

State Route 49 Comprehensive Multimodal Corridor Plan



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STATE ROUTE 49 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

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CALTRANS DISTRICT 3
PLANNING, LOCAL ASSISTANCE & SUSTAINABILITY

**STATE ROUTE 49
COMPREHENSIVE MULTIMODAL
CORRIDOR PLAN**



Acknowledgments

A Technical Advisory Committee (TAC) and Stakeholder group comprised of key partner agencies and organizations was formed and provided essential information, advice, and feedback for the preparation of this CMCP. The partners included:

- Caltrans District 3
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- Nevada County Transportation Commission
- Placer County Transportation Planning Agency
- Sacramento Area Council of Governments
- Nevada County
- Placer County
- Auburn Transit
- Nevada County Connects Transit
- Placer County Transit
- City of Auburn
- City of Grass Valley
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- California State Parks
- United Auburn Indian Community
- Shingle Springs Band of Miwok Indians
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- Matthew Cadrett, District 3 Planning
- Shannon Roberts, District 3 Planning

A website, www.Hwy49CorridorPlan.com, was created to support the development of the CMCP and to provide stakeholders and the public with information regarding the CMCP development and opportunities to provide input and review documents at various points during the process.

Disclaimer

The information, opinions, commitments, policies, and strategies detailed in this document are those of Caltrans District 3 and do not necessarily represent the information, opinions, commitments, policies, and strategies of partner agencies or other organizations identified in this document.



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Executive Summary

Vision Statement

Provide a safe, efficient, accessible, and connected transportation system that emphasizes public transit, walking, and biking to enhance options to reduce our overall dependence on the automobile. This will be achieved through collaboration, creativity, and sustainability with our partners.

Executive Summary

The State Route 49 (SR 49) Comprehensive Multimodal Corridor Plan (CMCP) will benefit local, regional, and state agencies as they deal with the infrastructure, livability, economic, and sustainability needs of the transportation system.

This system planning document is part of the long-range transportation planning process for the California Department of Transportation (Caltrans). The system planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by identifying future improvements to the SHS. Through system planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of Safety and Health; Stewardship and Efficiency; Sustainability, Livability and Economy; System Performance; and Organizational Excellence.

The main purpose of the SR 49 CMCP is to create an effective and efficient decision-making process focusing on developing solutions that increases accessibility and mobility, improves safety, and enhances the quality of life and environment within the study corridor for Nevada and Placer counties. This process will determine what specific improvements to the existing transportation network are necessary to achieve the desired outcomes of corridor users, stakeholders, and the public agencies that utilize corridor facilities. The CMCP provides the framework for agencies along the corridor to strategize future improvements and position partners to be more competitive and eligible for state, regional, and federal funding programs such as the Senate Bill 1 (SB 1) Solutions for Congested Corridors Program (SCCP) which requires a CMCP.

The SR 49 CMCP employs the eight steps of the corridor planning process, per the Caltrans Corridor Planning Guidebook:

1. Development of Scope
2. Gather information
3. Conduct baseline performance assessment
4. Identify potential projects and strategies
5. Analyze improvement strategies
6. Select and prioritize solutions
7. Publish/implement corridor plan
8. Monitor and evaluate progress



The SR 49 CMCP is built on a variety of guidance documents, stakeholder input, and regional and State plans and policies. The CMCP exemplifies the five Caltrans priorities from Moving Forward to Transportation:

1. Safety
2. Modality
3. Innovation
4. Efficiency
5. Partnerships

These key priorities are the focus of the SR 49 CMCP, consistent with Climate Action Plan for Transportation Infrastructure (CAPTI) and its project recommendations. The purpose of the system planning process is to identify the existing and future route conditions as well as future needs for the SR 49 corridor. This CMCP is a complex, multi-jurisdictional planning document that identifies future needs within the corridor that are currently experiencing high levels of congestion. It also is a foundation document based on partnership collaboration that supports integrated management of various travel modes (transit, cars, trucks, bicycles) and infrastructure (rail, roads, highways, information systems, bike routes) on a corridor to ensure efficient and effective movement of people and goods.

Plan Study Area

The SR 49 CMCP covers approximately 25 miles of the SR 49 corridor — beginning in Placer County at the I-80 junction in the City of Auburn and ending in Nevada County at the SR 20 junction in the City of Grass Valley.

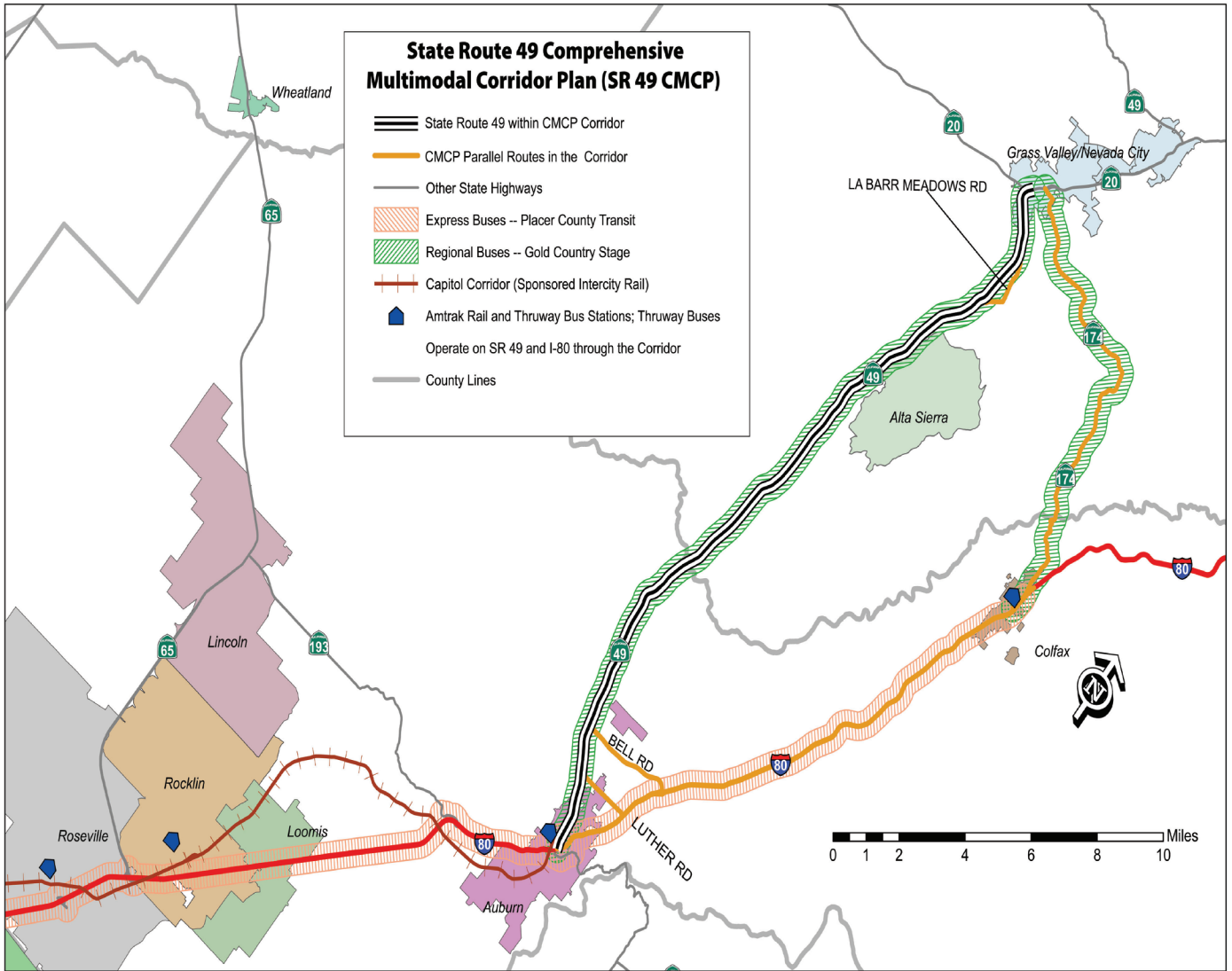
Due to the statewide and regional significance of the corridor, between the Mother Lode and outlining areas, such as the Sierra Nevada mountains, Caltrans District 3 has embarked on this CMCP effort for the SR 49 corridor to better understand the issues on the corridor and to plan appropriately for all modes of transportation and facility types, some of which include passenger rail lines, freight rail lines, transit, local parallel arterial roadways, and bicycle, and pedestrian facilities.

State and Local Responsibility

Improvements to the SHS is the responsibility of Caltrans; however, Caltrans continues to look at opportunities to leverage funding sources and collaborate on projects with local agencies that is beneficial to all agencies and users of the roadway. Local developments that add cumulative impacts to this corridor, or the regional and local transportation network, may necessitate local jurisdictions provide nexus based, proportional fair-share funding for future transportation improvements and mitigations.



Corridor Map





Chapter One: Introduction

CMCP Purpose and Need

California's SHS needs long range planning documents to guide the logical development of transportation systems, as required by CA Gov. Code §65086, and as necessitated by the public, stakeholders, and system users. The purpose of the CMCP is to evaluate current and projected conditions along the corridor and communicate the vision for the development of the corridor.

The CMCP is developed with the goals of safety and health; stewardship and efficiency, sustainability, livability and economy, system performance, organizational excellence, community needs, and environmental needs along the corridor. This was accomplished through management of the transportation network including highway, transit, pedestrian, bicycle, freight, operational improvements, and travel demand management components of the corridor.

Consistency between the SCCP and CMCP

The main purpose of the SR 49 CMCP for Nevada and Placer counties is to create an effective and efficient decision-making process, focusing on developing solutions that increases accessibility and mobility, improves safety, and enhances the quality of life and environment within the study corridor. This process will determine what specific improvements to the existing transportation network are necessary to achieve the desired outcomes of corridor users, stakeholders, and public agencies that own and operate corridor facilities. The completion of the CMCP provides the framework for agencies along the corridor to strategize future improvements and position partners to be more competitive and eligible for state, regional, and federal funding applications such as the SB 1 SCCP which requires a CMCP.

Corridor Overview/Route Significance

The SR 49 CMCP Corridor begins in Placer County at the Interstate 80 (I-80) junction in the City of Auburn and ends at the SR 20 junction at the City of Grass Valley, within Nevada County.

SR 49 is a north south route that provides lifeline accessibility for interregional movement of people, goods, agriculture, and recreation in rural parts of the region. Traffic on SR 49 is a mixture of goods movement and local/visitor vehicles traveling to residential sites, commercial establishments, and recreational facilities. Traffic volumes on SR 49 vary considerably from the urban city of Auburn to the smaller, rural areas along the corridor.

SR 49 within the study area is a rural corridor that travels through agricultural land and several small communities. The cities of Auburn, Grass Valley, and Nevada City are the most urbanized centers along the route. SR 49 within the study area varies between a main street and a highway which includes different access points from at grade intersection to interchanges. Overall, the route attracts a high volume of commuters and local traffic from Nevada County and outside visitors to the county as the route is commonly used for recreational travel by tourists and residents year round. The existing demand of the corridor, along with the narrowness of the corridor, contributes to congestion on the corridor which affects local communities and businesses.

Placer County

Placer County is a destination for visitors from around the world, but for its local residents it's a place to live and work. From the suburbs of Roseville, Lincoln, and Rocklin, to the foothills of Auburn, this historic Gold County provides the opportunity to enjoy a variety of lifestyles for residents and tourists. There is over 1,500 square miles of land in the county with a population of over 400,000 residents.



Auburn

Located at the crossroads of I-80 and historic SR 49, Auburn is the county seat of Placer County. Auburn is geographically located northeast of Sacramento and southwest of Lake Tahoe. The city is located on the western slope of the Sierra Nevada Mountain range at elevations between 1,000 and 1,400 feet. To the south, the American River Canyon provides a sharp boundary to urban growth and an opportunity for regional open space. The city encompasses approximately 7 square miles and has a population of 14,195 residents.

Nevada County

Nestled into the western slope of the Sierra Nevada Mountains, Nevada County is known as the heart of the “Gold Country” and is comprised of three incorporated cities: Nevada City (the County Seat), Grass Valley, and Truckee, all of which played important roles in California’s Gold Rush. Nevada County’s underground mines created an abundance of gold-streaked rivers and streams that made the area a prominent mining community in California.

There are approximately 100,000 residents in the county spread over the 974 square miles. Of those, 67% of the residents live in unincorporated areas. The county is supported by an economy that includes manufacturing, retail, technology, agriculture, and tourism.

Grass Valley

SR 49 traverses northwest through the City of Grass Valley after it intersects with SR 20 at the southern portion of the city’s boundaries. Grass Valley is roughly 2,500 feet in elevation in the western foothills of the Sierra Nevada Mountain range. Despite a relatively small resident population of approximately 12,817 and land area that encompasses roughly 4 square miles, Grass Valley is a regional economic and cultural center. Planning for Grass Valley means planning to accommodate the needs of people who use the city but are not necessarily city residents. Substantial land area is presently devoted to commercial, industrial, and other business uses.

Nevada City

SR 49 traverses through Nevada City until it meets with SR 20 at the northern end of the city. Nevada City is located at 2,800-feet in elevation in the western foothills of the Sierra Nevada mountain range. Nevada City, for a community with a population of 3,134 and encompassing only 2 square miles, has a remarkably diverse social make-up and rich cultural life. People of varied social backgrounds live together in truly mixed neighborhoods- both in housing sizes and income levels- in a city that is still small enough to maintain pedestrian scale.

Commute Patterns and Trip Generators

Data in Table 1.1 was sourced from Replica, a website specializing in travel data information. Data for automobile is a combination of driving, commercial vehicle, and taxi data. Replica’s data is provided in monthly estimates and so it is important to recognize that these are not exact numbers. The data in the Table 1.1 reflects the period of June 2019 – August 2019.

Table 1.1 Monthly Commute By Mode Trips (June-August 2019)

Commute Mode	Nevada County	Placer County
<i>Automobile</i>	320,000	205,700
<i>Transit</i>	440	800
<i>Walk</i>	5,800	210,000
<i>Bicycle</i>	1,800	8,800
<i>N/A</i>	2,000	14,000



Congestion along SR 49 in Nevada County

Chapter Two: Goals, Objectives and Performance Metrics

Multimodal Corridor Planning Guidance

The CMCP is developed based on the CMCP guidelines from the CTC and the Caltrans Corridor Planning Guidebook. These corridor planning guides provide the framework for assessing transportation improvement projects as part of the Road Repair and Accountability Act of 2017, or SB 1. The SCCP through SB 1 requires that funding shall be available for projects that make specific performance improvements based on a CMCP. A CMCP is designed to reduce congestion in highly traveled corridors by providing more transportation choices for residents, commuters, and visitors to the area, while preserving the character of the local community and creating opportunities for neighborhood enhancement projects. This is consistent with SCCP guidelines which aims to reduce congestion and provide a strategy to balance transportation improvements, community impacts, and environmental benefits. The SR 49 CMCP closely follows both the CTC and Caltrans corridor planning guides.

Based on the CTC and Caltrans guidance, objectives of the CMCP process may include, but are not necessarily limited to:

- Defining multimodal transportation deficiencies and opportunities for optimizing system operations.
- Identifying the types of projects necessary to reduce congestion, improve mobility, and optimize multimodal system operations along highly traveled corridors.
- Identifying funding needs.
- Furthering State and Federal ambient air standards and greenhouse gas emissions reduction standards, pursuant to the California Global Warming Solutions Act of 2006 (Division 25.5, commencing with Section 38550, of the Health and Safety Code) and Senate Bill 375 (Chapter 728, Statutes of 2008).
- Preserving the character of local communities and creating opportunities for neighborhood enhancements.
- Identifying projects that achieve a balanced set of transportation, environmental, and community access improvements.

Corridor Planning Process Guide

The Caltrans Corridor Planning Process Guide assists in the development of updating or creating new corridor plans, studies, and documents. Caltrans develops multimodal transportation corridor plans with partners to help identify transportation improvements that result in a range of concepts and projects, consistent with Caltrans goals and policies. The Guide presents a flexible methodology and a basic Eight-Step Corridor Planning Process which includes the following:

1. Development of Scope
2. Gather Information
3. Conduct Performance Assessment
4. Identify Potential Projects and Strategies
5. Analyze Improvement Strategies
6. Select and Prioritize Solutions
7. Publish and Implement Corridor Plan
8. Monitor and Evaluate Progress

As part of this CMCP effort, Caltrans and our partners completed the following key tasks, consistent with the CTC and Caltrans guidelines:

- Developed SR 49 CMCP goals, objectives, and performance measures.
- Defined the study area and divided the study area into 4 key segments.
- Conducted regular meetings with a core TAC of partner agencies and Caltrans.
- Developed and implemented a stakeholder engagement strategy which included plan website, virtual open house, and an online survey.
- Presentations to the public at local and regional commission, Board, and committee meetings:
 - Nevada County Transportation Commission Meeting (November 18, 2020)
 - Placer County Transportation Planning Agency Board Meeting (January 27, 2021)
 - SACOG's Regional Planning Partnership (July 28, 2021)
- Conducted detailed data collection and analysis as part of current conditions and future baseline conditions assessment, which included socioeconomic data, travel demand and travel patterns, safety analysis, congestion analysis, and transit demand analysis.
- Identified planned investments and recommended projects as part of the CMCP to address known deficiencies based on partnership collaboration and review of state, regional, local plans, and programs.
- Developed an evaluation framework to assess the current conditions, future baseline conditions, and potential improvements.
- Conducted qualitative assessment of conceptual improvement projects based on project type. Projects were measured against metrics such as vehicles miles traveled (VMT) reduction, accessibility, person delay, air quality, safety, reliability, person throughput, and congestion.
- Determined the funding need and available transportation financing resources to support corridor investments.

A key element of the CMCP is to reduce congestion in highly traveled and highly congested corridors through performance improvements. To measure projects or groups of projects which result in performance improvements in the study area, a set of transportation performance metrics is applied. Some of these metrics can be assessed using quantitative data such as transportation model output, while others are qualitatively evaluated based on project type, project location, and other factors. This is consistent with the CTC guidelines which recognizes that data availability and modeling capabilities vary by agency based on available resources. Based on this, the CTC expects agencies to address performances of plans and projects through qualitative and quantitative analyses to a degree reasonable based on technical and financial resources available during the planning process.

As part of the CMCP process, a plan-level corridor performance assessment must be conducted and documented to clearly outline system performance and trends. Consistent with this requirement, this CMCP includes system performance measures based on discussions and agreements with partners, some of which includes congestion levels to the overall study area.

Per the CTC and Caltrans guidelines for the CMCP, it is critical to create multimodal corridor plans that closely match the local, regional, and state goals and objectives for transportation planning. The following sections are state policies and frameworks that work in conjunction with a CMCP. Their goals are consistent with the goals of a CMCP: to reduce congestion, increase multimodal options and improve air quality.



Climate Action Plan for Transportation Infrastructure (CAPTI)

The CTC adopted CAPTI on July 12th, 2021, which is their overarching framework and statement of intent for aligning State transportation infrastructure investments with California’s Climate, Health and Social Equity goals, with priority given to “fix-it-first” as stated in SB 1. The CAPTI serves as statewide policy to meet the Governor’s Climate goals and directs the California State Transportation Agency (CalSTA), Caltrans, and the CTC to address climate change as described in Executive Orders N-79-20 and N-19-19.

The CAPTI investment framework consists of:

- Investing in networks of safe and accessible bicycle and pedestrian infrastructure
- Addressing social and racial equity by reducing public health and economic harms and maximizing community benefits
- Building toward an integrated, statewide rail and transit network
- Investments in light, medium, and heavy-duty zero-emission vehicle (ZEV) infrastructure
- Making safety improvements to reduce fatalities and severe injuries of all users towards zero fatalities
- Promoting projects that do not significantly increase passenger vehicle miles traveled (VMT)
- Promoting compact infill development while protecting residents and businesses from displacement
- Protecting natural and working lands
- Assessing physical climate risk

CAPTI strategies include cultivating and accelerating sustainable transportation by leading with State investments and advancing State transportation leadership on climate and equity through improved planning and project partnerships. CAPTI efforts will support the California Transportation Plan (CTP) 2050 goals to meet State climate change targets, mandates, and policies. CAPTI is also closely aligned with the Caltrans 2020-2024 Strategic Management Plan which showcases a fundamental shift for Caltrans to lead climate action as a top priority.

