SR 36
Transportation Concept Report

Traffic Assessment/Facility Concept

Introduction

This section provides a summary of current and future traffic volumes, level of service and the facility concept for SR 36.

Route Segments

For purposes of analysis, highways are divided into smaller pieces called segments. Each segment selected has one or more characteristics that distinguish it from other segments. Information that is obtained and/or developed at the segment level includes traffic growth projections, present and future level of service, target (concept) level of service, environmental issues, right of way and adjoining land uses. This information is used during assessment of the potential need for operational and capacity improvements, as well as in subsequent development of project initiation documents.

Criteria considered in the selection of segments for analysis include:

- Change in route concept.
- Change in facility type.
- Change in function or use of route.
- Significant changes in ADT.
- Significant changes in terrain or grade.
- Junction/crossing of other highway or major facility.
- Urban/rural boundaries or other significant change in land use.
- District/County boundaries.

State Route 36 is broken down into 19 segments for analysis purposes.

This page intentionally left blank

Level of Service

Level of Service (LOS) is a qualitative measure used to describe operating conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six LOS are defined for each type of facility analyzed. Letters designate each level, from "A" to "F", with LOS "A" representing the best operating conditions and LOS "F" the worst. **Table 20** provides Average Daily Traffic and LOS information for 2010, 2020 and 2030.

Appendix K describes methodology used for LOS determinations.

Target LOS: C/D Threshold

Caltrans District 2 seeks to implement improvements on SR 36 when LOS is projected to fall below LOS C. This improvement standard is commonly referred to as the "C/D" Threshold". When a segment is forecasted to fall to LOS D, then improvements should be considered. Caltrans District 1 identifies improvements as described in the Caltrans District 1 Route Concept Report for Route 36 in Humboldt County available at the following web site link: http://www.dot.ca.gov/dist1/d1transplan/r36.pdf

Concept LOS:

The concept LOS for SR 36 within District 2 is the C/D threshold.

This page intentionally left blank

Table 20
Average Daily Traffic and Level of Service Summary

Segment No.	Segment Description	CO	Begin Post Mile	End Post Mile	2010		2020		2030	
					Average Daily Traffic	LOS	Average Daily Traffic	LOS	Average Daily Traffic	LOS
01	US 101 to Redwood House Road (East of Carlotta)	HUM	0.00	11.50	2100-4300	B	2150-5600	B	2200-6800	B
02	Redwood House Road (East of Carlotta) to Bridgeville	HUM	11.50	24.80	1400-1600	B	1500-1700	B	1600-1700	B
03	Bridgeville to HUM/TRI County Line	HUM	24.80	45.68	1100-1300	C	1200-1400	C	1300-1500	C
04	HUM/TRI County Line to SR 3	TRI	0.00	R28.65	600-1500	B	800-2100	B	1100-2600	B
05	SR 3 to TRI/SHA County Line	TRI	R28.65	R41.14	300-340	B	500-600	B	700-800	B
06	TRI/SHA County Line to SHA/TEH County Line	SHA	0.00	11.93	300-650	B	500-900	B	700-1100	B
07	SHA/TEH County Line to Oak Knoll Road	TEH	0.00	R33.74	470-1450	B	800-2200	B	1000-2800	B
08	Oak Knoll Road to Main St.	TEH	R33.74	L39.73	1450-3250	B	2800-5200	B	3900-6800	C
09	Main St. to Jct. I-5	TEH	L39.73	41.85	6900-21500	C	7900-24000	C	8700-24500	D/ C[1]
10	Jct. I-5 to Jct. SR 99	TEH	41.85	44.00	11700-19500	B	12700-24400	C	13500-28400	C
11	Jct. SR 99 to Morgan Summit	TEH	44.00	87.79	850-1850	B	1100-2300	B	1300-2600	B
12	Morgan Summit to TEH/PLU County Line	TEH	87.79	104.00	700-1800	B	800-2300	B	900-2600	B
13	TEH/PLU County Line to Jct. SR 89 South	PLU	0.00	6.29	1800-2050	B	2300-2500	B	2600-2900	C
14	Jct. SR 89 South to Melissa Avenue	PLU	6.29	9.18	3400-5100	C	3800-7300	C	4200-8100	D/C[2]
15	Melissa Avenue to PLU/LAS County Line	PLU	9.18	18.42	1900-4750	C	3000-6200	C	3400-6600	C[3]
16	PLU/LAS County Line to Jct. SR 44	LAS	0.00	R19.20	2200-2400	B	3000-3400	B	3100-3900	C
17	Jct. SR 44 to Susanville City Limits	LAS	R19.20	24.26	3750-5600	B	4500-7100	C	5100-8400	C
18	Susanville City Limits to County Road A27/ Johnstonville Rd.	LAS	24.26	R26.22	12400-14500	D	14300-22500	E/D[4]	15900-29000	E/C[5]
19	County Road A27/Johnstonville Rd. to Jct. US 395 South	LAS	R26.22	R29.39	9000-9500	D	12600-13200	E/C[6]	15600-16300	E/C[6]

