Caltrans District 3 Corridor System Management Plan (CSMP)

Bicycle and Transit Performance Measures
Summary of Outreach Process

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Executive Summary

Project Overview

Caltrans is working with stakeholders to develop transit and bicycle performance measures for its Corridor System Management Plans (CSMP) . ACSMP is a foundational document that supports planning for integrated management of all travel modes (transit, cars, trucks, bicycles) and infrastructure (rail tracks, roads, highways, information systems, bike routes) in a corridor so that mobility along the corridor is provided in the most efficient and effective manner possible. The intent of Corridor System Management Plan (CSMP) development is to provide one unified concept for managing, operating, and preserving a corridor for all travel modes and across all jurisdictions resulting in the integration of capital improvements, traffic management, and transit management strategies. State of the Corridor (SOTC) Reports are used to monitor annual corridor performance and the ongoing implementation of CSMP strategies.

The desired project outcome was to develop transit and bicycle measures to augment the existing vehicle measures already included in the first generation CSMPS. The blend of measures was to be used by all transportation system operators to identify and implement mobility enhancing strategies for the integrated management of the CSMP corridor networks.

Outreach Process

Caltrans conducted a 4-month outreach process to engage stakeholders in the development of the performance measures. Outreach activities targeted transit and bicycle stakeholders and included group interviews, working group sessions, and a discussion of best practices. Potential stakeholders and partner agencies were identified during the project initiation meeting.

Best Practices

The first step in performance measurement development is a review of Caltrans, external agencies, and organizations' practices. A review of regional, state, and national transit and bicycle performance measures and best practices was undertaken. One finding of the review was that while many agencies had developed performance measures, none were seeking to apply them along specific corridors. Most were applicable to jurisdictional boundaries.

Lessons Learned and Key Findings

Group interview and workshop participants identified several challenges to developing transit and bicycle performance measurements and to measuring mobility along CSMP corridors including: needing performance measures, measuring mobility, fostering partnerships and funding opportunities, defining corridor parameters, lacking data sources, meeting transit needs effectively, and managing expectations. The variety of data sources and the number of variables as it relates to corridor boundaries, path of travel and other factors made these discussions, at times, very frustrating to some participants.

Participants in group interviews and workshops identified potential performance measures and data sources for transit and bicycles along CSMP corridors. Potential measures included: ridership, access to transit, transit travel time, transit resources, Park-n-Ride lot capacity, existing CSMP performance measures, existing transit agency performance measurements, safety for bicycles, connectivity and bicycle system completion, and bicycle facility specifications.

Opportunities

After synthesizing the transit and bicycle interview and workshop results, Caltrans developed a proposed draft bicycle performance measure and communicated this information to the bicycle workshop participants for their review. Caltrans will continue to collaborate with transit operators to develop and implement a transit performance measure.

Draft Bicycle Performance Measure

While a variety of potential measures were discussed, Caltrans wanted to respond to bicycle stakeholder concerns about developing measures with data that was relatively available and likely to be of value to them. As a result, Caltrans suggested the following measure:

The proposed bicycle performance measure assesses baseline data comprised of bicycle route completion in the corridor and provides an annual reporting of gap closures for those bicycle routes.

Transit Performance Measure

Caltrans recognizes the challenges related to corridor-wide transit performance measures voiced by interview and workshop participants.

Several transit performance measures were considered by Caltrans including the use of a transit system service gap analysis.

Caltrans acknowledges that system management is in its preliminary stages and that more time is needed for collaboration with transit operators to develop and implement quality transit performance measures.

Next Steps

Caltrans will revise and finalize the proposed bicycle performance measure based on the input received. Caltrans will continue to work with stakeholders and participants on the development and implementation of transit performance measures in the corridor management planning process.

I. Project Overview

Caltrans is working with stakeholders to develop transit and bicycle performance measures. A Corridor System Management Plan (CSMP) is a foundational document that supports planning for the integrated management of all travel modes (transit, cars, trucks, bicycles) and infrastructure (rail tracks, roads, highways, information systems, bike routes) in a corridor so that mobility along the corridor is provided in the most efficient and effective manner possible. The intent of Corridor System Management Plan (CSMP) development is to provide one unified concept for managing, operating, and preserving a corridor for all travel modes and across all jurisdictions resulting in the integration of capital improvements, traffic management, and transit management strategies. State of the Corridor (SOTC) Reports are used to monitor annual corridor performance and the ongoing implementation of CSMP strategies.