California Transportation Plan 2050 (CTP 2050)

The CTP 2050, adopted in 2021, presents a vision for California’s future transportation system and articulates strategic goals, policies, and recommendations to improve multimodal mobility and accessibility while reducing greenhouse gas emissions. The CTP is committed to addressing the immediate threats of COVID-19, long-standing systemic injustice, and California’s firm commitment to combat climate change and the many risks it poses to our infrastructure and communities.

Senate Bill 391 (SB 391) requires the CTP to address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 and eighty percent below 1990 levels by 2050. The CTP outlines advancements in clean fuel technologies; continued shifts toward active transportation, transit, and shared mobility; efficient land use development practices; and how continued shifts to telework can collectively reduce transportation emissions to support these goals.

The CTP 2050 also reinforces long-held values such as improving system safety, improving mobility and accessibility, advancing environmental health and justice, and enhancing quality of life. In long-range planning, it is crucial that the strategies, goals, and projects identified for each corridor further the goals of CTP 2050. This will result in reducing greenhouse gas emissions while improving transportation for all users.

Smart Mobility Framework 2020 Guide

The Smart Mobility Framework (SMF) guides implementation of multimodal transportation strategies in support of compact and sustainable communities through a broad range of transportation and housing choices. Smart Mobility 2010: A Call to Action for the New Decade, provided concepts and tools to incorporate smart mobility principles into all phases of transportation decision-making. This was developed in partnership with the US Environmental Protec-

tion Agency, the Governor's Office of Planning and Research, and the California Department of Housing and Community Development.

In December of 2020, the Caltrans 2020 SMF Guide introduced strategies, performance measures, and analysis methods for implementing smart mobility, organized around five themes: network management, multimodal choices, speed suitability, accessibility and connectivity, and equity. The guide also describes the application of five "place types" to identify transportation planning and project development priorities across the state. These place types describe existing geographic areas based on location, land use, density, and other characteristics:

- Central Cities
- Urban Communities
- Suburban Communities
- Rural Areas
- Protected Lands and Special Use Areas

Each of the place types correspond to transportation planning priorities and serves as a guide, not a rule, for development of recommendations. Planners consider the specific characteristics of a given planning area in addition to local, regional, and State plans when recommending strategic transportation system investments.

SB 743 directs use of VMT, as a metric in place of Level of Service (LOS), to better measure transportation-related environmental impacts of any project and promote the reduction of greenhouse gas emissions through the development of multimodal transportation networks and diversifying land uses. The SMF Guide incorporates the intention of SB 743, as well as social equity and environmental justice, which are integral to all planning decisions. The SMF guides Caltrans and stakeholder agencies in assessing how well plans, programs, and projects support Smart Mobility.

Transit Planning

California Executive Order N-79-20 (Newsom) highlights the need to build towards an integrated, state-

wide rail and transit network, consistent with the California State Rail Plan, in order to provide seamless and affordable multimodal travel options for all.

California's transit systems face challenges due to sprawling and low-density land use patterns. When destinations are far apart, it becomes harder to efficiently serve more people with fewer vehicles, resulting in worsening chronic roadway congestion. Aside from major urban areas, many transit systems routes and schedules are not well-connected or coordinated, and require varying or inconvenient payment methods.

Equity and Transit

Local planning efforts need to include all aspects and modes of travel involved in a trip to ensure mobility for seniors, people with disabilities, and lower income communities. Lower-income communities of color own fewer cars and have a greater reliability on transit to fulfill their transportation needs. Unreliable transit networks, in terms of time and frequency, creates a burden for individuals reliant on the transit system. As the population ages, the share of Californians living with a disability is expected to increase. Seniors and other people with disabilities often rely on public transit to meet daily travel needs.

Transit Funding

The State and Caltrans promote all forms of public transportation in California by providing various funding opportunities through state programs such as SB 1, STIP, Low Carbon Transit Operations Program (LCTOP), Transit and Intercity Rail Capital Program (TIRCP), SCCP, Sustainable Transportation Planning grants, and California's Cap-and-Trade program. Funding through these programs assists transit agencies from the most urban areas to rural areas where only on-demand services are available.

Improving Transit

Looking to the future, Caltrans, along with the California Air Resources Board (CARB) and Califor-



nia State Transportation Agency (CalSTA), formed the California Integrated Travel Project (Cal-ITP) to improve transit scheduling coordination, payment methods, and trip-planning data by creating industry standards for California's transit providers.

Bicycle Planning

The CMCP was developed in cooperation with the public and local and regional partners to ensure that the recommended bicycle improvements on the SHS complement proposals for local and regional networks. The CMCP considers all types of bicycle trips, but prioritizes bicycle trips to daily necessities such as to work, school, shopping, recreational, or connection to transit.

The CMCP helps inform future investments on the State and local transportation bicycle network. This is critical as many funding programs require consideration of complete streets improvements as part of a project. Programs such as the State and regional Active Transportation Programs (ATP) fund complete street projects that include strategies to increase biking trips or enhance safety.

Broadband

Broadband service is an essential element of communication and an engine of economic activity as it provides educational opportunity, civic engagement, access to health care, teleworking, and much more. Income, education, disability status, age, race, and ethnicity all correlate with broadband availability and use. Residents in less populated areas generally have less access to broadband services. State right-of-way can be a source of expanding the broadband network which could provide increased accessibility to tribal land, rural communities, and priority populations.

California Governor's Executive Order S-23-06, Twenty-First Century Government, directed establishment of the California Broadband Task Force to bring together Caltrans, public, and private stakeholders to identify opportunities to facilitate broadband installation across the State. Assembly Bill (AB)

1549 of 2016 requires Caltrans to notify broadband deployment organizations on construction methods suitable for broadband installation through the Caltrans website. This would bring together private and public partnership for opportunities to increase advanced communication technologies. In 2018, Caltrans developed the "Incorporating Wired Broadband Facility on State Highway Right-of-Way User Guide," providing guidelines on Caltrans processes for wired broadband providers to incorporate wired broadband facilities in State highway right of way.

In 2021, the California Advanced Services Fund (CASF) provided \$645 million for the California Public Utility Commission to provide broadband access to no less than 98% of California households in each region. It has funded 17 regional broadband consortia across the State that have identified "Strategic Broadband Corridors" which are now used as part of Caltrans planning efforts to provide broadband services to areas currently without broadband access and build out facilities in Equity Priority Community areas. Caltrans encourages developing partnerships with stakeholders and the regional broadband consortium during planning, environmental scoping, and project development to integrate broadband into projects.

Equity Statement

State Departments of Transportation are bound by law to consider the needs of residents with low incomes, communities of color, people with limited English proficiency, seniors, the disabled, and other communities and individuals when developing transportation plans.

Caltrans acknowledges that communities of color and priority populations have experienced fewer benefits and a greater share of negative impacts associated with our State transportation system. Some of these disparities reflect a history of transportation decision-making, policies, processes, planning, design, and construction that put up barriers, divided communities, and amplified racial inequities, particularly in our Black and Brown neighborhoods. Caltrans recognizes our leadership role and unique responsibility to eliminate barriers and provide more

equitable transportation for all Californians. This understanding is the foundation for intentional decision-making that recognizes past and stops current future harms from our actions.

To ensure our processes and projects address equity, Caltrans is developing public outreach methodologies for increasing participation from Equity Priority Community members and local community-based organizations (CBOs) as part of our planning and project development processes.

Environmental Justice

Information used in identifying potential environmental justice issues are documented in corridor plans so transportation projects can address the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income. This applies to the Caltrans processes, from the early stages of transportation planning and investment decision making, through the construction, operations, and maintenance phases. Title VI of the Civil Rights Act of 1964 states “No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Executive Order 12898, issued in 1994, gave a renewed emphasis to Title VI and added low-income populations to those protected by the principles of environmental justice .

There are three fundamental principles at the core of environmental justice:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial, reduction, or significant delay the receipt of benefits by minority and low-income populations.

Priority Populations

The equity measure analyzes scenarios and defines priority populations. This include variables such as minority populations, low-income areas, less English proficient populations, seniors (age 75 and older), zero-vehicle households, single-parent households, people with disabilities, and rent-burdened households.

State Rail Plan

The 2018 State Rail Plan is a strategic plan with operating and capital investment strategies that guide the coordination and development of a statewide travel system. The Rail Plan is an important element in the comprehensive planning and analysis of statewide transportation investment strategies detailed in the CTP 2040. In concert with CTP 2040 and other plans, the Rail Plan will help improve air quality, invigorate cities, and provide increased mobility for California in the future. State, local, and regional plans build off the Rail Plan to increase regional rail capacity, develop transit networks, and set land use recommendations that benefit from enhanced connectivity. Federal and State grant awards and funding decisions will consider project alignment with the 2040 Passenger Rail Vision (2040 Vision) and strategies reflected in the Rail Plan.

Consistent with federal and State laws, the Rail Plan proposes a unified statewide rail network that better integrates passenger and freight service, connects passenger rail to other transportation modes, and supports smart mobility. The Rail Plan aims to capture an increasing percentage of travel demand by rail. The rail system has the potential capacity to provide more service, with more efficient performance with longer trains, more frequent services, better connectivity, and greater ease of access. Addressing these areas will grow the number of riders and reduce the average costs per passenger. More trains, with shorter headways and faster travel times, can be more competitive with automobiles and airlines, thus motivating travelers to use rail and transit more frequently. This will provide another option for travelers to be less dependent on automobiles and air travel.



California Freight Mobility Plan 2020

The guiding vision of the California Freight Mobility Plan (CFMP) is to influence freight sustainability in California from three perspectives: economic vitality, environmental stewardship, and social equity. The CFMP has seven goals to ensure California's freight transportation system continually works towards greater efficiency, less-pollution, and higher-capacity in its freight facilities, equipment, and operations. The CFMP development was advised by the California Freight Advisory Committee (CFAC), a group of representatives from private and public sector freight stakeholders from airports, seaports, railroads, shippers, carriers, and industry workforce. The CFMP analyzed California's freight system from seven regional perspectives to highlight the uniqueness and the different needs of each region. The CFMP also includes project lists for each region that serve as a basis for the SB 1 Trade Corridor Enhancement Program (TCEP) funding.

Interregional Transportation Strategic Plan 2021

The Interregional Transportation Strategic Plan (ITSP) provides guidance for the identification and prioritization of projects to improve interregional movement of people, vehicles, and goods, and achieve a sustainable, integrated, and efficient transportation that enhances California's economy and livability. The California State Legislature recognized the importance of interregional travel and the need for the State to target investments in key corridors through the designation of the Interregional Road System (IRRS). As part of this effort, 93 important interregional routes were identified in the 1989 Blueprint Legislation (a ten-year transportation funding package created by AB471, SB 300, and AB 973).

Senate Bill 45 (SB 45), 1997, dedicates 25 percent of State Transportation Improvement Program (STIP) funding to interregional highways and passenger rail. The State portion of interregional improvement funds is programmed in the Interregional Transportation Improvement Program (ITIP) every two years. The goals and objectives of the ITSP apply to a subset of the IRRS and intercity rail corridors, thereby guiding investment decisions to prioritize projects of the ITIP. The ITSP was updated in 2021 and there is an addendum under development that will be completed in 2022.

Corridor Goals and Objectives

The purpose of the preceding sections is to tie in the policies and objectives of the statewide plans with those of the CMCP. As discussed previously, the purpose of the CMCP, similar to other Caltrans and State plans and policies, is to provide a safe, efficient, accessible, and connected system of transportation that emphasizes multimodal options, reduces greenhouse gases, and reduces VMT. This is achieved through collaboration, creativity, and sustainability.

As discussed, the CTC and Caltrans guiding documents contain recommended corridor planning goals, objectives, performance metrics, and evaluation criteria for assessing transportation improvement projects at the corridor level. These goals, objectives and performance measures can be seen below in Table 2.1.

Table 2.1 SR 49 CMCP Corridor Goals, Objectives and Performance Measures

Goals	Objectives	Performance Metrics
1. Safety	1.1 Reduce the number of incidents within the corridor.	<ul style="list-style-type: none"> • Number/severity/type of collisions on highways • Number/severity/type of bicycle collisions • Number/severity/type of pedestrian collisions
	1.2 The corridor as an Emergency Route.	<ul style="list-style-type: none"> • Priority Emergency Escape Routes • Contraflow Capabilities • Access Use by First Responders
2. Efficiency	2.1 Reduce recurring delay	<ul style="list-style-type: none"> • Vehicle Hours of Delay (VHD) • Person Hours of Delay (PHD)
	2.2. Improve Productivity	<ul style="list-style-type: none"> • Person Throughput • Freight Throughput • Transit Ridership
	2.3 Increase vehicle by Occupancy Mode.	<ul style="list-style-type: none"> • Vehicle Occupancy Rate • Percentage of single occupancy vehicle (SOV) to non-SOV by Mode • Share of alternative modes
3. System Reliability	3.1 Improve Highway Travel Time	<ul style="list-style-type: none"> • Travel Time by Mode • Buffer Time Index • Planning Time Index
	3.2 Reduce Non-recurring Delay	<ul style="list-style-type: none"> • Response Time of non-recurring incidents (planned) • Clearing Time of non-recurring incidents (collisions)
	3.3 Improve Transit On-Time Performance	<ul style="list-style-type: none"> • Transit on-time performance • Number of transit operational improvements
4. Multimodal Accessibility & Connectivity	4.1 Improved access and connections to existing or future transit hubs	<ul style="list-style-type: none"> • Number of transit access improvements • Number of active transportation improvements at transit hubs
	4.2 Reduce gaps in bicycle network	<ul style="list-style-type: none"> • Bicycle lane miles by facility classification • Bike/pedestrian freeway crossing spacing/density
	4.3 Reduce gaps in the pedestrian network	<ul style="list-style-type: none"> • Pedestrian walkway miles, including bike/pedestrian crossings
5. Air Pollution/ Greenhouse Gas Emission Reductions	5.1 Reduce Vehicle Miles Traveled and Delay	<ul style="list-style-type: none"> • Total VMT and VHD • Per Capita VMT and VHD
	5.2. Reduce Criteria Pollutants	<ul style="list-style-type: none"> • Emissions of criteria pollutants: carbon monoxide (CO), lead, nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM) and sulfur dioxide (SO₂)
	5.3 Reduce Greenhouse Gas	<ul style="list-style-type: none"> • Emissions of Greenhouse Gas
6. Economic Prosperity	3.1 Increase freight efficiency	<ul style="list-style-type: none"> • Freight throughput
	3.2 Promote access to jobs	<ul style="list-style-type: none"> • Share of jobs accessible in congested conditions
	3.3 Reduce Per Capita freight delay	<ul style="list-style-type: none"> • Per capita delay on freight network

Table 2.1 SR 49 CMCP Corridor Goals, Objectives and Performance Measures, Con't.

Goals	Objectives	Performance Metrics
7. Modern Infrastructure & Asset Management	7.1 Close gaps in TOS elements	<ul style="list-style-type: none"> • Number of TOS elements installed • Presence of fiber optic
	7.2 Ensure good TOS health	<ul style="list-style-type: none"> • TOS elements uptime percentage • Percentage of TOS elements inspected/maintained
	7.3 Improved Pavement Conditions	<ul style="list-style-type: none"> • Pavement Conditions Index Rating
	7.4 Upgrade facilities to current multimodal standards	<ul style="list-style-type: none"> • Number of bike facilities upgrades • Bike/pedestrian freeway crossing spacing/density • Number of transit operational improvements
8. Efficient Land Use	8.1 Reduce reliance on SOV	<ul style="list-style-type: none"> • Non-SOV mode share • Non-vehicle mode share
	8.2 Reduce trip length & overall trip generated	<ul style="list-style-type: none"> • Per capita VMT



Auburn Conheim Amtrak Station

Chapter Three: Corridor Context

Corridor Context

The two-county corridor area is primarily made of land that is rural or agricultural in nature. Throughout the nearly 25-mile corridor, there are multiple recreational areas and small communities with populations under 5,000. These areas include small commercial locations that are geared towards the rural communities.

Community Characteristics

Demographics

Nevada County

Nevada County has just under 100,000 residents and is the smallest population of the two counties within the SR 49 study area. According to the 2020-2021 Nevada County Executive report, the largest percentage of people per square mile are located in the unincorporated areas of Nevada County, outside of the cities of Grass Valley and Nevada City. Like other rural counties, due to the sprawled nature of developments, most trips are done through single-occupancy vehicles. This impacts SR 49 as it is a central north-south connector for interregional and intraregional trips within the study area. Interregional trips represent a high percentage of residents commuting out of Nevada County who are working in Placer County, Sacramento County, and Washoe County, Nevada. Table 3.1 shows demographics of Nevada County as of 2020 which is the most current data from the United States Census Bureau.

Total Population	99,417
White	92.1%
Black or African American	0.6%
American Indian and Alaska Native	0.5%
Asian	1.1%
Native Hawaiian and Other Pacific Islander	0.2%
Some other race	1.2%
Two or more races	4.5%
Hispanic or Latino and Race	
Hispanic or Latino (of any race)	9.5%
Not Hispanic or Latino	90.5%
Population Density (people/square mile)	102.07
Total households (occupied housing units)	40,917
Average household size	2.43
Owner-occupied housing units	74.8%
Renter-occupied housing units	25.2%
No vehicles available	3.6%
Median household income (dollars)	\$66,333
Mean travel time to work (minutes)	24.7

United States Census Bureau, "2020 ACS 5-year Estimates, Nevada County, California".
<https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2020/>

Placer County

Placer County has the highest population of the two counties along SR 49 within the study area, with just over 391,000 residents. Based on information from the 2019 American Community Survey (ACS) 1-year estimate, the majority of Placer County residents drive to work alone, with a small percentage of residents utilizing other options for transportation such as carpooling, walking, biking, and public transportation. More than a third of the residents work in Placer County where as the rest are commuting outside of the county to areas such as Sacramento, San Francisco, and Yolo Counties. The County has a projected population of 511,683 by 2040. Table 3.2 shows demographics of Placer County as of 2020 which is the most current data from the United States Census Bureau.

Total Population	391,799
White	80.4%
Black or African American	1.6%
American Indian and Alaska Native	0.6%
Asian	8.2%
Native Hawaiian and Other Pacific Islander	0.2%
Some other race	2.7%
Two or more races	6.4%
Hispanic or Latino and Race	
Hispanic or Latino (of any race)	14.3%
Not Hispanic or Latino	85.7%
Population Density (people/square mile)	260.85
Total households (occupied housing units)	145,714
Average household size	2.73
Owner-occupied housing units	73.4%
Renter-occupied housing units	26.6%
No vehicles available	3.7%
Median household income (dollars)	\$93,677
Mean travel time to work (minutes)	27.6

United States Census Bureau, “2020 ACS 5-year Estimates, Placer County, California”. <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2020/>

Major Trip Generators

In Placer and Nevada Counties, SR 49 traverses three cities with various land uses, some of which include State/regional open space, commercial, and residential developments in rural communities. Below is a list of major trip generators in the vicinity of the corridor, some of which are outside of the CMCP limits, but influence travel within the Corridor.

Trip Generators in the Corridor

- American River State Recreation Area
- Bear River High School
- Downtown Auburn
- Downtown Grass Valley
- Downtown Nevada City
- Empire Mine State Park
- Hidden Falls Regional Park
- Idaho Maryland Mine
- Placer County Government Offices
- Nevada County Fairgrounds
- Nevada Union High School
- Nevada County Government Offices
- Placer High School
- Sierra College, Nevada County Campus
- Sierra Nevada Memorial Hospital
- South Yuba River State Recreation Area
- Sutter Auburn Faith Medical Center
- Wineries along the SR 49 Corridor



Priority Populations

Caltrans is committed to working with local partners to improve the lives of residents in priority populations to provide a transportation network that accommodates all users, while providing a safe and reliable transportation network that serves all people and respects our shared environment.

