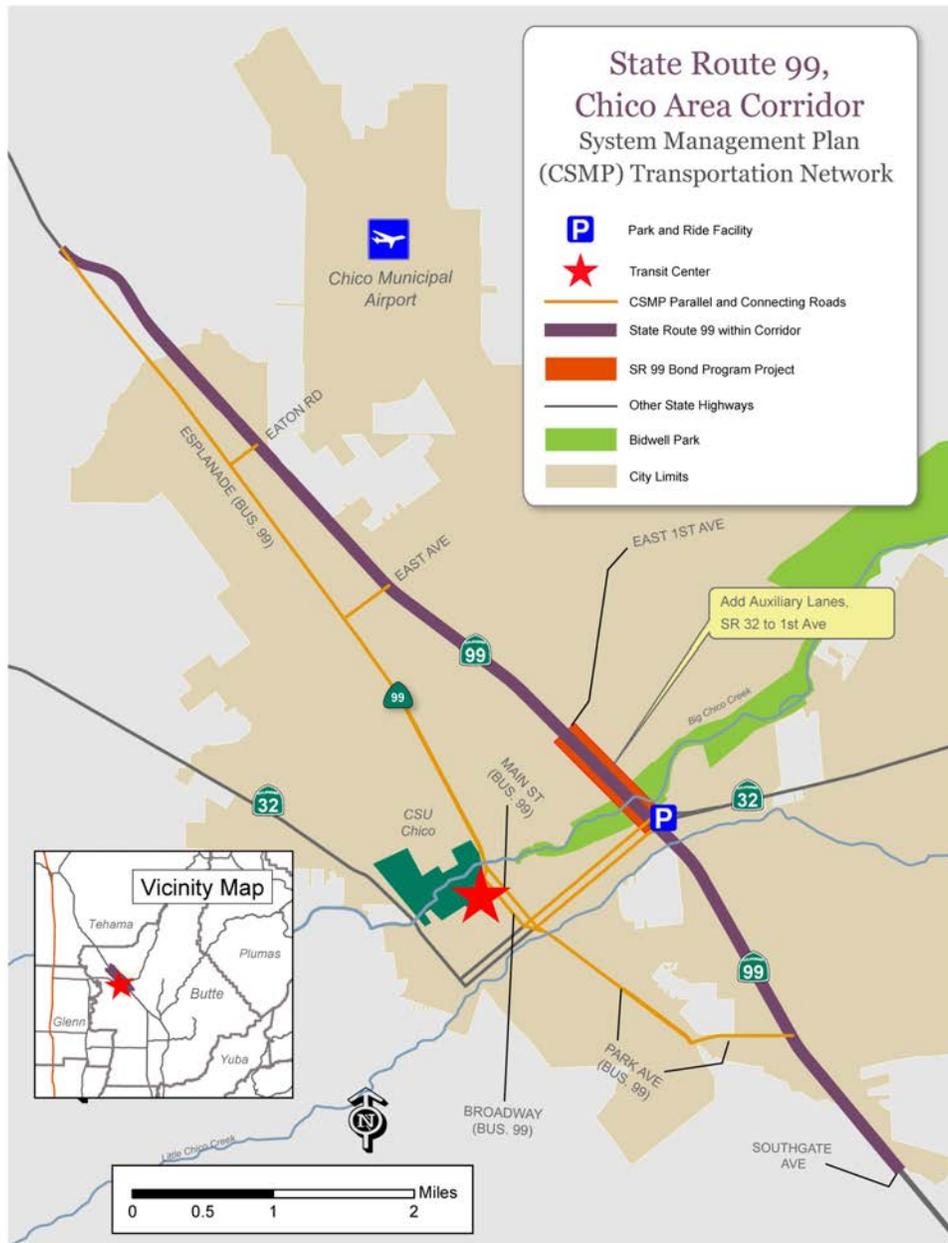




CALTRANS DISTRICT 3

State of the Corridor Report

2010 Report on the State Route 99 North Corridor System Management Plan



Overview

Corridor System Management Plans (CSMP) are comprehensive operations and management plans intended to maintain and enhance corridor mobility through the integrated management of all major transportation modes within the corridor. This includes highways and freeways, parallel and connecting local and regional roadways, public transit and bikeways, along with intelligent transportation technologies, which could include ramp metering, coordinated traffic signals, changeable message signs for traveler information, such as incident management, and transit strategies. Together, these facilities comprise the CSMP managed network. CSMP success is based on the premise of managing a selected set of transportation components within a designated corridor as a system rather than as independent units. Each CSMP identifies current management strategies, existing travel conditions and mobility challenges, corridor performance management, proposed management strategies, and needed capital improvements.

