings in the overall highway system. This is due to the fact that there are other improvements to the surrounding system.

XII. BIBLIOGRAPHY

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GLOSSARY

AA DT: (Average Annual Daily Traffic) Denotes that the daily traffic is averaged over one calendar year.

AD T: (Average Daily Traffic) The average number of vehicles passing a specified point during a 24-hour period.

AQ MD: (Air Quality Management District) A regional agency, which adopts and enforces regulations to achieve and maintain state and federal air quality standards.

AQ MP: (Air Quality Management Plan) The plan for attaining state air quality as required by the California Clean Air Act of 1988. The plan is adopted by air quality districts and is subject to approval by the California Air Resources Board.

AV O: (Average Vehicle Occupancy) The average number of persons occupying a passenger vehicle along a roadway segment intersection, or area, as typically monitored during a specified time period. For the purpose of the California Clean Air Act, passenger vehicles include autos, light duty trucks, passenger vans, buses, passenger rail vehicles and motorcycles.

AV R: (Average Vehicle Ridership) The number of employees who report to a worksite divided by the number of vehicles driven by those employees, typically averaged over an established time period. This calculation includes crediting vehicle trip reductions from telecommuting, compressed workweeks and non-motorized transportation.

Caltrans: (California Department of Transportation) The owner/operator of the state highway system. State agency responsible for its safe operation and maintenance. Proposes projects for intercity rail, interregional roads, and sound walls. The implementing agency for most state highway projects, regardless of program, and for the Intercity Rail program.

CBD: (Central Business District) The downtown core area of a city, generally an area of high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels, and service businesses.

CCTV: (Closed Circuit Television)

CE: (Commuter Express) Operated by Los Angeles Department of Transportation

CEQA: (California Environmental Quality Act) A statute that requires all jurisdictions in the State of California to evaluate the extent of environmental degradation posed by proposed development or project.

CMA: (Congestion Management Agency) The agency responsible for developing the Congestion Management Program and coordinating and monitoring its implementation.

CMAQ: (Congestion Mitigation Air Quality program) Part of ISTEA, this is a funding program designed for projects that contribute to the attainment of air quality goals.

CMP: (Congestion Management Program) A legislatively required countywide program, which addresses congestion problems.

CMS: (Changeable Message Sign)

CMS: (Congestion Management System) Required by ISTEA to be implemented by states to improve transportation planning.

COG: (Council of Governments) A voluntary consortium of local government representatives, from contiguous communities, meeting on a regular basis, and formed to cooperate on common planning and solve common development problems of their area. COGs can function as the RTPAs and MPOs in urbanized areas.

Commute Hours: AM and PM peak commute travel times. Generally, between the hours of 5:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m., Monday through Friday.

Concept: A strategy for future improvements that will reduce congestion or maintain the existing level of service on a specific route.

Congestion: Defined by Caltrans as, reduced speeds of less than 35 miles per hour for longer than 15 minutes.

CTC: (California Transportation Commission) A body established by Assembly Bill 402 (AB 402) and appointed by the Governor to advise and assist the Secretary of the Business, Transportation and Housing Agency and the Legislature in formulating and evaluating state policies and plans for transportation.

D/C: (Demand-to-Capacity ratio) The relationship between the number of vehicle trips operating on a facility, versus the number of vehicle trips that can be accommodated on that facility.

DSMP: (District System Management Plan) A part of the system planning process. A district's long-range plan for management of transportation systems in its jurisdiction.

Extended Commute: Service hours beyond the normal commute hours. Generally, in the evening, this refers to transit service until 10:00 p.m.

F+I Actual: (Fatal Plus Injury Actual) Contains specific data for accidents that are State highway related. Each accident record contains a ramp, intersection or highway postmile address that ties it to the Highway database.

F+I Average: (Fatal Plus Injury Average) The Statewide Average Accident Rate (SWA) is based on a rated segment. The accident-rating factor (ARF) indicates how the existing segment compares to other segments on the State Highway System. The ARF is a comparison of the segment's accident rate to the statewide average accident rate for roads of the same type and having similar characteristics. Accident severity as well as accident frequency is considered in calculating the ARF. If the total number of accidents is less than three, there will not be a calculation for the ARF. If there are more than two, but less than twenty-five total accidents, an accident-rating factor will be generated, but there will not be an accident severity flag listed. If there are more than twenty-five accidents, an accident rating factor and severity flag will be generated.

F+I/MVM: (Fatal Plus Injury per Million Vehicle Miles) The fatality rate of those killed in vehicles plus the injury rate of those injured in vehicles.

FAI: (Federal Aid Interstate) Highway program established in 1956 for national defense purposes, these roadways interconnect the major nationwide population and economic centers. Also, there is a federal funding category for these routes.

FHWA: (Federal Highway Administration)

Free-flow Speed: Speed that occurs when density and flow are "zero".

Freeway Capacity: The maximum sustained 15 minute rate of flow that can be accommodated by a uniform freeway segment under prevailing traffic and roadway conditions in a specified direction.

FSP: (Freeway Service Patrol) A special team of tow truck drivers who continuously patrol freeways during commuter hours to help clear disabled automobiles.