The State of California, as of 2022, does not have a uniform definition of what constitutes an Equity Priority Community. Generally, priority populations refer to the areas throughout California which suffer from a combination of economic, health, and environmental burdens. These burdens include poverty, high unemployment, air and water pollution, presence of hazardous wastes, and high incidents of asthma and heart disease.

In 2012 the California State Legislature passed Senate Bill (SB) 535, which required a minimum of 25% of the available proceeds be allocated to projects that provide a benefit to priority populations; at least 10% of the available proceeds be allocated to projects located within priority populations. SB 535 also directed the California Environmental Protection Agency (CalEPA) to identify priority populations for the purposes of the Greenhouse Gas Reduction Fund (GGRF) programs based on geographic, socioeconomic, public health, and environmental hazard criteria. Assembly Bill (AB) 1550 increased the percentage of funds for projects located in priority populations from 10 to 25 percent. This supplants the requirement in SB 535 that 25 percent of the funds must benefit priority populations.

Pursuant to SB 535 requirements, CalEPA has been directed to look beyond poverty and income statistics, to identify those areas of the State that are also disproportionately impacted by environmental pollution and negative public health effects. In response, CalEPA developed CalEnviroScreen, a tool that helps identify California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution based on : 1) Transportation sector GHG emissions; 2) Access to destinations by income and race; and 3) Transportation and housing cost burden by income quintile and race

Census Tracts and Segments

There are four segments that are the focus of this CMCP. Each segment begins and ends at a designated postmile (PM) along the SR 49 corridor. These segments pass through census tracts, which are small, relatively permanent statistical subdivisions of a county. Census tracts contain a minimum and maximum population of 1,200 and 8,000 residents. Census tracts can be split or merged depending upon shifts in population.

Census tracts are utilized by CalEnviroScreen to qualify a community's status. In 2017, CalEnviroScreen 3.0, ranked census tracts between 91-100% (the most impacted) and 1-10% (the least impacted) based upon the burden markers mentioned above,

Identifying Priority Populations

CalEnviroScreen uses a series of thresholds to identify a community's potential for being a disadvantaged community. See below for element being considered by CalEnviroScreen.

- Pollution burden
- Ozone
- PM 2.5
- Diesel
- Pesticides
- Toxic releases
- Traffic
- Drinking water
- Cleanups
- Groundwater threats
- Hazardous waste
- Impaired water



- Solid water
- Asthma
- Low birth weight
- Cardiovascular rate
- Education
- Linguistic isolation
- Poverty
- Unemployment
- Housing burden

The SR 49 CMCP corridor development team used the following method to identify priority populations based on CalEnviroScreen Data:

- Import the CalEnviroScreen shapefiles into GIS to show all census tracts in Nevada and Placer Counties.
- Filter census tracts by percentage. Those scored 70% or greater are retained.
- Apply a two-mile buffer around the Corridor.
- Census tracts with a percentile of 70% or greater that are located within the two-mile buffer are identified.

Priority Populations by Segment

The following information is based on segments created for the CMCP analysis which are summarized in Chapter 5:

Segment 1 – Placer County

Segment 1 begins in Placer County on SR 49 at the junction of I-80 in Auburn and ends in Placer County at Dry Creek Road. There are five (5) census tracts in Segment 1; all below the 50th percentile – meaning Segment 1 does not face an increased potential for environmental/economic burden and would not be classified as having priority populations.

Segment 2 – Placer and Nevada County

Segment 2 begins in Placer County on SR 49 at Dry Creek Road and ends in Nevada County at Wolf/Combie Road. There are six (6) census tracts in Segment 2; all below the 50th percentile – meaning Segment 2 does not face an increased potential for environmental/economic burden and would not be classified as having priority populations.

Segment 3 – Nevada County

Segment 3 begins in Nevada County on SR 49 at Wolf/Combie Road and continues on SR 49 to La Barr Meadows Road. There are four (4) census tracts in Segment 3; all below the 50th percentile – meaning Segment 3 does not face an increased potential for environmental/economic burden and would not be classified as having priority populations.

Segment 4 – Nevada County

Segment 4 begins in Nevada County on SR 49 at a Barr Meadows Road and continues on SR 49 until the junction with SR 20 in Grass Valley. There are four (5) census tracts in Segment 4; of the four (4) census tracts, one (1) is above the 50th percentile and another at or above the 70th percentile. Meaning that these two census tracts within Segment 4 face an increased potential for environmental/economic burden and could be classified as having priority populations.



Chapter Four: Multimodal Facilities

Multimodal Facilities

SR 49 within the study area varies between facility types based on the location of the route. In areas where the roadway acts as a main street, there are more interactions with multimodal facilities. The purpose of this chapter is to assess the multimodal facilities along the SR 49 Corridor. These facilities include the transit/rail network, the bike/pedestrian infrastructure, freight movement, travel demand management, local parallel routes, park and ride locations, and zero emission vehicle stations. At the State level, Caltrans Deputy Directive DD-64-R2 requires Caltrans to provide for the needs of travelers of all ages and abilities in our planning, programming, design, construction, operations, and maintenance activities.

Transit and Rail Network Assessment:

Along the SR 49 corridor there are three public transit agencies. Those agencies include Nevada Transit Services, Placer County Transit (PCT), and Auburn Transit.

Nevada County Connects (formerly Gold Country Stage):

Transit services within Nevada County are provided by Nevada County Connects, also known formerly as Gold Country Stage. The main transit center for Nevada County is the Tinloy Street Transit Transfer Center located at 118 Tinloy Street, Grass Valley, CA 95945. In total, Nevada County Connects operates a total of seven routes, with 11 buses, within Nevada County. Along the SR 49 corridor, Route 5 is the primary transit route in the Nevada County Connects service which operates between Grass Valley and Auburn. Route 5 passengers can transfer to and from Placer County Transit, Auburn Transit, Sacramento Light Rail connectors, and the Amtrak Capitol Corridor via the Auburn-Conheim Station. Route 5 only provides transit services during weekdays between the hours of 5:30 a.m. and 7:30 p.m. Transit stops within the vicinity of the SR 49 Corridor include the following:

- Higgins Village at Combie Road
- SR 49 at Mountain Air Mobile Home Park (On Demand)
- SR 49 at Forest Springs Mobile Home Park (On Demand)
- Alta Sierra Drive at Little Valley Road
- Alta Sierra Drive at Johnson Place
- SR 49 at Combie Higgins Village
- Lake Center at Lake of the Pines

Auburn Transit:

Auburn Transit operates within the City of Auburn city limits and a small portion of unincorporated Placer County. Auburn Transit's fleet consists of two 100% Electric Cutaways buses, one compressed Natural Gas bus, and two fossil fueled buses. Two routes are provided within the transit system: one to the American River Confluence and the other is a fixed route service servicing the heart of the city. As of October 2021, Auburn Transit also provides on-demand transit service for residents. To assist with connectivity, the Auburn-Conheim Station within the Nevada County Connects system provides direct connections to other local and regional systems such as the Amtrak Capitol Corridor, Placer County Transit, and Nevada County Connects.



Placer County Transit:

Placer County Transit (PCT) operates in Placer County and manages a fleet of 29 buses over five routes (11 fixed route, 5 commuter buses, and 13 cutaways). The destination of the PCT routes includes connections to cities such as Lincoln, Colfax, and Rocklin; educational facilities such as Sierra College; and transit partners such as SacRT light rail and the Lincoln Circulator. Transit riders can transfer to different routes at the PCT Regional Transit Center located at 11432 F Avenue, Auburn, CA 95603.

PCT’s Route 30 provides transit services to the southern portion of the SR 49 Corridor. Below are the transit stops within the vicinity of the SR 49 Corridor:

- Auburn Station
- Nevada Street at Enterprise Drive
- Nevada St at Theatre
- Northbound Highway 49 at Edgewood Road
- Northbound Highway 49 at Luther Road
- Atwood Road
- Richardson Drive at B Avenue
- Bell Road at County Center Drive
- 1st Street at C Avenue
- F Avenue at 1st Street
- Atwood Road at Corral
- Highway 49 and Atwood
- Plaza Drive and Plaza Way
- Target
- Professional at Bell Road
- Education Street at Professional Drive
- Locksley Lane east of Highway 49
- Earhart Dr at Rickenbacker Way
- Target
- Galena Drive at Quartz Drive
- Sapphire Drive at Garnet Way
- Chana Park
- Richardson Drive at Dry Creek
- Dry Creek Road at Dry Lake Lane
- Highway 49 at Dry Creek
- Highway 49 at Quartz Drive

Passenger Rail Network:

Amtrak has two rail lines that serve the SR 49 community with daily passenger rail service: the Capitol Corridor and the California Zephyr. The Capitol Corridor has its eastern terminus at the Auburn-Conheim Station and continues west through Sacramento to Oakland and San Jose. The California Zephyr has an intermediate stop at the Colfax Station along SR 174 and I-80 and is a national train that serves communities between Emeryville, California, and Chicago, Illinois.

Amtrak also has thruway bus service that has passenger pickups in Colfax, Auburn, Rocklin, and Roseville to connect those communities with additional Capitol Corridor and San Joaquin service in Sacramento.

PCT also provides express commuter service routes between Auburn and downtown Sacramento. The commuter bus service provides three routes leaving Auburn-Conheim Station at 5:43 a.m., 6:03 a.m., and 6:37 a.m.

Freight Rail Network:

The Union Pacific Railroad (UPRR) has one subdivision adjacent to the SR 49 corridor where it hauls freight regionally and nationally: the Roseville Subdivision which parallels both I-80 and SR 49 from Roseville, through the Sierra Nevada, and all the way to the Nevada State line which is the major transcontinental line for UPRR.

BNSF Railroad trains have track rights on the UPRR subdivision. The existing freight rail network largely benefits the agriculture industry in the region by providing an easy way for farmers and the agriculture industry to get their products throughout the country. Due to the existing freight lines, there is also potential for future passenger rail service extensions into the region. Figure 4.1 shows the passenger and freight rail routes that run in Nevada and Placer Counties.

Table 4.1 Amtrak Routes

Amtrak Route	Origin-Destination
California Zephyr	• Emeryville/Sacramento/Roseville/Colfax/Truckee/Chicago
Capitol Corridor	• Auburn/Roseville/Sacramento/Oakland/San Jose
Thruway Bus Route 20	• Sacramento/Roseville/Auburn/Reno Stockton

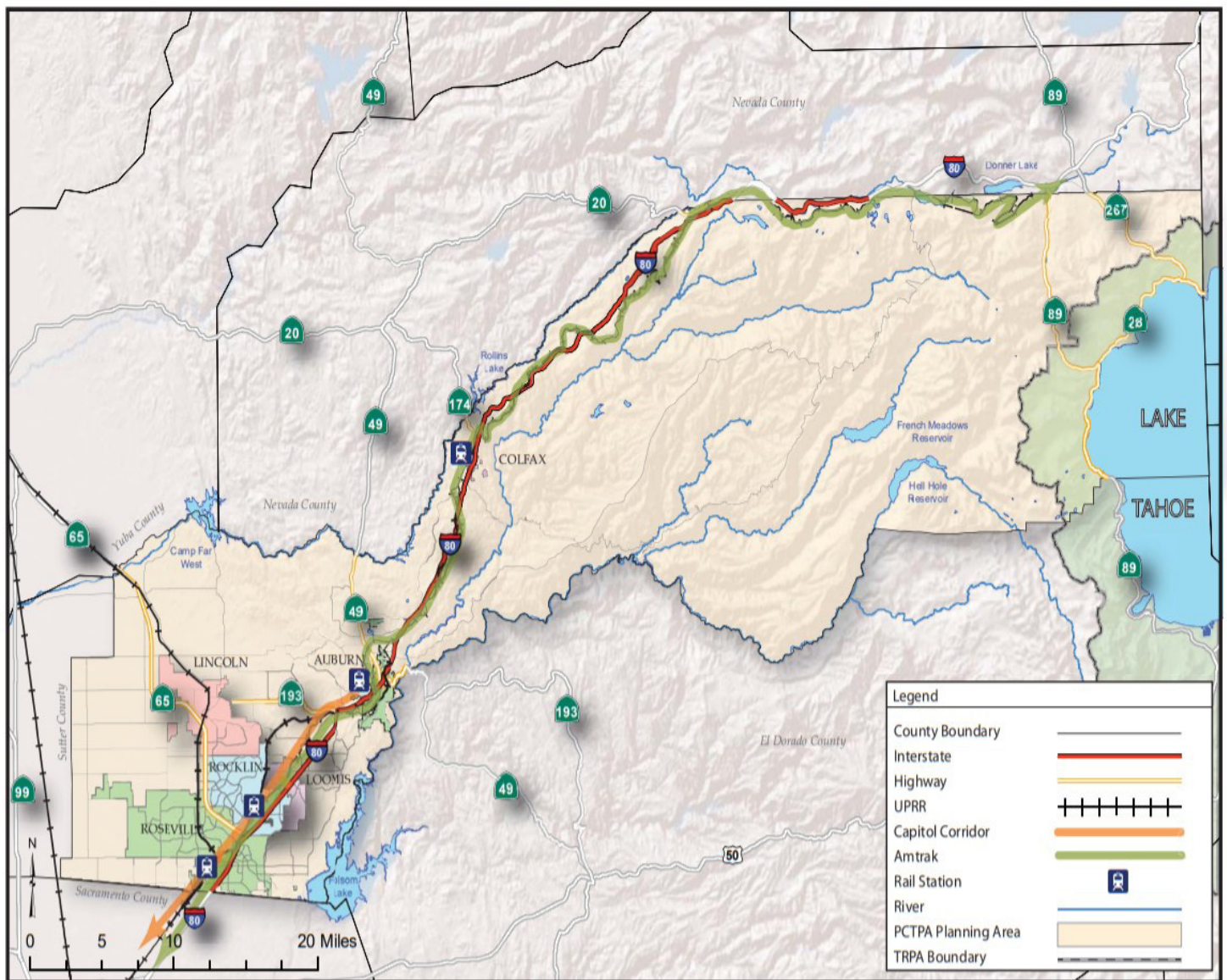


Figure 4.1 Nevada and Placer Rail Map

Bike and Pedestrian Assessment

In addition to State policies and plans on bicycle and pedestrian facilities, the individual counties along the SR 49 corridor have adopted their own Bicycle and Pedestrian Transportations Plans. These plans aim to outline the goals and needs of the bicycle and pedestrian facilities within their respective county.

Throughout the corridor there are numerous levels of bicycle and pedestrian facilities. The following is an explanation of each bicycle facility classification.

Class I – Bicycle Path. Class I facilities are multi-use facilities that provide a completely separated right-of-way for the exclusive use of bicycles and pedestrians with minimal interaction with motorized traffic.

Class II – Bicycle Lane. Class II facilities provide a striped and signed lane for one-way bicycle travel within the paved area of a roadway that's shared with motor vehicles. The minimum width for bike lanes ranges between four and six feet depending upon the edge of roadway conditions (curbs). Class II bike lanes are demarcated by a six-inch white stripe, signage, and pavement legends.

Class III – Bicycle Route. Class III facilities provide signs for shared use with motor vehicles within the same travel lane on a street or highway. Bike routes may be enhanced with warning or guide signs and shared lane marking pavement stencils. While Class III routes do not provide measure of separation, they have an important function in providing continuity to the bikeway network.

Class IV – Separated Bikeway. An exclusive bike-way for bicyclists that is separated from the roadway. Separations may include grade separation, flexible posts, physical barriers, or on-street parking.

Sidewalk – A sidewalk is identified to be a pedestrian-dedicated paved walkway that is located adjacent to a roadway. Sidewalks may be constructed using either Portland cement concrete (PCC) or asphalt concrete pavement materials.

Caltrans Active Transportation Plan

Caltrans District 3 is currently developing the Caltrans Active Transportation Plan (CAT Plan). The CAT Plan identifies and prioritizes bicycle and pedestrian needs on and across the SHS in District 3. The CAT Plan is part of a statewide effort to identify opportunities for bicycle and pedestrian infrastructure improvements and to create a safe, comfortable and well-connected system of bicycle and pedestrian networks across District 3. The Final Plan is expected to be completed by Spring/Summer 2022 and can be found at the plan's website: <https://www.catplan.org/district-3>

In general, the following strategies should be implemented where appropriate to ensure the safety of bicyclists and pedestrians as well as to provide connections for multi-modal travel.

Complete Streets Strategies:

- Reconstruct ramps to intersect crossroads at a ninety-degree angle with as small a radius as possible and install a stop or signal control
- Encourage slower vehicle speeds until past ramp entry
- Limit on-ramps to a single-entry lane, where feasible
- Provide single, rather than dual, right-turn only lanes, or minimize conflicts where dual right turn lanes are required
- If a dual right-turn only lane is required, channelize it and split into two separate movements
- Widen sidewalks and shoulders to standard widths, in general, a minimum of six feet.

Pedestrian Strategies:

- Locate crosswalks appropriately while considering speed, sight lines, and crossing distance
- Leading pedestrian interval to give pedestrians an extra three to five seconds to begin crossing the street before cars get a green light
- Shorten crossing- distances
- Install pedestrian warning signs, yield signs, pedestrian-actuated beacons, and high-visibility crosswalks where crossings are uncontrolled or yield-controlled

- Provide sidewalks on both sides of overcrossings and under-crossings, where feasible
- For ramp crossings, add pedestrian signals coordinated with adjacent traffic signals
- Install accessible pedestrian signals to assist pedestrians crossings
- Lighting at uncontrolled crossings, pedestrian scaled lighting
- Provide “no right-turn on red” signs where there are two right turn-lanes and a pedestrian crossing

Bicycle-Specific Strategies:

- Provide context sensitive bicycle facilities (such as Class I, II, III, or IV bike facilities) on all road crossings or along the corridor as applicable, including those through interchanges
- Provide a bicycle pocket or bike lane to the left of dedicated right turn lanes or a Class IV separated bike-way to the right with a protected crossing
- Widen/add buffers to existing and proposed bike lanes

Equity & Accessibility

Mapping that was developed by the California Air Resource Board identifies that the residential areas adjacent to the SR 49 Corridor Improvement Project (CIP) on both sides of project are identified as AB 1550 low-income communities. The Nevada County Active Transportation Plan (2019) identifies the need for Class II bicycle lanes and Class III multi-use shoulders along SR 49 from the current northern project limits, south of the McKnight Way Interchange, to the Nevada County/Placer County Line.