Purpose of the State of the Corridor Report

The annual State of the Corridor (SOTC) Report maintains the momentum started by the completion of the first CSMP by reporting on the ongoing implementation of CSMP strategies and movement towards true integrated multimodal corridor system management, as well as anticipated corridor mobility challenges, and impediments to CSMP implementation. It is important to note that the analysis of performance in the first report since the completion of the CSMP is limited to the State Highway System (SHS) only due to the lack of performance data for the non-SHS transportation modes. Future editions of this report will include a more comprehensive report on integrating additional Intelligent Transportation Systems (ITS) management strategies, and performance of the various transportation modes within the corridor, regardless of ownership, as we move toward integrated performance measurement, management and operations.

Proposition 1B Bond Project Status

CSMPs were developed for corridors associated with the Corridor Mobility Improvement Account and Highway 99 Bond Programs, supported by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, Proposition 1B. One project in the State Route (SR) 99 CSMP was awarded Highway 99 Bond Program funds.

Construct Auxiliary lanes from SR 32 to East 1st Avenue, in City of Chico, Phase II: The California Transportation Commission (CTC) approved a baseline agreement amendment in April 2010 which increased the scope of the project to include southbound auxiliary lane improvements, revised the Right of Way (RW) funding, and updated the project schedule. RW has been certified and the project is ready to advertise. A request to approve the construction funding has been placed on the August 2010 CTC agenda. If approved, the contract for this project is expected to be awarded in January 2011. Construction will begin approximately in the Spring of 2011 and is scheduled to be completed in October 2013.

Major Corridor Accomplishments

SR 32 / East 1st Avenue Auxiliary Lanes, Phase I: This project widened the East First Avenue northbound off ramp from two lanes to three lanes, constructed a new retaining wall and signalized the intersection. Work was completed and opened to traffic in the Spring of 2009.

SR 99 Corridor Bikeway Project, Phase I: The first phase of this project will consist of upgrading existing facilities to a Class II Bikeway from Southgate Avenue to Eaton Road. The project was financed by the American Recovery and Reinvestment Act of 2009 and received construction funding in January 2010. It is anticipated that the contract for this project will be awarded in July 2010 and construction will begin in August 2010.

SR 99 / Skyway Interchange: This project will widen the interchange overcrossing to four lanes and was identified as a "Key Capital Project" in the CMSP. The project was awarded in November 2009. Construction completion is anticipated in February 2011.

SR 99 / Southgate Interchange Project Study Report (PSR): The purpose of the PSR is to replace a signalized intersection with a new interchange to improve operations. It is anticipated that the PSR will be completed by the end of October 2010.

Performance Measures

Continuous corridor monitoring and performance measures are an integral part of corridor management and investment decision making to help identify immediate, efficient, and effective system operational strategies and capital improvements. Performance measures provide the important, dynamic daily information needed to rapidly address operational problems caused by recurrent and non-recurrent traffic congestion.

The 2009 CSMP identified performance measures for the SHS, local roadways, and transit to be used as part of the corridor system management process. This report only includes SHS performance measures. As we continue to strive to establish a multi-modal CSMP, future iterations will include local roadways, transit, and bicycle performance measures.

Table 1 includes the performance measures that were initially identified in the 2009 CSMP and have been updated using traffic counts and Tachometer Run data. We will use this report and the 2009 performance measures as our baseline to track system performance. When electronic detectors are installed in the future, data collection will become more reliable and accurate.

Table 1: US 99N CSMP Highway Performance Measures Summary

County	Location	Post Miles	Distance (Miles)	Average Daily Traffic ¹	Performance Measures (2009 Data)							Distressed Pavement (lane miles) ⁴	2006-2009 Reported Collision Rate Comparison(%) ⁵
					LOS ¹	Total Vehicle Hours of Delay ²	Total Vehicle Hours of Delay ²	Minutes of Delay per Vehicle ²	Minutes of Delay per Person ²	Vehicle Travel Time (Minutes) ²			
						Daily	Peak Hour ³	Peak Hour ³	Peak Hour ³	Peak Hour ³			
BUT	Southgate Avenue to Skyway/Park Avenue	29.37 / 30.30	0.95	32,500	B	22	5	0.24	0.26	1.27	1	58%	
	Skyway/Park Avenue to End of Freeway	30.30 / 37.45	7.13	73,000	D	33	8	0.13	0.15	7.26	14	93%	
	End of Freeway to Esplanade	37.45 / 38.22	0.77	14,700	A	11	3	0.20	0.23	1.04	2	87%	
Total		--	8.85	--	--	66	16	0.57	0.64	9.57	17	--	

¹ Source: Average Annual Daily Traffic and Level of Service (LOS) based on the 2008 Caltrans' *Traffic Volumes on California State Highways* and *Highway Capacity Manual*. LOS Calculation based on 2008 Peak Hour Volumes.