Performance measures are an integral part of corridor management and investment decision making and help identify efficient and effective system operational strategies and capital improvements. The 2009 CSMP and 2010 SoTC include state highway system (SHS) performance measures that are based on vehicle related data that is readily accessible to Caltrans. This is not the case for other modes such as transit and bicycle. This project represents a new effort by Caltrans to develop performance measures for transit and bicycle in corridor planning.

Purpose

The desired project outcome was to develop transit and bicycle measures to augment the existing vehicle measures already included in the first generation CSMPS. The blend of measures was to be used by all transportation system operators to identify and implement mobility enhancing strategies for the integrated management of the CSMP corridor networks.

Transit and bicycle performance measures will be used by Caltrans to:

- Identify transit and bicycle projects and strategies.
- Coordinate multi-modal capital investments, so that all pieces of the corridor function as an efficient system.
- Develop a complete listing of multi-modal projects and strategies.
- Inform and add value to the regional planning processes.

- Facilitate transit collaboration and funding opportunities between Caltrans and agencies.
- Address challenges to and gaps in accessibility, mobility and connectivity.
- Document Caltrans' transit and bicycle projects and actions.
- Reinforce Caltrans' value of all transportation modes and establish a strong policy statement.
- Provide a prototype for use by other Districts and establish best practices for the State.
- Provide an opportunity to establish transit and bicycle baseline data or metrics.

II. Outreach Process

Caltrans conducted a 4-month outreach process to engage stakeholders in the development of the performance measures. Outreach activities targeted transit and bicycle stakeholders and included group interviews, working group sessions, and a discussion of best practices. Potential stakeholders and partner agencies were identified during the project initiation meeting. They were asked to participate in group interviews and work sessions to provide input on the performance measures.

A summary of best practices is provided in Chapter III and key findings and lessons learned from these outreach activities are provided in Chapter IV of this report. Group interview and workshop summaries are available in Appendix B.

Group Interviews

Group interviews were conducted with Regional Transportation Planning Agencies (RTPAs), the SACOG Transit Coordinating Committee (TCC), and the Sacramento Pedestrian and Bicycle Advisory Committee (BPAC). These interviews are briefly described below.

Regional Transportation Planning Agencies (RTPAs)

Caltrans hosted a focused briefing meeting with RTPAs on October 25, 2010. The purpose of the meeting was to share information about the project, solicit feedback from the MPO/RTPA participants, and identify contacts for upcoming survey and workshops. The meeting included members of the project team and Jerry Barton with the El Dorado County Transportation Commission, and Dan Landon with the Nevada County Transportation Commission.

SACOG Transit Coordinating Committee (TCC)

The TCC invited the project team to participate in their November 10, 2010 meeting. The TCC provides a forum for transit plan and issue discussion, study and system coordination, and plan review and feedback. This topic was one of approximately ten meeting agenda items and about 15 minutes was devoted to the topic. Participants had the opportunity to learn about the project purpose, ask questions, and provide suggestions.

SACOG Pedestrian and Bicycle Advisory Committee (BPAC)

SACOG's BPAC invited the project team to discuss how Caltrans could develop bicycle performance measures during their meeting on October 19, 2010. BPAC members had learned about the project, asked questions and provided suggestions regarding bicycle performance measurements along CSMP corridors.

Working Group Sessions

Caltrans hosted two working group sessions in December 2010, one each with bicycle and transit stakeholders to solicit input. Participants were identified by project team members and through the group interviews. Invitations were sent by e-mail and mail, and follow-up calls were made to invitees.

Bicycle Performance Measure Workshop

The District 3 Corridor System Management Plan (CSMP) Bicycle Performance Measurements Workshop convened on December 13, 2010. The purpose of the workshop was to identify one to two bicycle performance measures and potential data and reporting needs for these performance measures. A number of stakeholders attended the workshop representing: Sacramento and Yolo County Air Quality Management Districts (AQMD), University of California Davis, Sacramento Area Bicycle Advocates, Yuba County Trails, El Dorado and Placer County Transportation, and the cities of Davis, Sacramento, Folsom, Rancho Cordova, and West Sacramento.

Following a brief presentation, participants engaged in a discussion regarding bicycle performance measures. A number of questions related to CSMPs, bicycle performance measures, and available data sources surfaced throughout the workshop. Feedback from participants indicated more detailed information about corridor planning and maps of the corridor would have aided the discussion. After the workshop, Caltrans shared draft performance measures and invited participants to review the workshop summary report and provide feedback.