The SR 49 CIP eliminates the gap that currently exists between SR 49 south of the McKnight Way Interchange and the previously completed SR 49/La Barr Meadows improvement project by creating a Class III bicycle and pedestrian facility. This new connection address connectivity issues for residential areas adjacent to La Barr Meadows Road, some of which are located off Lode Line Way, Young American Mine Road, Cornette Way, Wellswood Way, Upward Way, and Smith Road. The CIP also benefits commercial land uses located

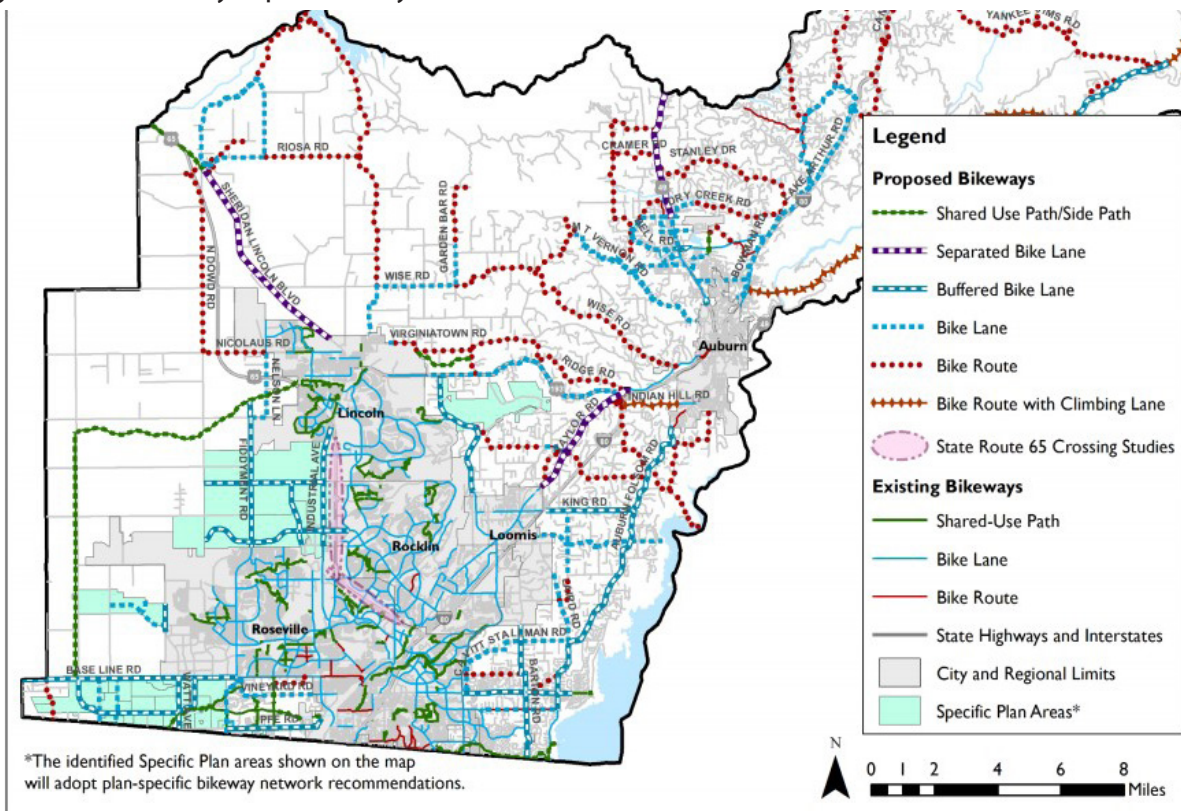


Figure 4.2 Placer County Bike Map

in the vicinity of the McKnight Way Interchange in the City of Grass Valley. Adjacent to the project, there is an existing Class III multi-use bicycle lane on Dog Bar Road to Rattlesnake Road. This segment of SR 49, south of the McKnight Way Interchange, is also utilized by recreational cyclists who travel along the shoulder of the highway to access Auburn Road as part of a popular recreational loop. Auburn Road is identified in the Nevada County Active Transportation Plan (ATP) as a future planned segment for a Class III multi-use shoulder and Class II Bike Lanes that connects to McCourtney Road near the Nevada County Fairgrounds.

Once the SR 49 CIP is completed, the next key bicycle/pedestrian improvement on SR 49 will be to construct 10 foot shoulders from the southern terminus of the previous SR 49/La Barr Meadows Road improvement project to the commercial land uses located off of SR 49/Alta Sierra Drive. This would provide pedestrian, transit, and bicycle connectivity between the unincorporated community of Alta Sierra (census designated place, approximately 7,207 population) and the City of Grass Valley.

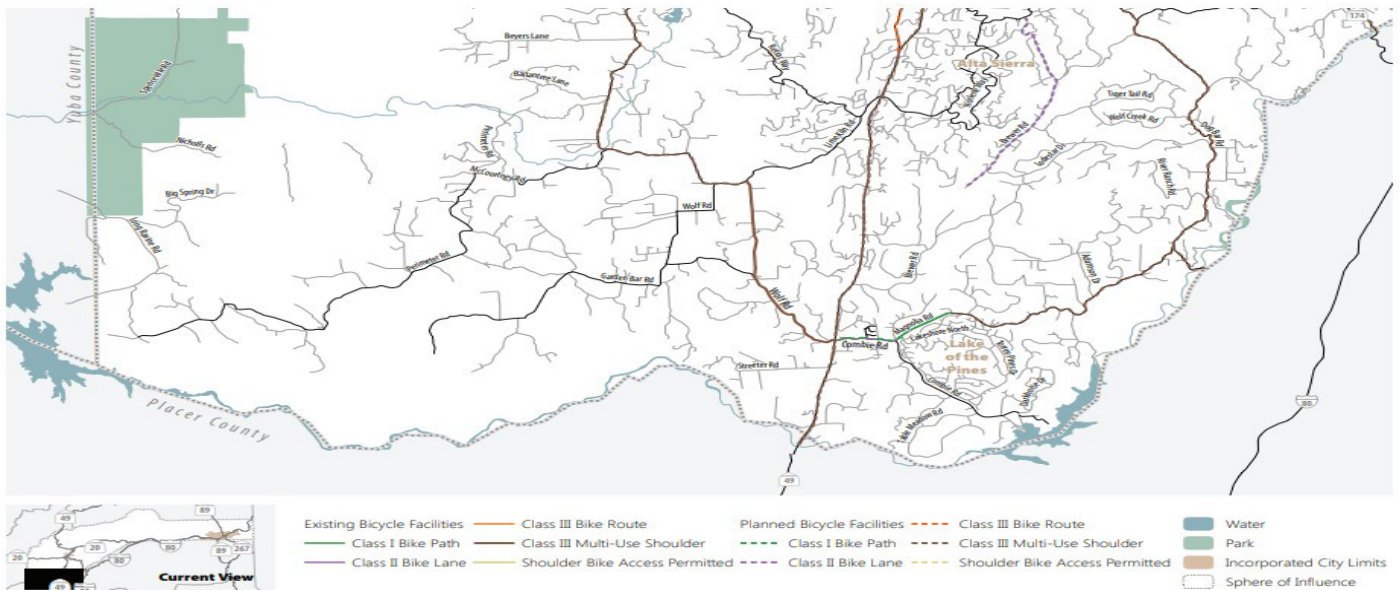


Figure 4.3 South Nevada County Bike Map

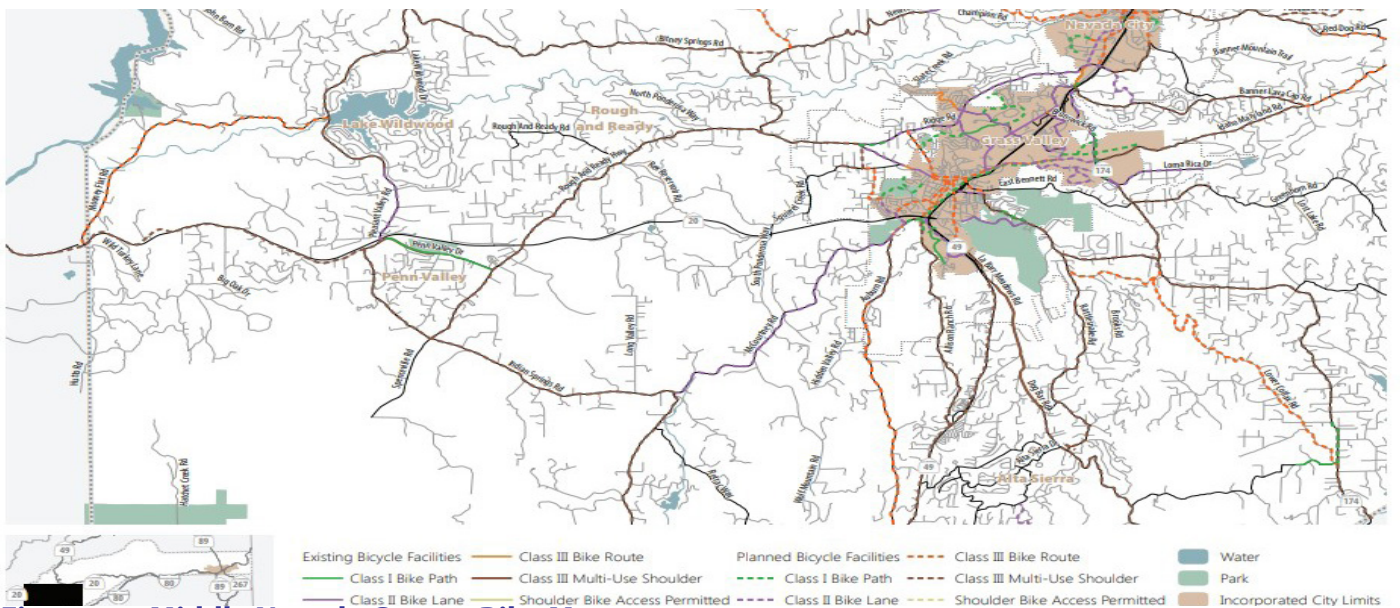


Figure 4.4 Middle Nevada County Bike Map

Freight Assessment:

Interregional Transportation Strategic Plan, 2021

The Caltrans Interregional Transportation Strategic Plan (ITSP) is a long-range planning document that provides guidance for the identification and prioritization of interregional transportation projects based on the State's interregional transportation system. The policies of the plan focus on improving the interregional movement of people and freight in a safe and sustainable manner that supports the economy. The SR 49 Corridor is included within the San Jose/San Francisco Bay Area-Sacramento-Northern Nevada strategic interregional corridor (Figure 4.5). The ITSP was finalized in 2021, however, there is an addendum being developed to the plan that will be completed in late 2022. The ITSP will implement the interregional portion of the CTP.

The 2021 ITSP can be found at <https://dot.ca.gov/programs/transportation-planning/multi-modal-system-planning/interregional-transportation-strategic-plan>.

The SR 49 Corridor connects to the I-80 corridor and the UPRR route that provide national connectivity to San Francisco Bay Area seaports and the agricultural regions of the Central Valley and the Salinas Valley. I-80 is the main facility serving local, regional, and interregional movement of people and goods across an urban, suburban, rural, and open space landscape supporting interregional and regional commuting, freight movement and recreational travel. Much of the goods and services that originate and have a destination along the SR 49 corridor use both of these major transportation facilities. To improve freight facilities along the route, the following strategy concepts will help achieve the economic prosperity goals listed in Chapter 2:

- Expand Vehicle and Freight Truck ZEV Charging Infrastructure
- Implement Advanced Technology
- Improve Safety
- Provide STAA Truck Accessibility
- Balance Local Community and Interregional Travel Needs
- Improve Freight Reliability by Keeping Highway Infrastructure in a State of Good Repair
- Increase Connectivity and Accessibility to Modal Options
- Improve Emergency Evacuation Alternatives

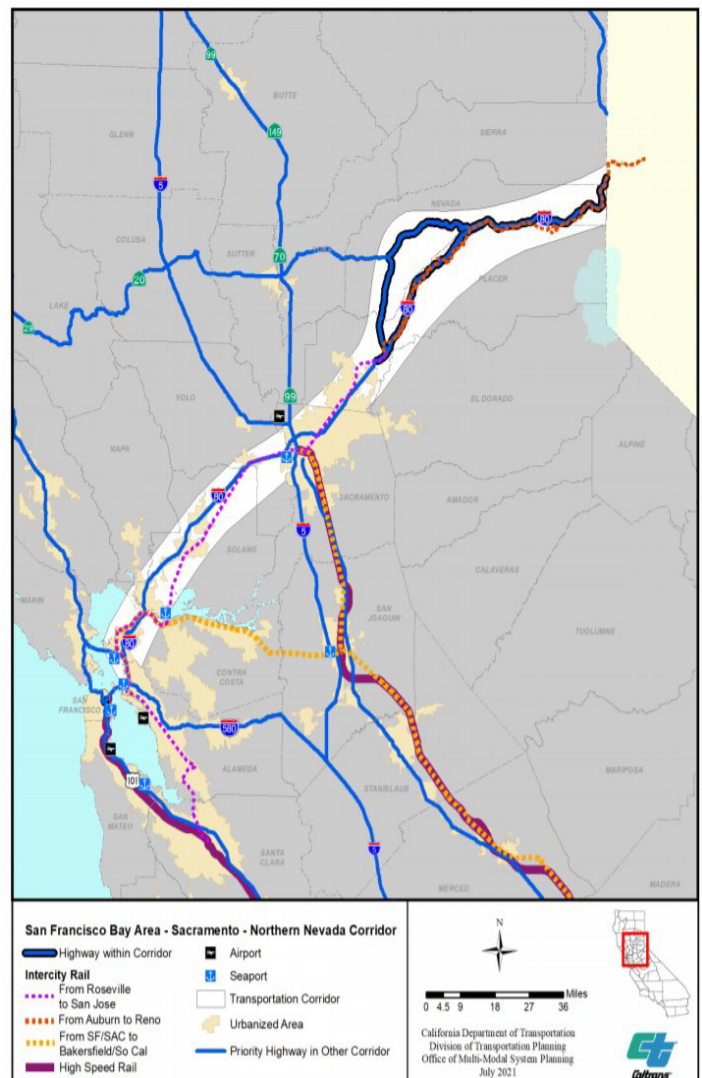


Figure 4.5 Bay Area-Sacramento-Northern Nevada Interregional Corridor

California Freight Mobility Plan, 2020

The California Freight Mobility Plan (CFMP) vision provides a common platform for informing and guiding the development of freight transportation policy, programs, and project prioritization across all public and private sectors of California’s freight system. Freight sustainability in the CFMP comes from three perspectives: economic vitality, environmental stewardship, and social equity. The goals included in the CFMP are, multimodal mobility, economic prosperity, environmental stewardship, healthy communities, safety and resiliency, asset management, as well as connectivity and accessibility.

Inventory of Parallel Local Streets:

Local parallel routes help accommodate short trips along the SR 49 corridor. They provide access to SR 49 and to multimodal facilities such as transportation centers and park-and-ride lots within the corridor. They also improve the response times of emergency service vehicles, and reducing the duration of corridor congestion caused by accidents. Table 4.5 shows major parallel routes located along the corridor.

Table 4.5 Corridor Parallel Roadways

Roadway	City	To	From	Crosses Corridor
Bell Road	Auburn	I-80	SR 49	Yes
Dry Creek Road	Auburn	I-80	SR 49	Yes
I-80	Auburn/Colfax	SR 174	SR 49	No
La Barr Meadows Road	Grass Valley	SR 49	South Auburn Street	No
SR 174	Grass Valley	I-80	SR 49	No

Travel Demand Management:

Caltrans District 3 promotes TDM strategies into our projects and local development reviews when feasible. This includes promoting and designing facilities to include alternative modes of transportation to promote mode shift. Caltrans continues to partner with our state, regional, and local partners to provide project packages that address various modes of transportation.

Travel Demand Management (TDM) is a set of projects or strategies that try to reduce travel demand by shifting the demand to other modes of transportation. Some TDM strategies may include parking management programs, subsidized public transit passes, carpool incentives, and alternative mode of travel incentives.

The following are TDM examples along the SR 49 Corridor:

The SACOG 2020 MTP/SCS lists transit options, ridesharing, transit incentive programs, pedestrian/bikeway



facilities, park and ride lots, telecommuting, compressed work weeks, and mixed land use as effective TDM strategies that they are working to implement in the region.

SACOG notes that better travel times, less congestion, improved air quality, and lower greenhouse gas emissions all depend on a variety of mobility options and programs becoming more widely available across all types of communities in the region. These mobility options and programs may include bike or car share, various ride-hailing options like Uber, vanpools, microtransit, or more traditional services like bus and light rail. A modernized public transit system with reliable bus and rail service strategy. For example, bus and light rail services that offer fast, reliable, and safe travel, with connections to new mobility services, can provide more travel choices to residents throughout the region.

Within the SACOG 2020 MTP/SCS, TDM is specifically supported in Policy 5 where it states, “support innovative education and transportation demand management programs covering all parts of the region, to offer a variety of alternatives to driving alone.”

ITS elements and Broadband considerations:

Caltrans pursues Intelligent Transportation System (ITS) and broadband projects to expand our ability to communicate with drivers, manage our system, and monitor accidents or collisions in real time. The ability for Caltrans to react to different scenarios is assist on ITS and broadband projects. These efforts also require coordination with local agencies to address reoccurring or non-reoccurring congestion and incidents. Similar to cities and counties who manage their network through their traffic management center, Caltrans District 3 has its own traffic management center that is shared with CHP. This partnership allows Caltrans and CHP to address incidents efficiently.

ITS combines effective and modern communication technologies with the transportation system. The intent of the ITS elements is to increase the safety and efficiency of a given transportation network through communication. Examples of ITS elements include ramp metering, closed circuit television (CCTV), adaptable roadway message signs, and traveler information systems. Along the SR 49 Corridor, SACOG’s 2020 MTP/SCS lists three policies/actions to support the overall goal of promoting the use of ITS technologies in the planning and programming process. Those three policies are as follows:

1. Encourage the use of ITS technologies in the project development process.
2. Encourage the state to provide resources to manage and update ITS planning in the north state.
3. Assist local agencies in evaluating the impacts of TDM strategies.

SACOG’s 511 regional travel information program is a prime example of a TDM strategy. SACOG’s 511 and rideshare programs cost less than \$2 million per year region-wide to support carpooling, transit ridership, and bicycling in all corridors within the SACOG region. Travelers may call the 511-telephone number or visit the website to obtain real-time traffic updates and direct feeds from traffic cameras and changeable message signs, as well as local and regional transit and intercity rail information. The website and phone system allow people to offer or locate shared-ride carpools or vanpools. SACOG’s 511 website (<https://www.sacog.org/sacregion511org>) also has tools for cyclists, including those for planning a bike trip or making your business more bicycle-friendly.



Caltrans Park and Ride Lots

The Caltrans Park-and-Ride (P&R) Program facilitates access to transit and ride-sharing services along free-way corridors with the goal of reducing congestion and VMT. A mode shift away from single-occupancy vehicles (SOV) helps reduce congestion, improves air quality, and assists Caltrans in meeting its sustainability goals. Caltrans is focusing on collaboration with local jurisdictions, regional, and transit agencies to develop partnership opportunities to enhance, expand, and/or construct P&R facilities. A listing of the lots along the SR 49 corridor is identified in the table below. The Park & Ride facilities are based off data as of 2022.

Table 4.6 Corridor Park & Ride Facilities

City	Route	Park & Ride Lot	Address	# of Spaces	Corridor Segment
Auburn	SR 49	Auburn Con-heim Station	10901 Blocker Drive	105	1
Auburn	SR 49	Atwood Drive	Drive-In Way and Atwood Drive	22	1
Auburn	I-80	Bell Road	Bell Road and Bowman Road	22	1
Auburn	I-80	Bowman	Lincoln Way and Bowman Road	33	1
Lake of the Pines	SR 49	Cross Road Church	Wolf/Combie Road and SR 49	8	2 & 3
Grass Valley	SR 20/49/174	Grass Valley	S. Auburn Street and SR 20/174	52	4

Zero-Emission Vehicles Stations:

ZEVs offer residents and visitor's new transportation choices. ZEVs improve air quality by reducing local pollution and greenhouse gas emissions while also saving consumers money. California cities and towns are already home to tens of thousands of plug-in electric vehicles, and the state currently represents 30 to 40 percent of the national market.

ZEV charging stations come in many shapes, sizes, and brands and are built and sold by a range of companies. Charging equipment is often referred to by industry experts as Electric Vehicle Supply Equipment (EVSE). ZEV charging is broadly separated into levels based on the amount of electricity that is transferred to a vehicle battery in a certain period. Generally, there are three charging categories used to describe ZEV charging:

- AC Level 1 Charging: The most basic and common form of vehicle charging, Level 1 charging transfers 120 volts (1.4–1.9 kW) of electricity from the electrical grid to vehicle batteries.
- AC Level 2 Charging: This level of charging transfers 240 volts (up to 19.2 kW) of electricity to vehicles, and therefore, can recharge vehicles faster than Level 1.
- DC Fast Charging: This level of charging provides the fastest battery recharge currently available for PEVs. Fast charging transfers a high voltage (typically 400-500 volts or 32– 100 kW, depending on the electrical current) of direct current (DC) to vehicle batteries.

The following ZEV facilities in the SR 49 Corridor are based off data as of 2022 and are listed in Table 4.7.