HSR: (High Speed Rail) A regional system that will connect major regional activity centers and significant inter-/multi-modal transportation facilities.

I/C: (Interchange) A system of interconnecting roadways in conjunction with one or more grade separations providing for the interchange of traffic between two or more roadways on different levels.

ICES: (Intermodal Corridors of Economic Significance) Significant National Highway System Corridors that link intermodal facilities most directly, conveniently and efficiently to intrastate, interstate and international markets.

IRRS: (Interregional Road System) A series of interregional state highway routes, outside the urbanized areas, that provide access to, and links between, the state's economic centers, major recreational areas, and urban and rural regions.

ISTEA: (Intermodal Surface Transportation Efficiency Act) Federal legislation and funding Program adopted in 1991. It provides increased funding and program flexibility for multi-modal transportation programs. Update: ISTEA expired on September 30, 1997. In December 1997, Congress passed and the President signed a six-month extension of the law, holding funding to current levels and keeping program structure and formulas intact. This extension expired on March 31, 1998, with an obligation deadline of May 1, 1998. On June 9, 1998, the President signed into law PL 105-178, the Transportation Equity Act for the 21st Century (TEA-21) authorizing highway, highway safety, transit and other surface transportation programs for the next 6 years. TEA-21 builds on the initiatives established in the 1991 ISTEA.

ITIP: (Interregional Transportation Improvement Program) An improvement program that makes up 25% of the STIP. 60% of this program is for improvements on Interregional Routes in non-urbanized areas and intercity rail. 40% is to fund projects of interregional significance (for the interregional movement of people and goods).

ITMS: (Intermodal Transportation Management System) A quick-response statewide sketch planning tool to assist planners in evaluating proposals in order to improve spending decisions. It provides the capability to analyze the current transportation network and to evaluate the impacts of investment options at the corridor area or statewide level.

ITS: (Intelligent Transportation Systems) The application of electronics and computer information systems to transportation.

ITSP: (Interregional Transportation Strategic Plan) Caltrans guiding framework for implementing the Interregional Improvement Program under Senate Bill 45.

IVHS: (Intelligent Vehicle Highway Systems) The development of application of electronics, communications or information processing (including advanced traffic management systems, public transportation systems, satellite vehicle tracking systems, and advanced vehicle

communications systems) used alone or in combination to improve the efficiency and safety of surface transportation systems.

LAX: (Los Angeles International Airport)

LOS: (Level of Service) A qualitative measure describing operational conditions within a traffic stream; generally described in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety.

MF: (Mixed Flow) Traffic movement having automobiles, trucks, buses, and motorcycles sharing traffic lanes.

Model: (1) A mathematical or conceptual presentation of relationships and actions within a system. It is used for analysis of the system or its evaluation under various conditions. (2) A mathematical description of a real-life situation, that uses data on past and present conditions to make a projection about the future.

Model, Land Use: A model used to predict the future spatial allocation of urban activities (land use), given total regional growth, the future transportation system, and other factors.

Model, Mode Choice: A model used to forecast the proportion of total person trips on each of the available transportation modes.

Model, Traffic: A mathematical equation or graphic technique used to simulate traffic movements, particularly those in urban areas or on a freeway.

MPO: (Metropolitan Planning Organization) According to U.S. Code, the organization designated by the governor and local elected officials as responsible, together with the state, for the transportation planning in an urbanized area. It serves as the forum for cooperative decision making by principal elected officials of general local government.

Multi-modal: Pertaining to more than one mode of travel.

NHS: (National Highway System) will consist of 155,000 miles (plus or minus 15 percent) of the major roads in the U.S. Included will be all Interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

Null: A concept that includes only existing projects and those projects which may or may not be constructed but are programmed in the 1996 STIP.

Peak: (Peak Period, Rush Hours): (1) The period during which the maximum amount of travel occurs. It may be specified as the morning (a.m.) or afternoon or evening (p.m.) peak. (2) The period during which the demand for transportation service is the heaviest. (AM Peak period represents 6:30 a.m. to 8:30 a.m. and PM Peak period represents 3:00 p.m. to 6:00 p.m.)

Performance Indicator: Quantitative measures of how effective an activity, task, or function is being performed. In transportation systems, it is usually computed by relating a measure of service output or use to a measure of service input or cost.

PM: (Post Mile) Is the mileage measured from a county line or the beginning of a route to another county line or the ending of the route. Each post mile along a route in a county is a unique location on the State Highway System.

PMT: (Passenger Miles Traveled) The number of miles traveled by all passengers on a transportation mode such as transit.

PPN: (Planning and Program Number) Used in the State Transportation Improvement Program (STIP) to identify projects.

PSR: (Project Study Report) The pre-programming document required before a project may be included in the STIP.

Public Transportation: Transportation service to the public on a regular basis using vehicles that transport more than one person for compensation, usually but not exclusively over a set route or routes from one fixed point or another. Routes and schedules may be determined through a cooperative arrangement. Subcategories include public transit service, and paratransit services that are available to the general public.

Ridesharing: Two or more persons traveling by any mode, including but not limited to, automobile, vanpool, bus, taxi, jitney, and public transit.