² Source: Delay is the average additional travel time by vehicles/persons traveling under 60 mph for segment #2 and under the posted speed limit for segment #1 and #3. Data derived from Tach Runs and *Highway Capacity Manual* traffic data.

³ Peak Hour is during the hour in which the most hourly delay occurs.

⁴ Source: 2008 Caltrans' Division of Maintenance *Pavement Summary Report*. Distressed pavement is categorized as (1) "Major Structural Distress" which indicates the pavement has severe cracking and is likely to have a poor ride, (2) "Minor Structural Distress", which indicates the pavement has moderate cracking and may have a poor ride, and (3) "Poor Ride Quality (Only)", which indicates the pavement exhibits few cracks but has a poor ride condition. 2009 data not available as of June 3, 2010.

⁵ Source: 2006 through 2009 Caltrans' *Traffic Accident Surveillance and Analysis System (TASAS)* summary data of the percentage above, or below, the statewide average for fatal, injury and property damage-only collisions on comparable facilities.

Moving Forward

The following key opportunities and challenges should be addressed as we move forward to implement system management within this corridor:

Transit and Bicycle Performance Measures: The analysis of transit performance was limited to one performance measure – Available Daily/Peak Hour Capacity (%). This measure compares ridership with capacity on a daily and peak hour basis. The intent was to indicate how well transit was performing relative to ridership increases over time. However, the usefulness of this measure has proven questionable, since some of the routes and schedules have changed and data availability is limited. In addition, the 2009 CSMP did not include bicycle performance measures, though, committed to working with stakeholders to establish them. In an effort to establish additional performance measures for transit and bikes, we will continue to work with our local and regional partners to develop useful performance measures for alternative transportation modes.

Highway 99 Proposition 1B Cost Savings: A consensus building process is currently underway to select and prioritize projects to be funded from the cost savings of the Highway 99 Proposition 1B Bond Program. The Bond Program distributed funds based on 15 percent to the north for the Sacramento Valley and counties north of Sacramento/San Joaquin County line and 85 percent to the south for the San Joaquin Valley. Project savings will remain within the geographic boundaries where the savings were attained. Participating in the discussions are the cities of Sacramento, Marysville, Yuba City, Chico, Live Oak and Gridley, and the counties of Sacramento, Yuba, Sutter, and Butte, the Sacramento Area Council of Governments, the Butte County Association of Governments and Caltrans Districts 2 and 3.

Operational Improvement Projects: The SR 99 North CSMP recognized that opportunities will be available for low-cost operational improvement and ITS management strategies on the SHS in the Chico area, such as auxiliary lanes, changeable message signs, additional detection and ramp metering. As such, the need to identify and program these projects will continue.

Intelligent Transportation Systems: Intelligent Transportation Systems (ITS) are a key system management component. ITS provides an opportunity to improve mobility through the corridor by using lower cost strategies to improve overall efficiency without adding capacity. An array of technologies can be used to detect and manage transportation activities within a corridor, such as Closed Circuit Television System (CCTV), Changeable Message Signs (CMS), Extinguishable Message Signs (EMS), Electronic Tag Reader (ETR), Highway Advisory Radio (HAR), Ramp Meters (RMS), Roadside Weather Information System (RWIS), and Traffic Monitoring Stations (TMS). The use of the ITS tools improves system efficiency by collecting and disseminating traffic information to the travelling public thereby reducing delay and improving safety within the corridor.

Vehicle detection and monitoring methods are typically spaced every ½ miles in the urbanized areas of District 3. In rural environments, the ½ mile spacing is not practical or necessary. Congested areas are typically smaller and sporadic and are not likely to be detected properly. A better approach on rural routes, such as SR 99 North, is to monitor the actual travel times of vehicles through the corridor.

The following ITS elements were proposed for inclusion in the 10 Year State Highway Operations and Protection Program (SHOPP). However, it is unlikely that the majority of these projects will be programmed through the SHOPP given limited resources and other higher priority basic maintenance needs. As such, Caltrans will seek funding through all available means, including regional discretionary funding programs:

Element	County/PM	Location
CMS	But/31.70	SR99/SR32 Interchange
RMS	But/30.69	NB Skyway (EB)
RMS	But/30.82	NB Skyway (WB)
RMS	But/31.68	NB East 20 th Street

RMS	But/32.26	SB SR 32
RMS	But/32.54	NB SR 32
RMS	But/33.17	SB East First Ave
RMS	But/34.27	SB Cohasset Road
RMS	But/34.79	SB East Ave

Micro-simulation Modeling: The future need and strategy to develop traffic models for this corridor will have to be developed in consultation with the City of Chico and BCAG when resources are available and the need is agreed upon by all parties.