Table 4.7 Corridor Zero Emission Facilities

Business Name	Address	# of Stations	Types of Plugs	Corridor Segment
Auburn City Parking Lot	165 Magnolia Ave, Auburn	2	CCS/SAE (1), CHAdeMO (1)	1
Auburn City Hall	1225 Lincoln Way, Auburn	1	J-1772	1
Old Republic Title	200 Auburn Folsom Rd., Auburn	2	J-1772 (2)	1
Holiday Inn	120 Grass Valley Hwy, Auburn	5	CCS/SAE (2), CHAdeMO (2), J-1772 (1)	1
Save Mart	386 Elm Ave, Auburn	4	CCS/SAE (2), CHAdeMO (2),	1
Auburn Conheim Station	11437 Blocker Street, Auburn	1	J-1772 (1)	1
Creekside Business Park	11641 Blocker Drive, Auburn	5	J-1772 (5)	1

Table 4.7 Corridor Zero Emission Facilities, Con't.

Business Name	Address	# of Stations	Types of Plugs	Corridor Segment
Gold Country Chevrolet	570 Grass Valley Hwy, Auburn	2	J-1772 (1), Wall (1)	1
Placer County Community Development	3091 County Center Dr., Auburn	1	J-1772 (1)	1
Auburn Target	2700 Bell Road, Auburn	5	CCS/SAE (2), CHAdeMO (2), J-1772 (1)	1
Westview Healthcare	12225 Shale Ridge Rd., Auburn	1	NEMA 14-50 (1)	1
CHP Visitor Parking	11363 McCourtney Rd., Grass Valley	2	J-1772 (2)	4
Courtyard Suites	210 N. Auburn St., Grass Valley	3	J-1772 (1), Tesla (2)	4
BriarPatch Food Co-Op	290 Sierra College Dr., Grass Valley	5	CCS/SAE (2), CHAdeMO (2), J-1772 (1)	4
Sierra College	250 Sierra College Dr., Grass Valley	3	J-1772 (3)	4
Nevada Station	249 Nevada Street, Auburn	2	J-1772 (2)	1
Placer County Personnel Center	145 Fulweiler Ave., Auburn	2	J-1772 (1), Wall (1)	1

Chapter Five: Corridor Performance

Corridor Performance

Constrained Planned and Programmed Projects and Strategies

This chapter outlines the planned, programmed, and conceptual projects proposed in the CMCP for the four segments analyzed. These projects were identified through a collaborative approach with local, regional, and tribal partners that included input from the public. Projects include a variety of different modes and strategies, some of which include vehicular, multimodal, transit, rail, freight, and ramp metering.

Each project is listed as either a constrained or unconstrained project based on the following criteria:

- A Constrained improvement or action is a project in a long-term fiscally constrained plan such as an approved Regional Transportation or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure. It can also be a project listed in a near-term programming document identifying funding amounts by year, such as the STIP or the SHOPP.
- An Unconstrained improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a section of a fiscally constrained plan and is not currently programmed. Conceptual projects are all fiscally unconstrained projects derived from documents such as local and regional General Plans, and Caltrans System Planning Documents.

The segment maps provide information on the segment location and locations of improvement projects (planned, programmed, and conceptual). The project identification numbers correspond to the Project Table under the Segment Summary Information section.

Segments – State Highway System

SR 49 is divided into four segments and outlines projects within each segment. For the purpose of the analysis, the travel demand model analyzed SR 49 in two segments, one for each county. The projects and analysis in this section are those determined to be likely for construction or pursuant of funding within this document's twenty-year horizon in coordination with partner transportation agencies.

Segment 1: Placer County

Segment 1 begins in Placer County on SR 49 (PM 3.208) at the junction of I-80 and ends at the Dry Creek Road intersection (PM 7.427), north of the City of Auburn. Land use in this segment is urban to suburban in design before leading into the more rural setting of the corridor. Table 5.1 includes the projects for Segment 1.

Segment 2: Placer and Nevada Counties

Segment 2 begins at Dry Creek Road in Placer County (PM 7.427) and ends at Wolf/Combie Road (PM 2.194) in Nevada County. Land use in this segment is rural with agricultural operations and many small areas numbering under 5,000 in population. Table 5.1 includes the projects in Segment 2.

Figure 5.1 Segment 1 Map

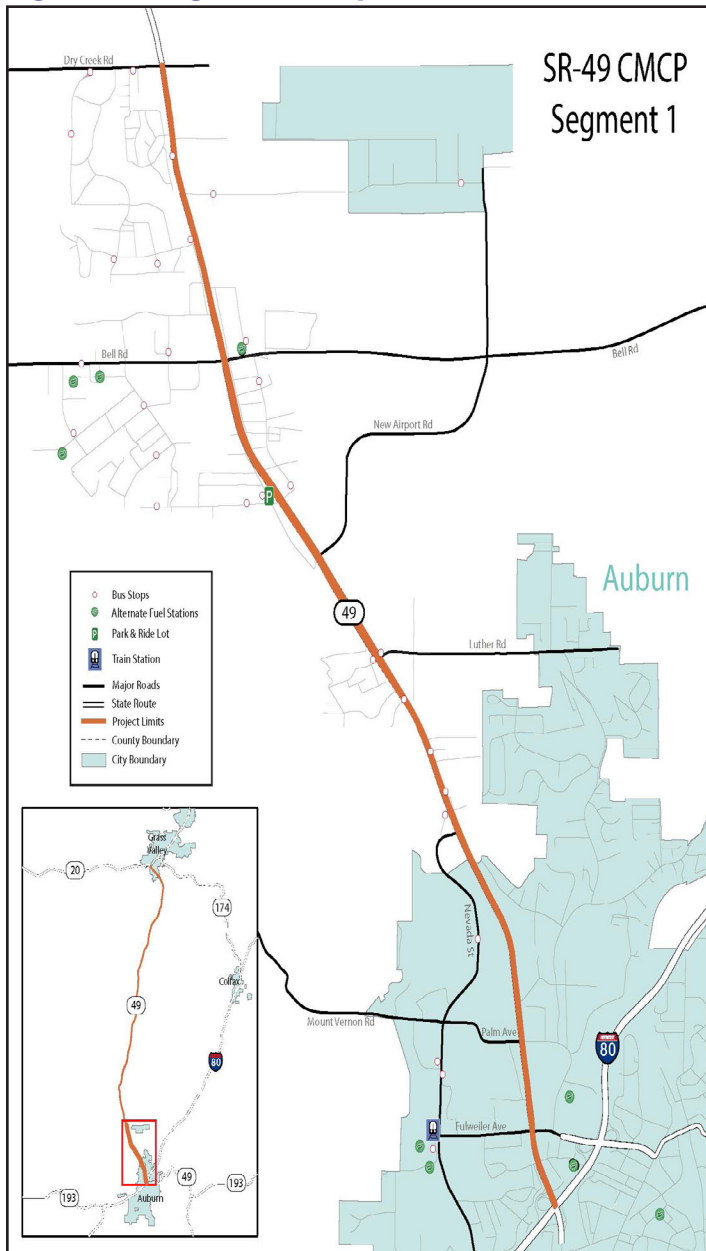


Figure 5.2 Segment 2 Map

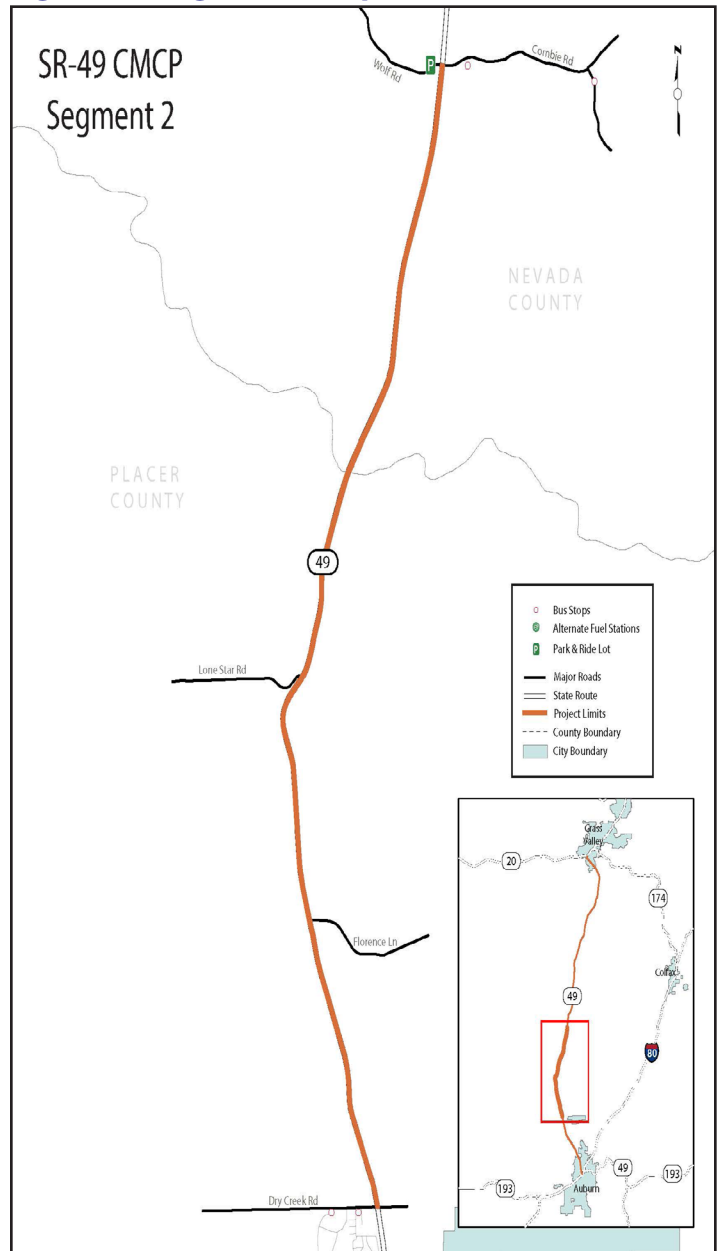


Table 5.1 Segments 1 and 2 Project List

Segment	Constrained/ Unconstrained	Project Name	Project Description	Mode	County	Route
1	Constrained	Eastbound I-80 at Auburn Ravine Road. Install ramp meters.	Eastbound I-80 at Auburn Ravine Road. Install ramp meters.	Highway	PLA	80
1	Constrained	Eastbound I-80 at Elm Avenue. Install ramp meters.	Eastbound I-80 at Elm Avenue. Install ramp meters.	Highway	PLA	80
1	Constrained	Eastbound I-80 at the Bowman undercrossing. Install ramp meters.	Eastbound I-80 at the Bowman undercrossing. Install ramp meters.	Highway	PLA	80
1	Constrained	Bell Rd/I-80 Interchange.	Construct operational improvements to interchange.	Highway	PLA	80
1	Constrained	Willow Creek/SR 49 intersection. Dual left turn lanes (NB).	Construct dual left turn lanes (NB).	Highway	PLA	49
1	Constrained	Bell Road/SR 49 intersection. NB Right Turn lanes.	Construct NB Right Turn lanes.	Highway	PLA	49
1	Constrained	Kemper Rd channelization to improve SR49 operations.	Kemper Rd channelization to improve SR49 operations.	Highway	PLA	49
1	Constrained	SR 49 Pavement Rehab	From SR 49/I-80 interchange to Dry Creek Road intersection.	Highway	PLA	49
1	Constrained	Highway 49 Sidewalk Gap Closure	From I-80 to Dry Creek Rd, construct ADA curbs and sidewalks.	Highway	PLA	49
1	Constrained	Quartz Drive Extension	Extend Quartz Drive from Route 49 to Bell Road.	Highway	PLA	49

Table 5.1 Segments 1 and 2 Project List Con't.

Segment	Constrained/ Unconstrained	Project Name	Project Description	Mode	County	Route
1	Constrained	Education Street	Construct 2 lane roadway and signal modifications - east of SR 49 to Quartz Drive	Highway	PLA	49
1	Constrained	Richardson Drive	Construct 2 lane roadway - connection between Dry Creek Road and Bell Road	Highway	PLA	49
1	Constrained	SR 49 Widening A	Widen from 4 lanes to 6 lanes Bell Road to Locksley Lane	Highway	PLA	49
1	Constrained	SR 49 Widening B	Widen from 4 lanes to 6 lanes Locksley Lane to Dry Creek Road	Highway	PLA	49
1	Constrained	SR 49 Widening C	Widen from 4 lanes to 6 lanes from Luther Road to Nevada Street.	Highway	PLA	49
2	Constrained	49 Corridor - Roundabouts/ Median Barrier	Construct median barrier and roundabouts between Lorenson and Lonestar Roads	Highway	PLA	49
2	Constrained	Dry Creek Rd/ SR 49 Intersction.	Construct dual left turn lanes (NB).	Highway	PLA	49
2	Constrained	SR 49 at various locations NB and SB from Auburn to Grass Valley	Install Traveler Information System/Vehicle Detection System	Highway	NEV	49
1,2	Constrained	System Management/Traffic Operations System on SR49	Operational improvements: CMS, Highway Radio Signal Synchronization	Highway	PLA	49
1,2	Constrained	SR49 Signalizations/ Improvements	Signalizations improvements along SR 49.	Highway	PLA	49

Segment 3: Nevada County

Segment 3 begins at the SR 49 and Wolf/Combie Road intersection in Nevada County (PM 2.194) and ends at La Barr Meadows Road (PM R10.553). Land use in this area is rural in nature with agricultural activities taking place and small communities numbering under 5,000 in population. Projects located in Segment 3 are located in Table 5.2.

Segment 4 : Nevada County

Segment 4 begins in Nevada County on SR 49 (PM R10.55.3) at La Barr Meadows Road and continues north to the SR 20 junction in the City of Grass Valley (PM R14.475). Land uses in this area are semi-rural to suburban in nature with light commercial and residential developments. Table 5.2 lists the projects located in Segment 4.

Figure 5.3 Segment 3 Map

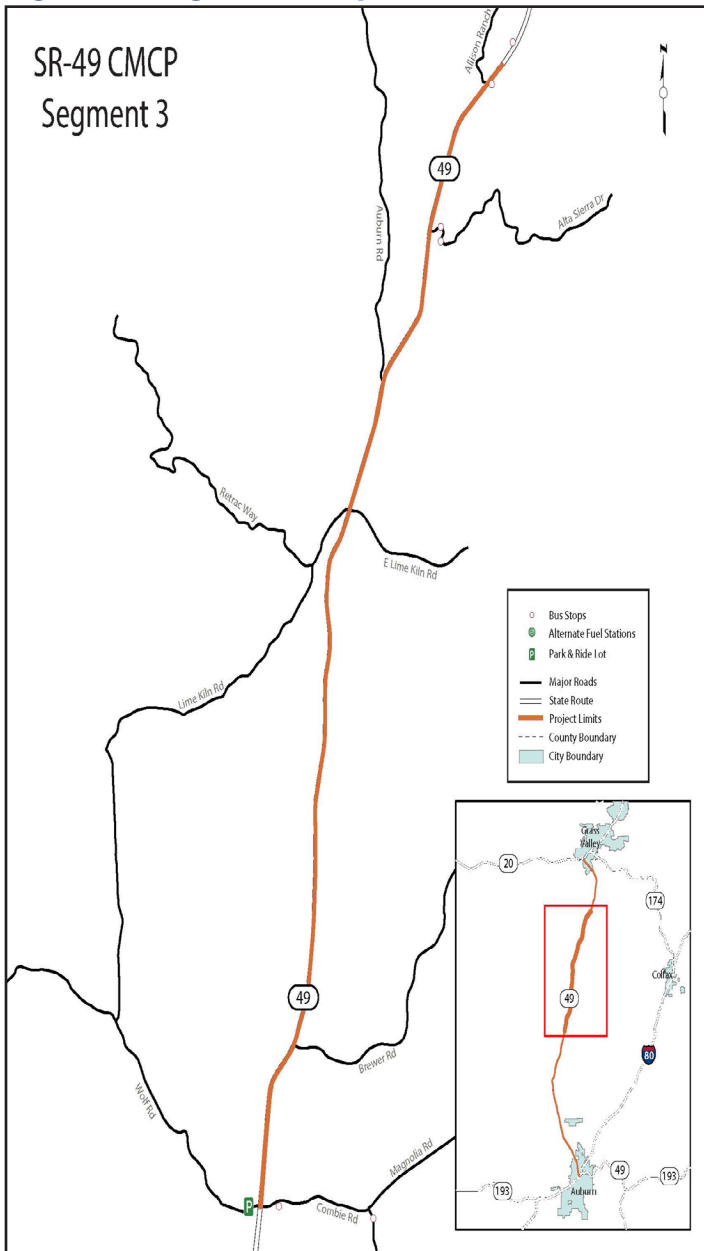


Figure 5.4 Segment 4 Map

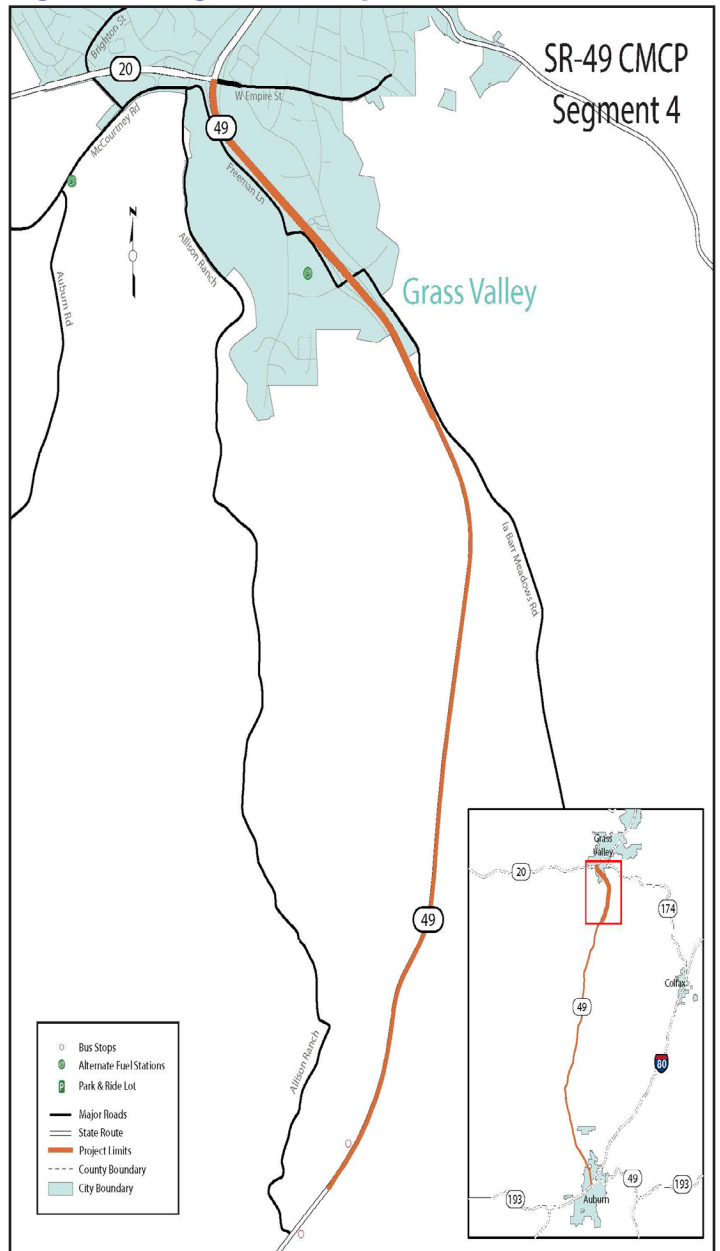


Table 5.2 Segments 3 and 4 Project List

Segment	Constrained/ Unconstrained	Project Name	Project Description	Mode	County	Route
3	Unconstrained	SR 49 south of Alta Sierra Drive to South of Kenwood Drive	Second SB through lane with median and shoulder widening.	Highway/ Active	NEV	49
3	Unconstrained	SR 49 from North of Lime Kiln Road to South of Alta Sierra Drive	SR 49 Widen to 5 lanes, shoulders; Construct frontage roads	Highway/ Active	NEV	49
3	Unconstrained	SR 49 North of Cherry Creek Road to South of Lime Kiln Road	Lengthen two SB lanes; eliminate southerly connection and improve northerly connection with Cherry Creek Road intersection	Highway	NEV	49
3	Constrained	SR 49 at Cerri-to Road	Construct NB right turn lane with sight-distance wedge, and restripe median as a two-lane left turn lane to the south of the intersection	Highway	NEV	49
3	Unconstrained	SR 49 from Cameo Drive to Holcomb/Cherry Creek Road	Complete widening to 5 lanes, shoulders, eliminate Cameo Drive Intersection	Highway/ Active	NEV	49
3	Constrained	SR 49 at Brewer Road and Atla Sierra Drive	Install safety lighting and 4 radar feedback signs	Highway	NEV	49
3	Unconstrained	SR 49 at Meadowbrook Court	Install lighting, acceleration/deceleration lanes	Highway	NEV	49

Table 5.2 Segments 3 and 4 Project List Con't.