[1] LOS D reflects existing 2-lane & 4-lane configuration, LOS C reflects expanding entire segment to 4-lane.

[2] LOS D reflects existing 2-lane & 4-lane configuration, LOS C reflects expanding all to 4-lane with signals.

[3] LOS C reflects addition of signal at the junction of County Road A13/SR 36.

[4] LOS D reflects completion of Skyline and Skyline Extension projects.

[5] LOS C reflects completion of Skyline and Skyline Extension projects and relief route.

[6] LOS C reflects expanding segment to 4-lane.

This page intentionally left blank

Facility Concept

Facility Concept is a general term used to describe the number of lanes and degree of access control on a State Route or Freeway. Existing facility is used to describe the current, built facility. Facility Concept and Post 20-year Concept are terms used to describe the facility that will be required in the future to maintain the concept level of service under projected traffic volumes. Specific features such as turn lanes, traffic signals, bike lanes, intersection improvements may also be appropriate and included in the design of projects.

Based on the continued slow traffic growth rate of (1.0-1.5% per year) in rural areas, the Facility Concept for the majority of SR 36 will continue to be a two-lane conventional highway with intermittent passing lanes. Under a conventional designation, the District will maintain but not expand existing access control.

Some sections of SR 36 within the communities of Red Bluff, Chester and Susanville currently have 4-lanes. These existing 4-lane sections have sufficient capacity to accommodate forecast traffic volumes. However, traffic volume forecasts in these three communities show that operations on SR 36 will fall below target Level of Service (LOS) in the 2-lane sections in the future. Thus, in the future, expanding these 2-lane sections to 4-lanes will be necessary to maintain target LOS.

Red Bluff

- Maintain and manage existing 4-lane section (PM L 40.87 to 44.0).
- Expand 2-lane section between Main Street and Crittenden (PM L39.73 to L40.87) to 4-lane with two-way center turn lane.
- Add traffic control devices (signals and/or roundabouts) as appropriate.
- Traffic signal synchronization.
- Consider non-motorized, transit and complete streets opportunities.

In Chester

- Maintain and manage existing 4-lane section (PM 8.17-8.84).
- Expand 2-lane section between SR 89 South and Collins Road (6.29 to 8.17) to 4-lane with two-way center turn lane.
- Add traffic control devices (signals and/or roundabouts) as appropriate.
- Consider non-motorized, transit and complete streets opportunities.

In Susanville

- Maintain and manage existing 4-lane section (PM25.40 to R 26.22).
- Expand 2-lane section between 26.22 to R 26.34 to 4-lane with two-way center turn lane.
- Expand 2-lane section between R 26.34 to R 29.40 from 2-lane expressway to 4-lane expressway.
- Add traffic control devices (signals and/or roundabouts) as appropriate.
- Consider non-motorized, transit and complete streets opportunities.

Capacity expansion and/or operational improvements needed to address level of service issues in these areas will be identified and developed in cooperation with the Local County Transportation Commissions, cities, and other interested stakeholders.

Table 21 - Facility Concept: summarizes the facility concept for SR 36.