Transit Performance Measure Workshop

On December 17, 2010, Caltrans hosted Transit Performance Measurements Workshop. The purpose of the workshop was to identify one to two transit performance measures and potential data and reporting needs for these performance measures. Participants included: Jim Brown with SACOG, Rosemary Covington with Sacramento Regional Transit, Scott Ousley with El Dorado County

Transit Authority, Lindell Price an El Dorado County multi-modal advocate.

After a brief presentation, a discussion opened with a variety of questions and comments. Participants requested clarification regarding the meeting's purpose and outcomes. Workshop participants suggested several potential performance measures and other methods to evaluate transit along CSMP corridors, develop partnerships, and identify funding opportunities. Participants also identified transit agency needs to support Caltrans' development and assessment of transit performance measures.

III. Best Practices

The first step in performance measurement development is a review of Caltrans, external agencies, and organizations' practices. A review of regional, state, and national transit and bicycle performance measures and best practices was undertaken. One finding of the review was that while many agencies had developed performance measures, none were seeking to apply them along specific corridors. Most were applicable to jurisdictional boundaries. The following is a brief description of example performance measures and related processes relevant to this project.

Appendix C includes the complete Best Practices Summary.

Key Findings – Transit Performance Measures

A number of transit agencies regionally, state- and nationwide measure transit performance. A summary of these transit performance measures are described below.

Sacramento Region

The Sacramento Regional Transit District, El Dorado County Transit Authority, Nevada County Transportation Commission, Butte County Association of Governments, Placer County Transportation Planning Agency, San Joaquin Regional Transit District and COG, City of Folsom, and City of Elk Grove evaluate transit using performance measures including:

- Ridership average and growth,
- Transit service availability in high transit need zones,
- Access to jobs, markets and commerce,
- Frequency and reliability of transit service,
- Transit-related accidents,
- Roadway congestion,
- Air quality,
- Number of multi-modal travel opportunities,
- Park-n-Ride lot utilization,
- Compliance with transportation facility standards,
- Percentage cost recovery through fare box receipts, and
- Annual operating cost per revenue vehicle hour.

Tools and datasets used by these agencies to quantify information include: Highway Performance Monitoring System (HPMS) data, transit operator financial audits, Triennial Performance Audit to evaluate the effectiveness, efficiency, and economy of transit operations.

California

The Capitol Corridor Joint Powers Authority, the California Department of Mass Transit, Caltrans' 2006 Performance Measures for Rural Transportation Systems Guidebook, MTC Transportation 2035 Performance Objectives, Alameda County Congestion Management Agency, and San Luis Obispo Regional Transit Authority, among other transit agencies in the state, evaluate performance based on the following:

- Total, off peak/peak and route ridership,
- Customer satisfaction,
- Transit travel demand,
- Physical infrastructure,
- Financial health, operating cost, and fare revenue,
- Distance between road-call/mechanical breakdown,
- Percent of system ridership or mode share,
- Safety (such as fatal and injury collisions),
- Accessibility and unlinked passenger trips,
- Transit routing,
- Passenger load,
- Reliability and frequency, and,
- Air quality.

Nationwide

A number of agencies and organizations nationwide use performance measures to improve transit system performance. The Capital District Transportation Committee (CDTC) in Albany New York, the Florida Department of Transportation, and the New York City Transit Authority, among others, use the following performance measures:

- Access of peak trips by bicycle and walking,
- Access of transit between representative locations,
- Flexibility on the urban expressway and arterial system,
- Safety and accident rates,
- Cost effectiveness,
- Ridership and passenger load,

- On-time performance and missed trips,
- Road (service) calls,
- Employee productivity,
- Complaint/compliment ratio, and
- Auto/transit travel time ratio.

When developing transit performance measures, these agencies build on national research, ensure measures are policy-driven and supported by data, reflect the users' experience in the system, address multimodal considerations, provide understandable results to the General Public, and forecast results into the future.

Key Findings – Bicycle Performance Measures

A number of statewide manuals include bicycle standards and agencies state- and nationwide measure bicycle performance. The following is a summary of bicycle performance measure examples applicable to this project.