Segment	Constrained/ Unconstrained	Project Name	Project Description	Mode	County	Route
4	Constrained	SR 49 Corridor Improvement Project Phase 1	Construction of NB Truck Climbing Lane, 16' continuous two-way left-turn-lane, shoulder widening, right turn deceleration/acceleration lanes SB at Crestview Drive, Smith Road, Bethel Church Way, and Wellswood Way	Highway/ Active	NEV	49
4	Unconstrained	SR 49 Corridor Improvement Project Phase 2	Construction of SB Truck Climbing Lane	Highway	NEV	49
4	Unconstrained	SR 49 Corridor Improvement Project Phase 3	Construction of 22' median with safety barrier (Type 60 M) construction of two at-grade intersections and frontage roads	Highway	NEV	49
3,4	Unconstrained	SR 49 Class II and III Bike Lanes	Shoulder improvements SR 49 from Placer County line to McKnight Way Interchange	Active	NEV	49
3,4	Unconstrained	SR 49	Various locations - enhance existing Park-n-Rides, explore opportunities for new Park-n-Ride lots	Highway	NEV	49

Existing Conditions (Baseline)

When discussing the performance of the SR 49 corridor, we assessed the following performance measures. First, as a baseline, the plan looks at the year in which the last full data run was extracted. There are two Regional Transportation Planning Agencies (RTPAs) that cover the SR 49 corridor in the study area: NCTC and PCTPA. PCTPA is part of the Sacramento Area Council of Governments (SACOG) which is the MPO for a 6-county area and the agency who provides modeling coverage for PCTPA; whereas NCTC is a standalone RTPA. Both NCTC and PCTPA/SACOG baseline years are from 2018. Segments 1 and 2 are located within PCTPA/SACOG's jurisdiction. The base year conditions are the status of the corridor in 2018 which is the benchmark of analysis for future conditions in the year 2040. The base year model also consists of the land use and travel demand models from 2018. Data from 2018 was used because this was the last time full data was captured prior to the pandemic shutdown in 2020.

It was agreed upon by the TAC and Stakeholders that a planning level analysis for the modeling process would be conducted by the Caltrans District 3 Travel Forecasting and Modeling office.

For the SR 49 CMCP, the future build demand modeling is done by including all the projects in the project list within the 2040 horizon year. Both RTPAs have different models: NCTC uses the TransCAD model while SACOG's uses SACSIM.

Once the demand model runs were completed, the following performance metrics of VMT, vehicle hours traveled (VHT), and vehicle hours of delay (VHD) were extracted and analyzed for the NCTC and SACOG models for both northbound (NB) and southbound (SB) directions.

VMT is the summary of all miles traveled in the corridor in their respective segments. It uses an algorithm of the total vehicles using data sensors located in the pavement and other data acquisition sources such as the Waze application. It then calculates the numbers based on that algorithm. VHT is the summary of how long it takes the vehicles to travel in the corridor using the same data points. VHT can be calculated by dividing VMT by the average speed of the corridor. VHD is the summary of how many hours of delay of all vehicles in the network.

The baseline data for Nevada County (Table 5.3) and Placer County (Table 5.4) was taken in 2018. The data tables look at three periods: daily, AM peak period traffic (7:00-9:00 a.m.) and PM peak period traffic (4:00-6:00 p.m.). The data also looks at each direction, in this case, northbound and southbound, with respect to VMT, VHT, and VHD.

The analysis looks at the entire segment of SR 49 for both counties. Within Nevada County it is from county line to the SR 20 junction in Grass Valley. Within Placer County, the analysis begins at the I-80 junction in Auburn and ends at the county line at Bear River.

Table 5.3 2018 NCTC Baseline Performance Metrics

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Nevada County	Day	84,197	3,900	443	74,860	1,886	1,181
	AM Peak	28,955	1,400	79	30,730	795	954
	PM Peak	55,242	2,500	364	44,130	1,091	227

Table 5.4 2018 PCTPA Baseline Performance Metrics

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Placer County	Day	148,724	4,455	1,202	148,259	4,171	926
	AM Peak	26,883	713	114	47,628	1,579	548
	PM Peak	54,197	2,218	1,050	38,908	1,161	307

Table 5.5 2040 NCTC No Build Performance Outputs

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Nevada County	Day	103,916	2,617	577	90,270	2,397	611
	AM Peak	35,007	801	111	37,477	1,020	299
	PM Peak	68,909	1,816	466	52,793	1,377	312

Table 5.6 2040 NCTC Build Performance Outputs

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Nevada County	Day	104,350	2,633	585	89,949	2,378	597
	AM Peak	35,064	802	111	37,073	1,000	286
	PM Peak	69,286	1,831	474	52,876	1,378	311

Table 5.7 2040 PCTPA No Build Performance Outputs

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Nevada County	Day	103,916	2,617	577	90,270	2,397	611
	AM Peak	35,007	801	111	37,477	1,020	299
	PM Peak	68,909	1,816	466	52,793	1,377	312

Table 5.8 2040 PCTPA Build Performance Outputs

Segment	Period	NB VMT	NB VHT	NB VHD	SB VMT	SB VHT	SB VHD
SR 49 Nevada County	Day	104,350	2,633	585	89,949	2,378	597
	AM Peak	35,064	802	111	37,073	1,000	286
	PM Peak	69,286	1,831	474	52,876	1,378	311

Proposed Projects

As part of the project analysis section of the CMCP, Caltrans asked partners from the TAC and Stakeholders groups to submit a list of potential projects (Tables 5.1 and 5.2) for analysis in the CMCP. The CMCP targeted priority projects that could alleviate congestion and reduce VMT/GHG, consistent with state and regional plans and goals, for future consideration of local, regional, and state funding programs such as the SCCP. The list of projects included in the CMCP were agreed upon by our TAC and Stakeholder groups.

Model Forecasting

Upon consultation with our TAC and Stakeholder groups, it was agreed that the Caltrans team would complete a planning level analysis through a Travel Demand Model for the 2040 Build (with all the constrained projects) and No Build scenarios. The the results of the analysis are listed in Tables 5.5 through 5.8.

Corridor Analysis Results-All Scenarios

The corridor is analyzed for two scenarios below. The future scenarios are divided into the future no-build and future build models. Further descriptions of the scenarios are as following:

SR 49 Future No Build Scenario - 2040. This scenario is identical to the network characteristics of the Current Baseline Scenario (2018), but factors in growth in future travel demand due to growth in population and employment throughout the region. The future travel demand was developed from the SACOG and NCTC county travel demand models for year 2040. According to the model, the total VMT for year 2040 is 24% higher than in the baseline year of 2018. The future No Build scenario represents the future scenario with added travel demand, but without considering any transportation system improvements dedicated to mitigating the anticipated growth in travel.

SR 49 Future Build Scenario - 2040. The Future Build scenario along SR 49 has a similar model network as current baseline conditions, but with added future traffic demand due to corridor growth. It does consider the improvements to be made on SR 49 or intersections along the corridor. The SACSIM and NCTC TransCAD travel demand models were used to determine the likely future increases in trips and travel demand along SR 49. The growth rate applied along SR 49 is similar to the overall Study Area growth rate of 24% between the baseline year of 2018 and the future horizon study year of 2040.



The projects which are planned for the corridor plan emphasizes on reducing VMT, improving operations, and promoting infrastructure for non-motorized modes. The projects planned for the corridor include safety enhancements, operational improvements and VMT mitigation measures. The VMT mitigation measures include improving the transit services and bike lanes in specific segments of the corridor. The main source of transportation along SR 49 is by private mode of transport, which is mainly addressed in the 2040 project list. Reducing delays and increasing the speeds will benefit this mode while having a positive impact on reducing GHG and emissions.

The 2040 land use projections were applied to the travel demand model for this scenario which causes a traffic growth rate of 25% when compared to the 2018 baseline scenario.

Certain segments of the future build scenarios show improvements including increases in speed and reduction in total delay and VMT. This can be associated to the capacity increase and operational improvements in that segment. Tables 5.9 and 5.10 display the comparison of performance metrics for the AM and PM peak periods between the future no-build and build models. The results of the comparison show that in Nevada County slight increases in all three metrics in the build scenario. The desired outputs can be related to the projects implemented in segment 4, however, it does not fully extend to all of the routes in the county due to the highway not adding additional capacity. The segment in Placer County does not have VMT reductions during the peak periods or daily traffic analysis, however, it shows reductions in VHT and VHD throughout the daily and peak periods overall.

Table 5.9 2040 SR 49 Northbound Build/No-Build Comparison

Segment	SR 49 Northbound								
	VMT		VHT		VHD		Change in VMT from No-Build to Build (%)	Change in VHT from No-Build to Build (%)	Change in VHD from No-Build to Build (%)
	2040 No Build	2040 Build	2040 No Build	2040 Build	2040 No Build	2040 Build	2040 No Build to Build	2040 No Build to Build	2040 No Build to Build
Nevada County Daily	103,916	104,350	2,617	2,633	577	585	0.4	0.6	1.3
Nevada County AM Peak	35,007	35,064	801	802	111	111	0.1	0.1	0.0
Nevada County PM Peak	68,909	69,286	1,816	1,831	466	474	0.5	0.8	1.7
Placer County Daily	164,897	174,300	4,459	4,316	1,056	956	5.7	-3.3	-9.5
Placer County AM Peak	16,218	16,218	417	399	64	63	0.0	-4.4	-1.6
Placer County PM Peak	32,490	35,235	785	777	69	76	8.4	-1.1	10.1

Table 5.10 2040 SR 49 Southbound Build/No-Build Comparison

Segment	SR 49 Southbound								
	VMT		VHT		VHD		Change in VMT from No-Build to Build (%)	Change in VHT from No-Build to Build (%)	Change in VHD from No-Build to Build (%)
	2040 No Build	2040 Build	2040 No Build	2040 Build	2040 No Build	2040 Build	2040 No Build to Build	2040 No Build to Build	2040 No Build to Build
Nevada County Daily	90,270	89,949	2,397	2,378	611	597	-0.4	-0.8	-2.3
Nevada County AM Peak	37,477	37,073	1,020	1,000	299	286	-1.1	-2.0	-4.4
Nevada County PM Peak	52,793	52,876	1,377	1,378	312	311	0.1	0.0	-0.4
Placer County Daily	163,813	173,001	5,728	5,013	1,330	1,215	5.6	-12.5	-8.7
Placer County AM Peak	27,221	33,159	784	790	197	152	21.8	0.7	-23.9
Placer County PM Peak	23,753	23,752	688	686	154	118	-0.1	-0.3	-24.4

Chapter Six: Environmental Concerns and Sustainability

Environmental / Sustainability / Climate Change

California has been on the forefront of climate change policy, planning, and research across the nation. With rising GHG emissions, climate and extreme weather condition impacts California's population and its infrastructure. Caltrans recognizes that outside of its own efforts, there are regional efforts to mitigate the effects of climate change. Coordination with local governments and stakeholders is crucial to ensure that climate analyses and adaptations are developed in partnership. Regional coordination will be especially important to combat stressors like rising temperature, volatile precipitation levels, and an increase in wildfire severity. Majority of the information in this chapter comes from the Caltrans Climate Change Vulnerability Assessment Technical Report and Map. This report was produced to provide an in-depth overview on the potential implications of climate change to Caltrans assets, and how climate data can be applied in decision-making.

Climate Change Considerations

The purpose of the climate change consideration scan is to conduct a high-level identification of potential environmental factors that may require future analysis in the project development process. This information may not represent all environmental considerations that exist within the corridor vicinity. The factors are categorized based on a scale of Low-Medium-High probability of an environmental issue and determination was conducted by Caltrans District 3 Transportation Planning staff. The table below (Table 6.1) shows the environmental considerations within the SR 49 Corridor based on the Caltrans District 3 Climate Change Vulnerability Assessment Map and Technical Report.

Table 6.1 SR 49 Corridor Concerns

SR 49 Corridor Climate Change Concerns	Priority
Sea Level Rise	Low
Sea Level Rise-Storm Surge	Low
Exposed Levee	Low
Wildfire Exposure	High

Wildfire Exposure

The wildfire vulnerability data is determined by looking at scenarios otherwise known as Representative Concentration Pathways (RCP). A RCP is a GHG concentration trajectory, deemed feasible by the Intergovernmental Panel on Climate Change (IPCC), based on the volume of GHG's released in the coming decades. The number following each RCP scenario represents the total Watts each square meter of Earth surface receives in the given scenario. The Caltrans District 3 Climate Change Vulnerability Assessment Map looks at RCP 4.5 and RCP 8.5. RCP 4.5 is an intermediate scenario where global GHG emissions peak in 2040 and then begin to decline around 2045. RCP 8.5 is a "worst case" scenario where GHG emissions continue to rise throughout the 21st century. The Caltrans District 3 Climate Change Vulnerability Assessment Map additionally factors in three time frames for wildfire exposure. These time frames include 2010-2039, 2040-2069, and 2070-2099.

For the first time frame, 2010-2039, both RCP 4.5 and RCP 8.5 predict that much of the central portion of the SR 49 Corridor will be at "high" risk for wildfire exposure. The northern portion of the corridor, from Alta Sierra Drive to Grass Valley, is classified as "moderate" for wildfire exposure. Finally, the southern portion of the corridor, near Auburn and North Auburn, has portions of SR 49 that are classified as "high" while other portions of the corridor don't have any classification. When an area does not have a classification of either "moderate," "high," or "very high" it means the wildfire exposure data for that area was below the vulnerability criteria cutoff.

The second time frame, 2040-2069, is where RCP 4.5 and RCP 8.5 predictions begin to differ. RCP 4.5 predicts that much of the SR 49 Corridor will be elevated to "high" for wildfire exposure with only a portion of the northern part of the corridor, between Smith Road and the McKnight overpass, remaining as "moderate". Once again, the southern portion of the corridor, near Auburn and North Auburn, has portions of SR 49 that are classified as "high" while other portions of the corridor don't have any classification. RCP 8.5 has the entire corridor, except for Auburn and North Auburn, as "high." Auburn and North Auburn in this scenario are not classified.

The third and final time frame, 2070-2099, notes the greatest difference between RCP 4.5 and RCP 8.5. RCP 4.5 in this time frame classifies the entire corridor, apart from Auburn and North Auburn, as "high." RCP 8.5 in this time frame elevates a two-mile section of SR 49 around Alta Sierra Road from "high" to "very high" and does the same for a mile segment of SR 49 south of the McKnight overpass.

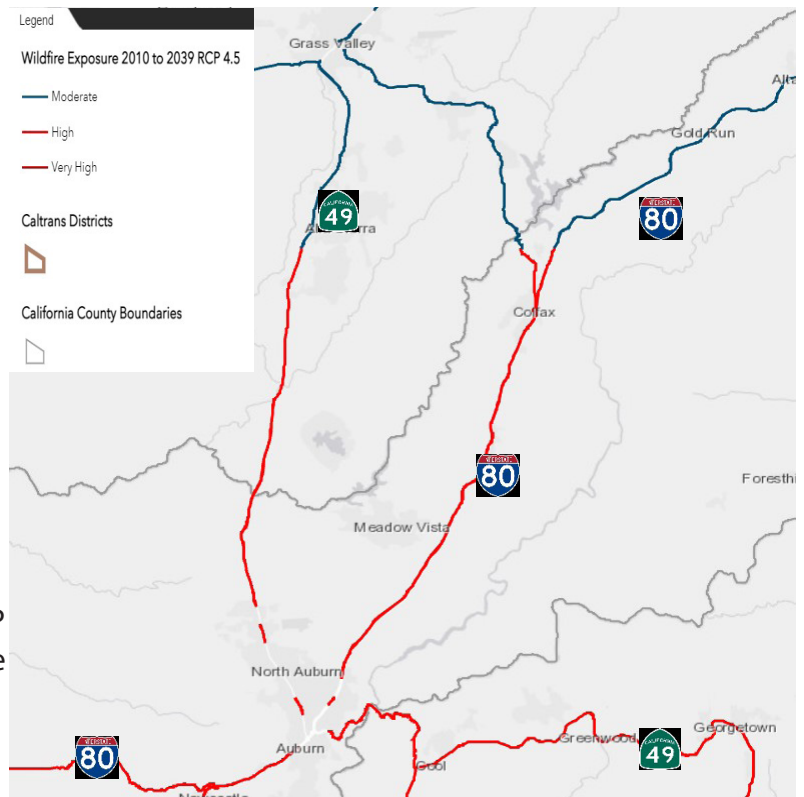


Figure 6.1 SR 49 2010-2039 RCP Wildfire Risk Map

LEVEL OF WILDFIRE CONCERN

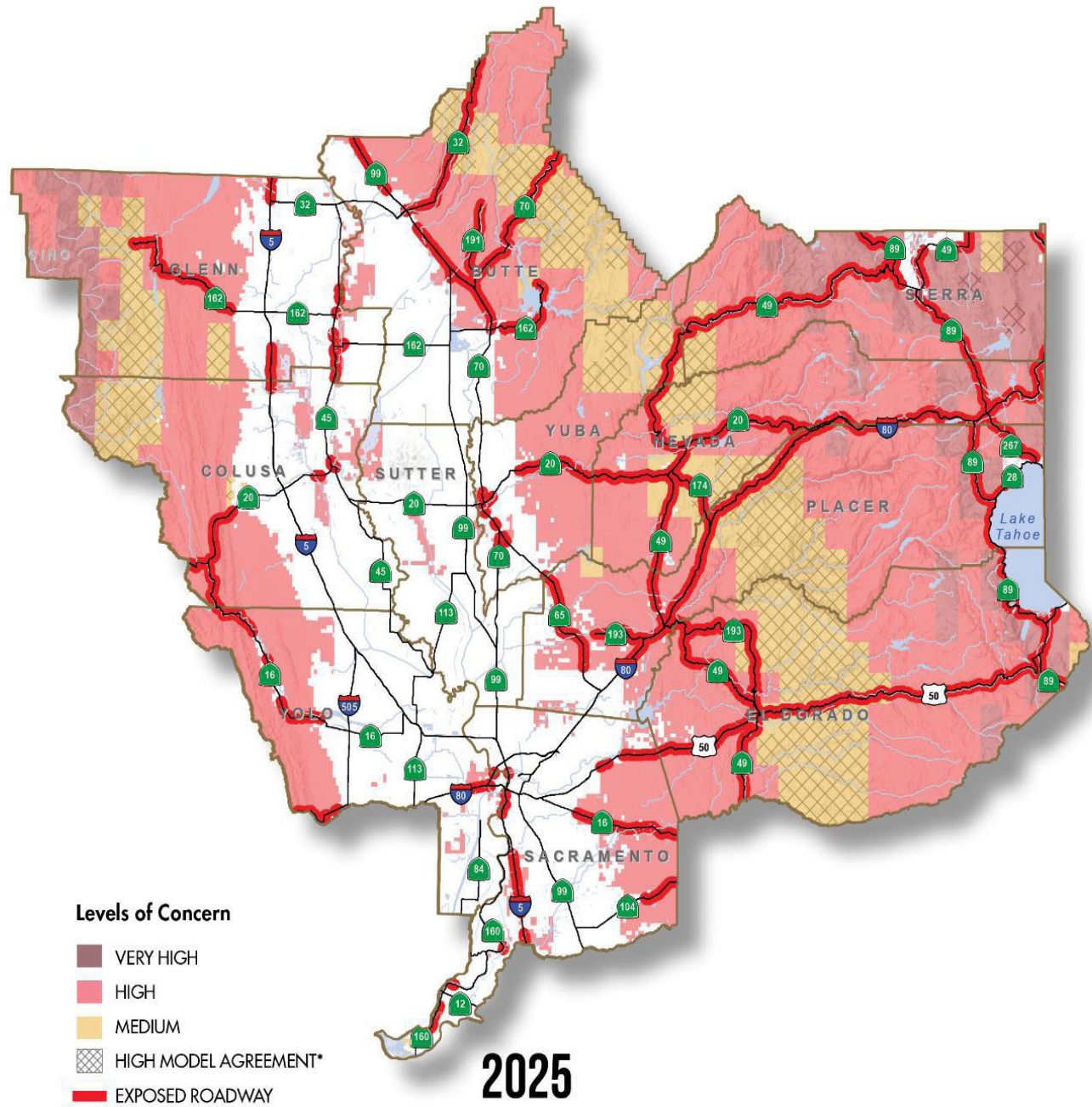


Figure 6.2 Caltrans District 3 Wildfire Risk Map

Habitat and Biological Resources

Habitats along SR 49 change as you move from lower elevations of about 1,250 feet above sea level in Auburn to the upper foothill's region in Grass Valley of approximately 2500 feet above sea level. North of the developed portion of Auburn, between I-80 and Dry Creek Road, the surrounding habitat is Blue Oak-Foothill Pine Woodland. This location is typified by a dominance of Blue Oaks and Foothill Pines, with understories consisting of chaparral species and annual grasslands depending on the local topography. Moving north past the Bear River into Nevada County, the habitat slowly transitions to Mixed Hardwood Conifer types, where some Blue Oaks are replaced. Additional pine species such as Ponderosa Pine and Incense Cedar make up the dominant tree canopy.