This page intentionally left blank

Table 21
Facility Concept

County	Post Mile Limits	Facility Concept	Twenty-Year Facility Concept	Post Twenty-Year Concept
US 101 to SR 99 Junction				
HUM	0.0/45.68	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
TRI	0.00/ R41.14	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
SHA	0.00/11.93	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
TEH	0.00/R33.74	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
TEH	R33.74/L39.73	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
TEH	L39.73/ L40.87	2-Lane Conventional	4-Lane Conventional[1]	4-Lane Conventional
TEH	L40.87/44.0	4-Lane Conventional	4-Lane Conventional	4-Lane Conventional
TEH	44.0/87.79	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
SR 99 Junction to SR 89 Junction (South)				
TEH	87.79/104.00	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
PLU	0.00/6.29	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
SR 89 Junction (South) to US 395				
PLU	6.29/8.17	2-Lane Conventional	4-Lane Conventional[2]	4-Lane Conventional[2]
PLU	8.17/8.84	4-Lane Conventional	4-Lane Conventional	4-Lane Conventional
PLU	8.84/R13.93	2-Lane Conventional	2-Lane Conventional	4-Lane Conventional[3]
PLU	R13.93/18.42	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
LAS	0.00/24.54	2-Lane Conventional	2-Lane Conventional	2-Lane Conventional
LAS	24.54/R26.22	4-Lane Conventional	4-Lane Conventional	4-Lane Conventional
LAS	R26.22/R29.40	2-Lane Conventional/ Expressway	4-Lane Conventional/ Expressway [4&5]	4-Lane Conventional/ Expressway [4&5]

[1] Within the City of Red Bluff

[2] Within the community of Chester

[3] Within and East of the community of Chester

[4] East of the City of Susanville

[5] Existing access control will be maintained.

Note: improvements such as passing or climbing lanes, including channelization may be needed in some areas designated as "2-Lane"- See segment fact sheets for more details.

Source: Caltrans, District 2, Office of System Planning

SR 36 passes through many small rural communities where it serves as the "main street". It will be important for Caltrans to work with communities and consider appropriate context sensitive solutions to meet the Department of Transportation standards while incorporating the needs and desires of the community. When developing transportation improvements, it may be appropriate to include elements that enhance shared use with bicycle and pedestrian traffic.

Design Concept

Table 22 identifies the Design Concept for SR 36 that is established for the outside shoulder width, travelled way width and clear recovery zone. A full description of design standards is provided in the Highway Design Manual.

This page intentionally left blank

Table 22 Design Concept					
County	**Begin Post Mile**	**End Post Mile**	**Shoulder Width[1]**	**Lane Width[2]**	**Clear Recovery[3]**
HUM	0.0	11.5	Construct to current design standards in conjunction with rehabilitation or reconstruction projects, or obtain a design exception (see below)		
HUM	11.5	24.80			
HUM	24.80	45.68			
TRI	0.00	R28.65	4 ft.	12 ft.	20 ft.
TRI	R28.65	R41.14	2 ft.	12 ft.	20 ft.
SHA	0.00	11.93	2 ft.	12 ft.	20 ft.
TEH	0.00	R33.74	4 ft.	12 ft.	20 ft.
TEH	R33.74	L39.73	8 ft.	12 ft.	20 ft.
TEH	L39.73	41.85	8 ft.	12 ft.	20 ft.
TEH	41.85	44.0	8 ft.	12 ft.	20 ft.
TEH	44.0	87.79	4 ft.	12 ft.	20 ft.
TEH	87.79	104.00	4 ft.	12 ft.	20 ft.
PLU	0.00	6.29	8 ft.	12 ft.	20 ft.
PLU	6.29	9.18	8 ft.	12 ft.	20 ft.
PLU	9.18	18.42	8 ft.	12 ft.	20 ft.
LAS	0.00	R19.2	8 ft.	12 ft.	20 ft.
LAS	R19.2	24.26	8 ft.	12 ft.	20 ft.
LAS	24.26	R26.22	8 ft.	12 ft.	20 ft.
LAS	R26.22	R29.39	10 ft.	12 ft	30 ft.

[1] Under certain conditions, the minimum width of the adjacent right shoulder shall be 4 feet, or 5 feet where a gutter is present.

[2] For roads with curve radii of 300 feet or less, widening due to off-tracking should be considered.

[3] In locations where curbs are present refer to the Highway Design Manual for site-specific design standards.

Shoulder Concept

In general, this Transportation Concept Report proposes using the 3R (Resurfacing, Restoration and Rehabilitation) design standards for shoulder widths. However, in some areas of SR 36, design exceptions may be required due to steep and unstable slopes, close proximity to waterways, and / or old growth redwood trees encroaching on potential shoulder areas.