Manuals and Guides

There are several statewide guides and manuals that set standards for bicycle facilities including: the Pedestrian and Bicycle Facilities in California Report, Chapter 1000 Bikeway Planning and Design of the Highway Design Manual, and the American Association of State Highway and Transportation Officials developed the Guide for Development of Bicycle Facilities. While these documents do not include performance measures, they identify how to determine the completeness and quality of bicycle facilities.

California

Alameda County's Congestion Management Agency (ACCMA) outlined performance measures with their corresponding long-range plan including:

- Completion of the Countywide Bicycle Plan, and
- Roadway accidents.

Tools and datasets used by ACCMA include: Switter/TASIS System and the existing Bicycle Plan.

Nationwide

The City of Seattle, the Vermont Agency of Transportation, and other agencies nationwide monitor bicycle performance measures including:

- Number of cyclists observed at counting locations,
- Number of police reported bicycle crashes per total number of bicycles,
- Percentage of Bicycle Facility Network or miles of facilities completed,
- Number of bicycle spot improvements completed,
- Miles of roadway with paved shoulders, and
- Percentage of all trips that are made by bicycle modes.

IV. Lessons Learned and Key Findings

Challenges

Group interview and workshop participants identified several challenges to developing transit and bicycle performance measurements and to measuring mobility along CSMP corridors including: needing performance measures, measuring mobility, fostering partnerships and funding opportunities, defining corridor parameters, lacking data sources, meeting transit needs effectively, and managing expectations. The variety of data sources and the number of variables as it relates to corridor boundaries, path of travel and other factors made these discussions, at times, very frustrating to some participants. The challenges are discussed as follows:

Need for Performance Measures

Transit and bicycle workshop participants expressed skepticism about the need for these measures and how their data could be adapted to respond specifically to corridor mobility determinations. The request for clarity and a more specific response to the purpose and usage of the measures was expressed frequently throughout the meetings. They also were concerned that there might be unintended consequences related to how the measures might be used in the future, especially as it relates to project funding.

Caltrans representatives reiterated that the measures were intended to help determine if mobility was improving on the corridor and could be used to inform future planning and funding decisions. They may be a catalyst for future project and funding partnerships.

Measuring Mobility

Participants noted the challenge of measuring mobility along CSMP corridors. Several participants requested clarification regarding Caltrans data needs and ultimate goal for CSMPs. Caltrans is interested in measuring the mobility of people through the corridor regardless of travel mode.

Participants discussed the relevancy of bicyclists to mobility. Some stakeholders expressed concern that mobility is not a factor that relates to bicycles along CSMP corridors; an increase in bicycle travel would not reduce congestion. Other participants disagreed about whether or not bicycle safety is a corridor management issue. Some stakeholders argued that the number of bicycle trips relates to safety

concerns. One participant argued that if corridors are safer for bicyclists, it is possible that bicycle mobility would improve.

Since bicyclists often have many options in terms of their path of travel, some participants questioned how mobility improvements could be measured.

Partnerships and Funding Opportunities

Caltrans and participants did not agree on an effective method to develop partnerships and funding opportunities. One transit workshop participant suggested that transit performance measures may not be the most effective way to develop partnerships and identify funding opportunities. Some participants also expressed concern that the results of the performance measurements may inadvertently work against them sometime in the future; making them less competitive for funding.

Caltrans expressed interest in partnering with all system owner/operators to coordinate all transportation modes and service deliveries. Caltrans believes that partnering will ensure the increased mobility in the corridors for: the State Highway System, parallel roadways, bicycles, and public transit. Caltrans hopes that by working together to monitor the corridors, system operators will identify projects that can be jointly funded and have the ability to improve the mobility of people and/or goods.

Defining a Corridor

Participants had numerous questions about CSMPs and were seeking to understand how the corridors were defined. Transit agency representatives expressed a need for parameters to identify the appropriate data, to assess transit mobility, and to determine ridership along the corridor.

Bicycle stakeholders had difficulty understanding how bicycle travel should be considered in the context of the corridor, especially where bicycles might not be allowed on sections of the roadway. They also noted that bicyclists travel a wide variety of routes and their route choices are usually influenced by safety and access. Bicyclists will regularly select the more bicycle-friendly route – even when it is longer. One participant suggested Caltrans revise the corridor definition to recognize cross transportation networks that share the same corridor although have different transportation needs.