This region covers the Upper Coon-Upper Auburn and Upper Bear watersheds. Most watercourses, particularly those with perennial and intermittent regimes, contain riparian vegetative communities in areas that interface between land and the river stream system. These areas provide food, water, migration, and dispersal corridors, in addition to escape, nesting, and roosting habitat for numerous wildlife species. They also provide shade, sediment, nutrient or chemical regulation, and stream bank stability. These areas are also a source of input for large woody debris or organic matter to the channel, which are necessary habitat elements for fish and other aquatic species. Wetlands are also present in areas where water persists long enough to create anaerobic conditions. Wetlands provide additional habitat benefits to wildlife as well as their water detention and water recharge properties.

There are several wildlife species throughout this area of SR 49 including threatened and endangered, or otherwise regulated species.

Historic/Cultural Resources

There are known historic properties from the National Register of Historic Places (NRHP) located within and around the SR 49 corridor. Native American archaeological sites are likely to be buried beneath the ground surface. Archaeological sites dating to the historic period within the corridor are typical of those found in rural settings where homesteads, ranches, or farms were once present.

Architectural properties located within the corridor will most likely be associated with the agricultural history of the area. There is also the possibility of State or locally listed historic properties being located in the general vicinity of the SR 49 corridor.

Studies would have to be initiated to see if any potential resources would be disturbed or affected. Historical properties in the sphere of influence, within one mile of the SR 49 corridor are listed in Table 6.4. Possible impacts to other historic architectural resources that are more distant to the corridor may also need to be evaluated. Sensitive archaeological sites are known to exist along the length of the corridor.

Table 6.4 SR 49 NRHP Corridor Properties

Name	Type	Source Date	Segment
El Toyon	Building	March 30, 2010	1
Burns Irene House	Building	April 27, 2014	1
Auburn Fire House #1	Building	December 18, 2011	1
Placer County Bank	Building	December 18, 2011	1
Auburn City Hall & Fire House	Building	April 27, 2014	1
Auburn Masonic Temple	Building	December 18, 2011	1
Auburn Public Library	Building	March 30, 2011	1
Auburn Grammar School	Building	March 11, 2012	1
Oddfellows Hall	Building	December 18, 2011	1
Auburn Fire House #2	Building	December 18, 2011	1
North Star House	Building	January 31, 2011	4
Mt. Saint Mary's Academy & Convent	Building	May 2, 1974	4
Grass Valley Public Library	Building	March 25, 1992	4

Parks/Open Space

Section 4(f) of USC 49 Section 303 sets federal policy to preserve the natural beauty of open space and historic areas. Resources include publicly owned parks, recreation areas, wildlife, waterfowl refuges, and historic sites. Caltrans Environmental staff will determine the need for a Section 4(f) evaluation based on a specific project potential to impact 4(f) resources located in each study area. Mitigation for impacts will be developed where appropriate in corridor specific areas. Where specific projects for the Climate Change Policy (CCP) study do not involve new right-of-way acquisition, potential impacts to 4(f) resources could result due to the proximity of project related construction to these resources.

Public Health

The current composition of the corridor transportation system has a variety of implications for public health, ranging from chronic disease to collision-related injury/death to access to medical services.

The Centers for Disease Control and Prevention (CDC) acknowledges that the existing transportation infrastructure in the U.S. focuses primarily on vehicle travel, while walking and bicycling activity have declined compared to previous generations. The CDC notes that these trends have contributed to an increase in obesity, diabetes, heart disease, and other chronic health conditions. Conversely, active transportation such as walking and bicycling combined with transit use provide environmental and public health benefits, enabling individuals to be more physically active in their daily routines.

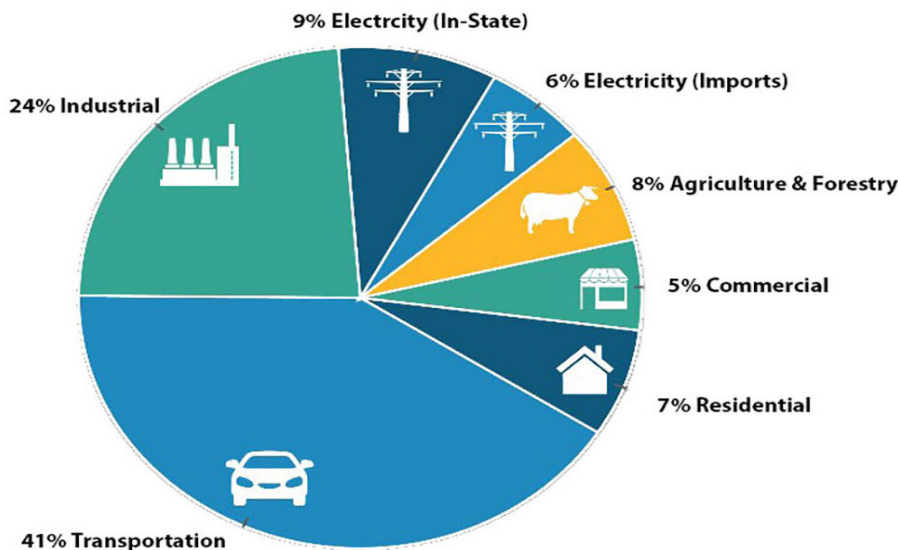
To combat these rising health issues, the bicycle and pedestrian projects proposed in the SR 49 CMCP will help to improve the corridor to promote a healthier lifestyle that encourages more bicycle and walking trips to reduce the dependence of single occupant vehicle trips. Bicycling and walking also work hand in hand with transit as part of the first mile/last mile solution.

The SR 49 corridor also influences public health in that it facilitates travel to and from appointments at the medical facilities located along the corridor, including the Sierra Nevada Memorial Hospital and the Sutter Auburn Faith Medical Center. For individuals with mobility impairments or other disabilities, corridor transit options are particularly important for access to medical services. Recent Community Health Needs Assessments completed by healthcare providers along the SR 49 corridor indicated that a lack of safe, affordable, and accessible transportation is a primary barrier to accessing medical care, particularly for residents living in more remote locales.

On-road emissions from cars, trucks, buses, and motorcycles account for a significant portion of harmful emissions in the greater Sacramento Metropolitan region. They also make up more than 41 percent of greenhouse gas emissions associated with climate change Statewide (2018 Total California Emissions, Figure 6.5). Today, air quality in the Greater Sacramento Region violates federal health standards under the Clean Air Act for several pollutants for which the federal government has found direct links to health problems. Increasing travel options and accommodating more travel via low and zero emission modes will reduce regional and Statewide greenhouse gas emissions and related adverse health effects.

With this shift in transportation policies, addressing these areas has never been more important for local, regional, state, and federal funding. This is highlighted by the SCCP program which states projects shall also be “designed to achieve a balanced set of transportation, environmental, and community access improvements within highly congested travel corridors”.

Table 6.5 2018 California Total Emissions



425.3 MMT CO2
2018 Total California Emissions



Chapter Seven: Stakeholder and Public Engagement

Stakeholder Outreach and Public Engagement

Caltrans District 3, in partnership with local agencies, key stakeholders, CBOs, and the public in the development of a CMCP for the SR 49 corridor in Nevada and Placer counties. These partner agencies are identified in Table 7.1. The COVID-19 pandemic required many changes for the public engagement strategy, as most activities emphasized digital engagement in lieu of in-person engagement. Engagement activities for the CMCP included a website for stakeholders and the public to view and comment on the development of the plan; outreach materials such as a fact sheets and FAQ sheets; traditional and social media outreach; reoccurring TAC and Stakeholder Advisory Group meetings; CBO interviews; an online open house with a survey; Native American Tribal outreach; digital prioritization survey; non-digital outreach activities; and public outreach for comments along the SR 49 project area.

The goals of SR 49 CMCP public engagement plan were to:

- Create a framework, strategies, activities, and schedule for meaningful engagement with SR 49 CMCP stakeholders, local and regional communities, partner agencies, community-based organizations, and the public with a focus on priority populations to ensure equity for all users.
- Inform and educate local agencies, stakeholders, and the public about the Caltrans multimodal corridor planning process.
- Seek to renew or initiate two-way dialogues with stakeholders and the public that incorporate appropriate communications responsive to the current COVID-19 environment.
- Focus on appropriate engagement activities that:
 - Are related to components of the SR 49 CMCP that are flexible and open to influence.
 - Provide timely opportunities for meaningful engagement;
 - Identify key concerns, preferences, and opinions about the SR 49 corridor from adjacent agencies, communities, commuters, and stakeholders.
- Create a public education, outreach, and engagement process that helps to build consensus and reflects the priorities and values of Caltrans, partner agencies, stakeholders, and the public, including shared agreement on recommended improvement projects and transportation strategies.
- Maintain and enhance collaboration and productive relationships among the project partners and where possible, leveraging partner capabilities to bring resources to corridor improvements.
- Build strategies into the CMCP that aid in maintaining relationships with partners, stakeholders, and the public following the conclusion of the planning process.
- Identify best practices, build staff capacity, and improve skills in public engagement.
- Use the SR 49 CMCP as a pilot project to support and provide an example for public engagement in other, future CMCPs in all districts.

Table 7.1 SR 49 Corridor Partners

SR 49 Corridor Partner Organizations	
Auburn 49er Lions Club	Nevada County CHP
Auburn Meddlers Club	Nevada County Public Works
Auburn Rancheria	Nevada County Transportation Commission (NCTC)
Bear Yuba Land Trust	North Auburn Municipal Advisory Committee (MAC)
California Highway Patrol (CHP), Grass Valley	Northern Sierra Air Quality Management District
City of Auburn	Placer County
City of Grass Valley	Placer County Air Pollution Control District
City of Grass Valley	Placer County AQMD
City of Nevada City	Placer County Health and Human Services
Colfax-Todds Valley	Placer County Transit
Concerned Citizens for Hwy 49	Placer County Transportation Planning Agency (PCTPA)
Gold Country Rotary	Placer Independent Resource Services
Gold Country Stage	Sacramento Area Council of Governments
Hwy 49 Business Association	Shingle Springs Band of Miwok Indians
Involved Cyclists of Nevada County	Sierra Foothills Cycling Club
Nevada County	Washoe Tribe of Nevada and California
Nevada County Airport	



Technical Advisory Committee and Stakeholder Advisory Groups

Caltrans met monthly with the TAC which was established to serve as a collaboration tool for the planning process. The TAC provided input on the public engagement process and was asked to publicize engagement activities on behalf of the CMCP process. The TAC met semi-monthly to review proposed projects, data and modeling, and public participation information.

Caltrans also met with the Stakeholders Advisory Group in separate meetings from the TAC to provide updates and receive direction on the development of the plan. The Stakeholder group is comprised of the management of local/regional government agencies and local government officials. Caltrans ensured that TAC members were part of the outreach strategy and provided assistance by promoting outreach activities for the development of the CMCP.

Caltrans hosted a kickoff meeting on September 9th, 2020 for the SR 49 CMCP. The first TAC Meeting was held on September 21th, 2020 and has since met 10 other times. The first Stakeholder Meeting was held on October 14th, 2020 and the group met for a total of three times.

Kickoff Meeting – September 9, 2020

The SR 49 Kickoff Meeting was conducted virtually. The meeting's objectives were to establish the TAC and the Stakeholder Team. The meeting attendees also discussed the purpose and need for a CMCP, as well as the SB 1 SCCP. The group established the CMCP's projects schedule moving forward and the Corridor Scope Study Limits.

Stakeholder Meeting 1 – October 14, 2020

The first stakeholder meeting was a virtual meeting. Caltrans District 3's Director, Amarjeet Benipal, touched on the collaborative efforts that the CMCP emphasizes. The TAC and Stakeholder roles & responsibilities were discussed as well as their respective meeting schedules. The SR 49 corridor segments,

CMCP chapter development, performance metrics, and engagement plan were also discussed.

Stakeholder Meeting 2 – March 22, 2021

The second meeting was a virtual meeting conducted by Caltrans District 3. Caltrans facilitated a discussion around the review of submitted projects, a review of the corridor demographics, priority population areas of focus, and the CMCP public participation plan. The public participation plan included a fact sheet, CMCP website, and dates for open houses.

Stakeholder Meeting 3 – January 20, 2022

The third meeting was a virtual meeting conducted by Caltrans District 3. Caltrans presented the list of projects, project prioritization methodology, and a recap of the public participation methods used throughout summer and fall 2021.

Public Outreach Methods

Each of the outreach activities listed in the introduction required publicity through established Caltrans channels as well as supplemental outreach efforts in coordination with trusted partners, agency representatives, and local community groups. The CMCP team worked to identify the timing and content for outreach efforts. This section outlines each of the outreach tools that were used to disperse information about the planning process and foster participation.

Website Updates

The SR 49 CMCP website: www.Hwy49CorridorPlan.com was utilized to post information and updates about the SR 49 CMCP. Caltrans District 3 kept the website up to date as project materials were developed. Caltrans promoted the launch of the project website and shared its availability with its partners.

E-mail

The project team established an extensive email list utilizing current contact lists and collecting additional contacts through public outreach. The team also coordinated with CBO partners to ask them to share emails or information on behalf of the CMCP. Through this list, the CMCP team kept the community informed with short emails that offered brief snippets of information during key project milestones.

Social Media Engagement

Regular posts on Facebook and Twitter accounts kept people engaged in the SR 49 CMCP. Posts mainly focused on CMCP milestones, upcoming community engagement opportunities, and key findings.

Press Releases and Local Media Relations

Caltrans issued press releases to local media outlets about CMCP milestones to publicize the survey and community engagement opportunities. Digital versions of the fact sheet and press releases were posted on the corridor website, social media channels and submitted to local newspapers.

Survey

Caltrans conducted an online survey to assess the public's use of the SR 49 corridor, including driving, bicycling, walking, and public transportation.

The survey included seven questions. It was available from July 8, 2021, to September 30, 2021. A total of 271 people responded to the survey. All questions were optional, and not all respondents completed every question. The survey, social media (Facebook and Twitter) played a key role in the public outreach. A link and announcement for the survey was developed and advertised through a variety of paid and free platforms to encourage diverse participation.

The key findings from the survey included:

- The most frequently used mode of transportation within the Study Area was single-occupant vehicles (around 92.5%).

- The next most used mode of transportation was carpool or vanpool with just 12% of survey respondents having listed that as a response.
- Other modes, besides driving alone are not used frequently.
- Convenience, commute time, and safety are the top variables that play into decision-making for commute mode.
- The majority of respondents rated their experience driving a vehicle on the corridor as dissatisfactory.
- Safety along the corridor and congestion on SR 49 were cited as the most critical concerns along the route.
- Improving traffic flow, facility improvements for evacuations, improving traffic speeds, and addressing queuing were the highest rated improvements along the SR 49 Corridor.
- In question 6 which asked to list what type of projects they favored, many respondents mentioned all around safety within the corridor.

Full survey results can be found in Appendix A.

Public Comment on Projects

Caltrans District 3 conducted an email response to assess the public's review of the projects listed in Chapter 5 of the CMCP. This comment period ran between February 1-15, 2022. The project list in Chapter 5 was placed on the CMCP website.

The majority of the responses were comments that had to do with general congestion, safety, bicycle and pedestrian infrastructure, and additional lanes.

The full comment list can be found in Appendix B.

Chapter Eight: Tribal Government Outreach

Tribal Government Outreach

For the SR 49 CMCP, Caltrans District 3 coordinated with the Native American Tribal Governments located in the corridor study area. The tribes participated in the kickoff meeting, TAC, and Stakeholder meetings with other local, regional and state agencies.

The following section is a list of Tribal Governments in the SR 49 CMCP Corridor Area.

United Auburn Indian Community of the Auburn Rancheria

Also Known As:	<ul style="list-style-type: none"> • United Auburn Indian Community • UAIC • Auburn Band of Miwok Indians • United Auburn
Recognition:	Federally Recognized
County:	El Dorado, Nevada, Placer, Sacramento, Yolo, Yuba
Tribal Affiliation:	Maidu, Miwok
Land Acreage:	51.8 acres
Website:	https://www.auburnrancheria.com/
Tribal Members	Approximately 170
Adjacent Highways:	I-80
Regional Highways:	SR 65, SR 193



Shingle Springs Band of Miwok Indians



Also Known As:	• Shingle Springs Rancheria
Recognition:	Federally Recognized
County:	El Dorado, Placer, Sacramento, Yolo
Tribal Affiliation:	Miwok
Land Acreage:	160 acres
Website:	https://www.shinglespringsrancheria.com/
Tribal Members	Approximately 500
Adjacent Highways:	US 50
Regional Highways:	SR 49, SR 99, SR 193

Colfax-Todds Valley Consolidated Tribe

Also Known As:	• Colfax-Todds Valley Consolidated Tribe of the Colfax Rancheria
Recognition:	Non-Federally Recognized
County:	Nevada, Placer, Sacramento
Tribal Affiliation:	Nisenan Maidu, Miwok
Land Acreage:	None
Website:	https://www.colfaxrancheria.com/
Tribal Members	Unknown
Adjacent Highways:	I-80
Regional Highways:	SR 49, SR 174



Chapter Nine: Project Evaluation

Project Evaluation

In addition to the planning level analysis outlined in Chapter 5, additional projects were assessed using a qualitative methodology based on key selected performance measures. A qualitative analysis is needed for the CMCP because not all projects included in the plan are able to be included in modeling tools. Examples of these project types include bicycle and pedestrian projects, certain types of safety-related projects, fiscally unconstrained projects, and some arterial projects. The following key performance measures are derived from a combination of State (CTC and Caltrans) and regional (NCTC, PCTPA, SACOG and local plans) programs, goals, and objectives. These performance measures were used to qualitatively assess the improvements:

- VMT Reduction
- Person Throughput
- Safety Improvement
- Mode Share/Mode Shift
- Vehicle/Person Hours of Delay
- Improve Accessibility/Travel Time by Mode
- Reduce GHG and Improve Air Quality
- Improve System Reliability

These performance metrics are used to assess the potential transportation system improvements in the Study Area. The intent is not to rank the improvements or measure them against each other, but rather to inform the SR 49 CMCP and ultimately the local, regional, state, and federal funding processes regarding how these projects address the overall goals and objectives related to state, regional, and local plans.