RMP: (Regional Mobility Plan) The equivalent to the federal and state required Regional Transportation Plan (RTP) for the SCAG region.

Roadway Characteristics: The geometric characteristics of the freeway segment under study, including the number and width of lanes, lateral clearances at the roadside and median, free-flow speeds, grades and lane configurations.

RSA: (Regional Statistical Area) An aggregation of census tracts for the purpose of sub-regional demographic and transportation analysis within the Southern California Association of Governments (SCAG) area.

RTIP: (Regional Transportation Improvement Program) A list of proposed transportation projects submitted to the CTC by the regional transportation planning agency, as a request for state funding through the FCR and Urban and Commuter Rail Programs. The individual projects are first proposed by local jurisdictions (CMAs in urbanized counties), then evaluated and prioritized by the RTPA for submission to the CTC. The RTIP has a seven-year planning horizon, and is updated every two years.

RTP: (Regional Transportation Plan) A comprehensive 20-year plan for the region, updated every two years by the regional transportation-planning agency. The RTP includes goals, objectives, and policies, and recommends specific transportation improvements.

RTPA: (Regional Transportation Planning Agency) The agency responsible for the preparation of RTPs and RTIPs and designated by the State Business Transportation and Housing Agency to allocate transit funds. RTPAs can be local transportation commissions, COGs, MPOs or statutorily created agencies. In the Los Angeles area, SCAG is the RTPA.

SAFETEA: Safe, Accountable, Flexible and Efficient Transportation Act: A Legacy for Users.

SCAG: (Southern California Association of Governments) The Metropolitan Planning Organization (MPO) for Ventura, Los Angeles, Orange, San Bernardino, Riverside and Imperial counties that is responsible for preparing the RTIP and the RTP. SCAG also prepared land use and transportation control measures in the 1994 Air Quality Management Plan (AQMP).

SHOPP: (State Highway Operation and Protection Program) A four-year program limited to projects related to State highway safety and rehabilitation.

SR: (State Route)

STAA: (Surface Transportation Assistance Act)

STIP: (State Transportation Improvement Program) A list of transportation projects, proposed in RTIPs and the PSTIP, which are approved for funding by the CTC.

STP: (Surface Transportation Program) Part of ISTEA, this is a funding program intended for use by the states and cities for congestion relief in urban areas.

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STRAHNET: (Strategic Highway Corridor Network)

TASAS: (Traffic Accident Surveillance and Analysis System) A system that provides a detailed list and/or summary of accidents that have occurred on highways, ramps or intersections in the State Highway System. Accidents can be selected by location, highway characteristics, accident data codes or any combination of these.

TCM: (Transportation Control Measure) A measure intended to reduce pollutant emissions from motor vehicles. Examples of TCMs include programs to encourage ridesharing or public transit usage, city or county trip reduction ordinances, and the use of cleaner burning fuels in motor vehicles.

TCR: (Transportation Concept Report) Formerly Route Concept Report (RCR) this report analyzes a transportation corridor service area, establishes a twenty-year transportation planning concept and identifies modal transportation options and applications needed to achieve the twenty-year concepts.

TDM: (Transportation Demand Management) Demand based techniques for reducing traffic congestion, such as ridesharing programs and flexible work schedules enabling employees to commute to and from work outside of peak hours.

TEA-21: (Transportation Equity Act for the 21st Century) Signed by President Clinton on June 9, 1998. TEA-21 builds on the initiatives established in the ISTEA Act of 1991. This new Act combines the continuation and improvement of current programs with new initiatives to meet the challenges of improving safety as traffic continues to increase at record levels, protecting and enhancing communities and the natural environment as we provide transportation, and advancing America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.

TMC: (Transportation Management Center) A focal point that can monitor traffic and road conditions, as well as train and transit schedules, and airport and shipping advisories. From here, information about accidents, road closures and emergency notifications is relayed to travelers.

TOPS: (Traffic Operations Strategies) An implementation plan to improve the overall operation of the State transportation system.

TOS: (Traffic Operation System) Computer based signal operation.

TOT/MVM: (Total Accidents Per Million Vehicle Miles)

Traffic Conditions: Any characteristics of the traffic stream that may affect capacity or operations, including the percentage composition of the traffic stream by vehicle type and driver characteristics (such as the differences between weekday commuters and recreational drivers).

TSM: (Transportation System Management) That part of the urban transportation Process undertaken to improve the efficiency of the existing transportation system. The intent is to make better use of the existing transportation system by using short-term, low capital transportation improvements that generally cost less and can be implemented more quickly than system development actions.

TW: (Transitway)

Vehicle Occupancy: The number of people aboard a vehicle at a given time; also known as auto or automobile occupancy when the reference is to automobile travel only.

Vehicle Trip: A one-way movement of a vehicle between two points.

V/C: (Volume/Capacity).

VMT: (Vehicle Miles Traveled) (1) On highways, a measurement of the total miles traveled in all vehicles in the area for a specified time period. It is calculated by the number of vehicles multiplied by the miles traveled in a given area or on a given highway during the time period. (2) In transit, the number of vehicle miles operated on a given route or line or network during a specified time period.