Caltrans identified the corridor limits to include a combination of distinct parallel and/or adjacent surface transportation networks (e.g., freeway, arterial, transit, and rail networks) that serve a particular travel market or markets and that are affected by similar transportation needs and mobility issues. Caltrans worked with local agency staff to identify these transportation networks.

Caltrans recognizes that CSMP boundaries may need to be refined and adjusted. Caltrans believes it is important that bus, car, and truck system owners and operators agree upon corridor boundaries and key goods and service areas.

Lack of Data

Participants noted that it is a challenge to provide data to Caltrans for the purpose of the bicycle and transit performance measurements. It will take resources (time and money that agencies do not have) to report data in a standard format across agencies. Participants emphasized the importance of reducing new data needs and resources and developing performance measures that use existing bicycle and transit data.

Transit agencies currently report data in a format that includes multiple corridors and is not limited to one stretch of road as it would be if data was provided to Caltrans for the purpose of transit performance measures. Transit agencies count ridership, but it is difficult to determine which and how many riders traveled specifically on the corridor. The agencies would need to make some assumptions of what percentage of riders traveled the corridor.

Multivariate testing (MVTs) on all transit vehicles would make data gathering and transmission to Caltrans easier for transit agencies. Currently, most transit agencies in the region need MVTs on transit vehicles. Transit agencies expressed a need for Caltrans data collected on roadside characteristics, so that they can provide the appropriate and parallel data to assess transit performance measures.

Similarly, bicycle data relevant to CSMP corridors does not currently exist and will need to be collected. Participants suggested that Caltrans start gathering bicycle performance measure data now for the future. Participants identified bicycle data required including:

- Trip purpose and type of trip,
- Number of people at key destinations,

- Bicycle system's baseline mileage,
- Data to determine route and bicycle use interface,
- Corridor road grade to determine bicycle momentum,
- Number of cyclists, and
- Cyclist trip routes.

Identified Transit Needs

Participants suggested the Metropolitan Transportation Plan 2035 and other regional policy documents include transit project needs. These documents may identify transit project funding opportunities along CSMP corridors. Participants suggested that Caltrans could avoid identifying additional transit project needs by working from these policy documents.

Expectations

Participants emphasized that performance measures should not give a false perception that congestion along CSMP corridors will be reduced with improved bicycle and transit transportation amenities.

Potential Performance Measurements

Participants in group interviews and workshops identified potential performance measures and data sources for transit and bicycles along CSMP corridors.

Transit – Potential Performance Measures

Ridership

Participants identified the number of passengers on transit routes as a potential performance measure. Participants suggested measuring vehicle hours of service provided in the corridor and the passenger trips per hour over time.

Potential ridership data sources and tools include:

- Sacramento Regional Transit (ridership data including disembark/embark times),
- El Dorado County Transit (ridership data including number of passengers, fare box recovery, and passenger hours),
- Network Diagnostic Tool (NDT) data,
- CSMPs (ridership data related to vehicle-miles traveled),
- Caltrans Highway Performance (annual VMT data), and
- Most transit agencies (miles, hours, and basic ridership data).

Since the exact data to evaluate ridership does not exist, transit workshop participants suggested developing a formula that is uniform for all transit agencies and corridors to estimate, as accurately as possible, the data in each CSMP corridor. Caltrans could develop a draft formula that transit agencies would review. SACOG offered a potential modeling tool to help develop the formula.

Access to Transit

Participants in all transit-related discussions identified transit stop access for transit riders as an important measure of transit success. Determining access could include identifying barriers and proximity to activity centers, among other measurement tools. Access to transit could also include comparing travel duration for automobiles to transit.

Potential transit access data sources include El Dorado County Transit Authority.

Transit Travel Time

Some participants identified transit travel time as a potential performance measurement. Comparing the average travel time of a private automobile and transit and assessing person minutes of delay (rather than vehicle miles of delay) are potential measurement methods.

Transit Resources

A few participants suggested determining the resources it would take for transit in the region to get specific percentage of market share of a specific corridor.

Park-n-Ride Lot Capacity

Transit workshop participants suggested determining if transit agencies have the capacity to meet the need for transit by assessing the Park-n-Ride capacities during peak hours.

Potential Park-n-Ride data sources include Caltrans' parking lot data.

Existing CSMP Performance Measurements

Participants suggested developing a parallel performance measure system for vehicles and transit in the CSMPs. Participants noted that there is transit data available to support this.

Existing Transit Agency Performance Measurements

TCC meeting participants suggested using performance measures that transit operators already provide for Transportation Development Act reporting.

Bicycle – Potential Performance Measures

Safety for Bicycles

Participants in all bicycle-related outreach activities identified safety for bicyclists as an important performance measure. It is possible that people are not bicycling because it is perceived as unsafe. Potential performance measurement suggestions included: speed differential between bicycle and automobile traffic by facility type and severity of accidents within a certain time period.

Potential data sources may not be comprehensive and include:

- Bicycle travel speed average (5-15 MPH) and posted vehicle speed limits,
- American Community Survey,
- Sacramento County,
- Local transportation management agencies and mechanical counters, and
- Switter (injury, fatality and crash statistics).

Connectivity and Bicycle System Completion

Bicycle stakeholders noted the importance of connectivity and system completion for bicycles. Potential performance measures identified include: bicycle access to and across the corridor, number of out-of-direction bicycle miles, bicycle travel duration by time or distance, corridor crossing distances, trip duration, bicycle access to transit, number of difficult transitions, number of bicycle signalization amenities.

RTPA participants noted the importance of appropriate intersection locations and traffic light timing to facilitate the flow of car traffic and bicycles, thereby improving mobility. BPAC participants highlighted highway crossings as barriers to access. Participants suggested maintaining a design standard freeway crossing distance for freeways, such as crossings at mile intervals. If there was a design standard, then there could be a higher level and more simple measure of effectiveness for out of distance travel for bicycles.

Participants noted a lack of existing data. Connectivity and system completion data sources identified include:

- Sacramento Area Bicycle Association (bicycle counts),
- SACOG May Bicycle Month (trip purpose and trip type),
- Bicycle route maps,
- El Dorado County Transportation Commission's Draft Bicycle Transportation Plan (amount of roadways with facilities), and
- Regional Bicycle, Pedestrian and Trails Master Plan.

Bicycle Facility Specifications

Measuring continuity between road sections for bicycles is important to many participants. Potential performance measures identified include: bicycle path continuity, number of Class II bicycle lanes, ratio of crossings on bicycle facilities, quality of crossings, number of barriers, quality of stress pavement, and ratio of rumble strips.

Potential data sources to measure facility specifications identified include:

- El Dorado County Transportation Commission's Draft Bicycle Transportation Plan (amount of roadways with facilities),
- Federal Highway Administration Bicycle Level of Service recommendations, and
- Caltrans Traffic Operations' guide for bicycle and pedestrian facilities.

V. Opportunities and Next Steps

Proposed Performance Measure

After synthesizing the transit and bicycle interview and workshop results, Caltrans developed a proposed draft bicycle performance measure and communicated this information to the bicycle workshop participants for their review. Caltrans will continue to collaborate with transit operators to develop and implement a transit performance measure.

Draft Bicycle Performance Measure

While a variety of potential measures were discussed, Caltrans wanted to respond to bicycle stakeholder concerns about developing measures with data that was relatively available and likely to be of value to them. As a result, Caltrans suggested the following measure:

The proposed bicycle performance measure assesses baseline data comprised of bicycle route completion in the corridor and provides an annual reporting of gap closures for those bicycle routes.

Participant Input

Bicycle workshop participants were given the opportunity to consider and review the proposed performance measure. Participants generally agreed with the proposed measure and suggested that one measure alone may be inadequate provided limited information on the existing conditions that exist that support overall efficient, safe and convenient bicycle transportation within and through a corridor.

Participants suggested bicycle performance measures including the type of bicycle routes, average motor vehicle speeds of the routes, bicycle/motor vehicle accident numbers and severity data (Safety Index). Additionally, reporting should include both parallel and cross-corridor routes, according to bicycle workshop participants.

Bicycle workshop participants noted that vehicular performance measures have the potential to be inconsistent with and create a negative impact on improving conditions for bicycle transportation and for non-motorized access to transit within the corridor.

Transit Performance Measure

Caltrans recognizes the challenges related to corridor-wide transit performance measures voiced by interview and workshop participants.

Several transit performance measures were considered by Caltrans including the use of a transit system service gap analysis.

Caltrans acknowledges that system management is in its preliminary stages and that more time is needed for collaboration with transit operators to develop and implement quality transit performance measures.

Next Steps

Caltrans will revise and finalize the proposed bicycle performance measure based on the input received. Caltrans will continue to work with stakeholders and participants on the development and implementation of transit performance measures in the corridor management planning process.