A set of rules were applied by project type for each performance metric to determine if that project type has a greater or lesser benefit as it relates to the performance measures. For example, some types of transportation improvements may significantly improve safety, but not necessarily reduce congestion, while others may reduce VMT, but not significantly affect system reliability. Additionally, for each performance metric category, a set of rules were established to identify if the improvement would result in a Low, Medium, or High score for each metric based on known characteristics and attributes of each type of improvement. This information is summarized in Table 9.1.



Table 9.1 Project Evaluation Scoring Methodology

Performance Measure	Low Score	Medium Score	High Score
Vehicle Miles Traveled (VMT) Reduction	<p>Active Transportation: Complete Streets: Sidewalks, Crosswalks, Traffic Calming, Pedestrian Improvements</p>	<p>Transit: Transit Centers/ Bus stations/ Bus stops, Park and Ride, Rideshare/ Vanpool</p> <p>Active Transportation: Bike-share, Bikeway - Class 1, 2, 3 and 4</p>	<p>Transit: New Bus Services, New Rail, Commuter Program Enhancements</p>
Total Person Throughput	<p>Active Transportation: Bikeway - Class 2 and 3</p> <p>Arterial: Arterial Corridor Improvement, Intersection Improvement</p> <p>Highway: Ramp Improvements, Intersection Improvement, Interchange Enhancement</p> <p>Transit: Bus Replacement/ Transit Maintenance/ Transit Operations</p>	<p>Active Transportation: Bikeway - Class 1 or 4, Complete Streets: Sidewalks, Crosswalks, Traffic Calming, Capacity Enhancement, ITS/ Operational Improvements</p> <p>Highway: ITS/ Operational Improvements</p> <p>Transit: Commuter Program Enhancements, Transit Centers/ Park and Ride/ Bus stations/ Bus stops, Rideshare / Vanpool</p>	<p>Transit: New Bus Services, New Rail</p> <p>Highway: Auxiliary Lane, Capacity Enhancements, Roundabout</p> <p>Active Transportation: Pedestrian and Bicycle Improvements</p>

Table 9.1 Project Evaluation Scoring Methodology, Con't.

Performance Measure	Low Score	Medium Score	High Score
Safety: Collision and Evacuation (by mode)	<p>Active Transportation: Bikeway Class 2 and 3 or Shoulder Enhancement</p> <p>Arterial: Arterial Corridor Improvement</p> <p>Transit: Bus Replacement/ Transit Maintenance/ Transit Operations, Transit Centers/ Park and Ride/ Bus Stations/ Bus Stops</p>	<p>Active Transportation: Complete Streets: Sidewalks, Crosswalks, Traffic Calming</p> <p>Arterial: Intersection Improvement</p> <p>Highway: Intersection Improvement, Interchange Enhancements, Expressway Conversion</p>	<p>Arterial/Highway: Evacuation Route improvements, ITS/ Operational Improvements, Ramp Improvements, TWLTL (Two way left turn lanes), Shoulder addition and/or adding rumble strips, Median Barriers, Guardrail, Roundabout, Capacity Improvements for Rural regions</p> <p>Active Transportation: Class 1 and 4 Bikeway, Pedestrian Over/ Under Crossings</p>
Mode Share/Mode Shift - Transit/Managed Lanes/Bicycle and Walking	<p>Active Transportation: Bikeway Class 3</p> <p>Transit: Bus Replacement/ Transit Maintenance/ Transit Operations</p>	<p>Active Transportation: Bikeway - Class 2, Pedestrian Improvements, Complete Streets: Sidewalks, Crosswalks, Traffic Calming, Over- or under- crossing improvements for bicycling and walking</p> <p>Transit: Commuter Program Enhancements, Transit Centers/ Bus Stations/Stops</p>	<p>Active Transportation: Bikeway - Class 1 or 4</p> <p>Transit: Rideshare/ Vanpool, Park and Ride, New Bus Services Frequencies, New Rail</p> <p>Highway: Managed Lanes (Highway)</p>



Table 9.1 Project Evaluation Scoring Methodology, Con't.

Performance Measure	Low Score	Medium Score	High Score
<p>Vehicle/Person Hours of Delay</p>	<p>Active Transportation: Bikeway - Class 1, 2, 3 or 4, Pedestrian Improvements, Pedestrian Over/Under Crossings</p> <p>Transit: Bus Replacement/ Transit maintenance/ Transit Operations</p>	<p>Active Transportation: Complete Streets: Sidewalks, Crosswalks, Traffic Calming</p> <p>Transit: New Bus, New Rail</p> <p>Highway: Ramp Improvements</p>	<p>Arterial: Corridor Improvements, Intersection Improvements, Capacity Enhancements</p> <p>Highway: Auxiliary Lane, Capacity Enhancements, Managed Lanes, ITS/ Operational Improvements, Interchange Improvements</p>
<p>Accessibility: Travel Time by Mode</p>	<p>Arterial: Arterial Corridor Improvement</p> <p>Transit: Bus Replacement/ Transit Maintenance/ Transit Operations</p>	<p>Active Transportation: 1st/ Last Mile, Complete Streets: Sidewalks, Crosswalks, Traffic Calming: Sidewalks, Crosswalks, Traffic Calming, Bike/Ped Bridges, Bikeshare, Bikeway - Class 1, 2, 3 and 4, Pedestrian Improvements, Pedestrian Over/Under Crossings</p> <p>Arterial: Capacity Enhancement, ITS/ Operational Improvements, Intersection Improvement</p> <p>Transit: Commuter Program Enhancements, Transit Centers/ Park and Ride/ Bus stations/ Bus stops</p>	<p>Highway: Managed Lanes, Auxiliary Lane, Capacity Enhancement, Integrated Corridor Management, Interchange Enhancements, ITS/ Operational Improvements, Ramp Improvements</p> <p>Transit: New On-Demand Services, New Bus Services, New Rail, Rideshare / Vanpool</p>

Table 9.1 Project Evaluation Scoring Methodology, Con't.

Performance Measure	Low Score	Medium Score	High Score
<p>Sustainability: Greenhouse gas (GHG emissions)/Air Quality</p>	<p>Transit: Transit Maintenance/ Transit Operations, Transit Centers/ Bus stations/ Bus stops</p>	<p>Transit: Commuter Program Enhancements, New Bus, New Rail, Park and Ride Charging Stations: Solar Panels, Rideshare / Vanpool</p> <p>Highway: Managed Lanes, Interchange Enhancement, ITS Operational Improvements</p>	<p>Active Transportation: Complete Streets: Sidewalks, Crosswalks, Traffic Calming: Bikeway - Class 1, 2, 3 and 4, Pedestrian Improvements, Pedestrian Over/Under Crossings</p> <p>Arterial/Highway: Roundabout</p> <p>Transit: Bus Replacement</p>
<p>Improve System Reliability</p>	<p>Active Transportation: Bikeway - Class 2 and 3, Pedestrian Improvements, Pedestrian Over/Under Crossings</p> <p>Transit: On-Demand Transit Service, Bus Replacement/ Transit Maintenance/ Transit Operations</p>	<p>Active Transportation: Bikeway – Class 1 and 4, Complete Streets: Sidewalks, Crosswalks, Traffic Calming</p> <p>Arterial: Capacity Enhancements, Expressway Conversion</p> <p>Transit: Transit Centers/ Park and Ride/ Bus stations/ Bus stops, New Bus services, Rideshare / Vanpool</p>	<p>Highway: Managed Lanes, Capacity Enhancements, Auxiliary Lane, ITS Operational Improvements, Ramp Improvements, Interchange Enhancements, Expressway Conversion</p> <p>Transit: New Bus Service, New Rail</p> <p>Arterial: Corridor Improvements, Intersection Improvements</p>



The qualitative scores of Low, Medium, or High were assigned based on a classification of project types against the performance measures listed above. In other words, each project of the same classification type received the same score. The scores may represent a starting point for further evaluation at an individual project level, within the environmental process or other more detailed project-focused modeling or analytical exercises. A dash indicates that there is no score in that performance measure as it does not meet any of the metrics.

It is also critical to note that individual projects may have greater or lesser benefit than represented by their generic classification used for the scoring in the table, depending on a number of factors, for example: 1) the scope and scale of the specific project; 2) the context within which the project is being proposed (e.g. a more congested or less congested setting); and 3) the cost or funding status of the project (e.g. a smaller scale lower scoring project could have high cost-effectiveness where the cost is also low).

Table 9.2 shows the list of the projects found in Chapter 5 with their qualitative scores from the Table 9.1 scoring metrics.



Table 9.2 Project Evaluation Scoring Chart

Segment	Constrained / Unconstrained	Project Name	Project Description	Mode	County	Route	VMT	Person Throughput	Safety	Mode Share	Person Delay	Accessibility	GHG and Air Quality	System Reliability
1	Constrained	Eastbound I-80 at Auburn Ravine Road. Install ramp meters.	Eastbound I-80 at Auburn Ravine Road. Install ramp meters.	Highway	PLA	80	-	L	H	-	M	H	-	H
1	Constrained	Eastbound I-80 at Elm Avenue. Install ramp meters.	Eastbound I-80 at Elm Avenue. Install ramp meters.	Highway	PLA	80	-	L	H	-	M	H	-	H
1	Constrained	Eastbound I-80 at the Bowman undercrossing. Install ramp meters.	Eastbound I-80 at the Bowman undercrossing. Install ramp meters.	Highway	PLA	80	-	L	H	-	M	H	-	H
1	Constrained	In Placer County in the city of Auburn, at the Bell Rd/I-80 Interchange. Construct capacity & operational improvements to interchange.	In Placer County in the city of Auburn, at the Bell Rd/I-80 Interchange. Construct operational improvements to interchange. SHOPP ID 18145	Highway	PLA	80	-	L	H	-	H	H	M	H
1	Constrained	In Placer County on Route 49 approaching the Willow Creek Drive intersection. Dual left turn lanes (NB).	In Placer County on Route 49 approaching the Willow Creek Drive intersection. Dual left turn lanes (NB).	Highway	PLA	49	-	L	M	-	H	M	-	-
1	Constrained	In Placer County on route 49 at Bell Road intersections. NB Right Turn lanes.	In Placer County on route 49 at Bell Road intersections. NB Right Turn lanes.	Highway	PLA	49	-	L	M	-	H	M	-	-



Table 9.2 Project Evaluation Scoring Chart Con't.

Segment	Constrained / Unconstrained	Project Name	Project Description	Mode	County	Route	VMT	Person Throughput	Safety	Mode Share	Person Delay	Accessibility	GHG and Air Quality	System Reliability
1	Constrained	In Placer County on Route 49 at the Kemper Road intersection. Kemper Rd channelization to improve SR49 operations.	In Placer County on Route 49 at the Kemper Road intersection. Kemper Rd channelization to improve SR49 operations.	Highway	PLA	49	-	L	M	-	H	M	-	-
1	Constrained	SR 49 Pavement Rehab	From SR 49/I-80 junction to Dry Creek Rd. HMA overlay, Class II bike lanes, two new traffic signals.	Highway	PLA	49	L	L	L	M	L	M	M	L
1	Constrained	Highway 49 Sidewalk Gap Closure	Along SR 49 from I-80 to Dry Creek Road construct sidewalks and ADA curb ramps at various locations.	Highway	PLA	49	L	M	M	M	L	M	M	M
1	Constrained	Richardson Drive	Construct 2 lane roadway - connection between Dry Creek Road and Bell Road	Highway	PLA	49	-	L	L	-	H	L	-	H
1	Constrained	SR 49 Widening A	Widen from 4 lanes to 6 lanes Bell Road to Locksley Lane	Highway	PLA	49	-	H	-	-	H	H	-	H
1	Constrained	SR 49 Widening B	Widen from 4 lanes to 6 lanes Locksley Lane to Dry Creek Road	Highway	PLA	49	-	H	-	-	H	H	-	H

Table 9.2 Project Evaluation Scoring Chart Con't.

Segment	Constrained / Unconstrained	Project Name	Project Description	Mode	County	Route	VMT	Person Throughput	Safety	Mode Share	Person Delay	Accessi-bility	GHG and Air Quality	System Reliability
1	Constrained	SR 49 Widening C	Widen from 4 lanes to 6 lanes from Luther Road to Nevada Street.	Highway	PLA	49	-	H	-	-	H	H	-	H
2	Constrained	49 Corridor - Roundabouts/ Median Barrier	Construct median barrier between Lorenson Rd and Lonestar Rd and roundabouts at Lorenson Rd and Lone Star Rd intersections.	Highway	PLA	49	-	H	H	-	H	H	-	-
2	Constrained	Dual left turn lanes (NB).	Dual left turn lanes (NB) at SR 49 and Dry Creek Rd.	Highway	PLA	49	-	L	M	-	H	M	-	-
2	Constrained	SR 49 at various locations NB and SB from Auburn to Grass Valley	Install Traveler Information System/Vehicle Detection System	Highway	NEV	49	-	M	H	-	H	H	M	H
3	Unconstrained	SR 49 south of Alta Sierra Drive to South of Kenwood Drive	Second SB through lane with median and shoulder widening; leave Pingree Road as T-intersection; connect Ponderosa Road to Pingree Road to Little Valley Road intersection	Highway/ Active	NEV	49	-	H	H	-	H	H	-	H
3	Unconstrained	SR 49 from North of Lime Kiln Road to South of Alta Sierra Drive	SR 49 Widen to 5 lanes, shoulders; Construct frontage roads	Highway/ Active	NEV	49	-	H	H	-	H	H	-	H



Table 9.2 Project Evaluation Scoring Chart Con't.

Segment	Constrained / Unconstrained	Project Name	Project Description	Mode	County	Route	VMT	Person Throughput	Safety	Mode Share	Person Delay	Accessibility	GHG and Air Quality	System Reliability
3	Unconstrained	SR 49 North of Cherry Creek Road to South of Lime Kiln Road	Lengthen two SB lanes; eliminate southerly connection and improve northerly connection with Cherry Creek Road intersection	Highway	NEV	49	-	H	H	-	H	H	-	H
3	Constrained	SR 49 at Brewer Road and Atla Sierra Drive	Install safety lighting and 4 radar feedback signs	Highway	NEV	49	-	M	H	-	H	H	M	H
3	Unconstrained	SR 49 at Meadowbrook Court	Install lighting, acceleration/deceleration lanes	Highway	NEV	49	-	L	H	-	H	H	-	H
4	Constrained	SR 49 Corridor Improvement Project Phase 1	Construction of NB Truck Climbing Lane, 16' continuous two-way left-turn-lane, shoulder widening, right turn deceleration/acceleration lanes SB at Crestview Drive, Smith Road, Bethel Church Way, and Wellswood Way	Highway/Active	NEV	49	-	H	H	-	H	H	-	H
4	Unconstrained	SR 49 Corridor Improvement Project Phase 2	Construction of SB Truck Climbing Lane	Highway	NEV	49	-	H	H	-	H	H	-	H

Table 9.2 Project Evaluation Scoring Chart Con't.

Segment	Constrained / Unconstrained	Project Name	Project Description	Mode	County	Route	VMT	Person Throughput	Safety	Mode Share	Person Delay	Accessi-bility	GHG and Air Quality	System Reliability
4	Unconstrained	SR 49 Corridor Improvement Project Phase 3	Construction of 22' median with safety barrier (Type 60 M) construction of two at-grade intersections and frontage roads	Highway	NEV	49	-	H	H	-	H	H	-	H
1,2	Constrained	System Management/Traffic Operations System on SR49	Operational Improvements: traffic monitoring stations, closed circuit television, highway advisory radio, changeable message signs, and other system management infrastructure in Placer County. (PM 3.2/11.372)	Highway	PLA	49	-	M	H	-	H	M	M	H
1,2	Constrained	SR49 Signalizations/ Improvements	Signalizations and Improvements along SR 49 in Auburn/North Auburn.	Highway	PLA	49	-	M	H	-	H	M	M	H
3,4	Unconstrained	SR 49 Class II and III Bike Lanes	Shoulder improvements SR 49 from Placer County line to McKnight Way Interchange	Active	NEV	49	M	L	L	M	L	M	H	L
3,4	Unconstrained	SR 49	Various locations - enhance existing Park-n-Rides, explore opportunities for new Park-n-Ride lots	Highway	NEV	49	M	M	M	M	-	M	M	M

Chapter Ten: Funding Sources and Next Steps

Funding Sources and Next Steps

This chapter includes a comprehensive summary of various funding sources that can be used by Caltrans and SR 49 corridor partners and stakeholders to implement the recommended projects. These include funding related to local, regional, federal, and State funding programs. The sections below describe potential grant programs to assist in the funding and development of projects outlined in the CMCP.

Solutions for Congested Corridors Program

The CTC administers the SCCP to provide funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion throughout the State. Transportation agencies and Caltrans may nominate projects for funding.

Trade Corridor Enhancement Program

TCEP focuses on routes and transportation infrastructure vital to California's trade and freight economy. Caltrans and regional entities can be project sponsors. Regional funding targets are set for specific regions in the State, including the Sacramento Valley region.

Federal Funding Sources

Federal transportation funding is administered by the US DOT and authorized by Federal transportation bills. The most recent transportation funding bill, Infrastructure Investment and Jobs Act/Bipartisan Infrastructure Law (IIJA/BIL), was signed into law in 2021. Much of the funding available through the US DOT's Highway Trust Fund is allocated to California based on the state's population. The State of California, in turn, distributes those funds to local agencies by formula or through competitive grant programs. For instance, the majority of the federally funded Surface Transportation Program funding in California is programmed through the STIP (Statewide Transportation Improvement Program). Additionally, California's Active Transportation Program consolidated most of the federal and State funding sources for bicycle and pedestrian projects.

Through the IIJA/BIL, US DOT provides competitive discretionary funding programs for transportation projects, notable ones include Infrastructure for Rebuilding America (INFRA) which emphasizes highway and goods movement projects, and Rebuilding American Infrastructure with Sustainability and Equity (RAISE) which emphasizes capital investments in surface transportation that will have a significant local or regional impact

Table 10.1, lists the US DOT programs that may be utilized for the SR 49 CMCP projects.

Table 10.1 Federal Funding Sources

Name	Funding Type	Eligible Modes/Description
INFRA	Discretionary	A Federal discretionary grant program reviewed by US DOT. Emphasis on highway and goods.
RAISE	Discretionary	A Federal discretionary grant program reviewed by US DOT. Emphasis on multimodal projects.
New Starts and Small Starts (FTA Section 5309)	Discretionary	Funds light rail, heavy rail, commuter rail, streetcar, and bus rapid transit projects.
Highway Safety Improvement Program (HSIP)	Discretionary	Federally allocated to the State by formula, the HSIP program is available for roadway safety projects through a competitive program administered by Caltrans.
Congestion Mitigation Air Quality (CMAQ)	Formula	Federally designated air quality containment areas receive funding by formula to program local and regional projects.
Rail-Highway Crossings (Section 130) Program	Discretionary	Safety improvements to reduce the number of fatalities, injuries, and crashes at public railway-highway crossings.
Grade Separation (Section 190) Program	Discretionary	This competitive grant program provides \$15 million each year to local agencies for the construction grade separation projects.
National Highway Freight Program	Discretionary	The FAST Act established National Highway Freight Program (NHFP) to improve the efficient movement of freight on the National Highway Freight Network (NHFN).
National Highway Performance Program	Discretionary	The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS.
Nationally Significant Federal Lands and Tribal Projects	Discretionary	The Nationally Significant Federal Lands and Tribal Projects (NSFLTP) program provides funding for constructing, reconstructing, and rehabilitating nationally significant projects on Federal or Tribal lands.
Surface Transportation Block Grant Program	Formula	STBG provides flexible funding that States and local governments may use for projects on any Federal-aid highway, including the National Highway System; bridge projects on any public road; transit capital projects; and public bus terminals and facilities.

**Table 10.1 Federal Funding Sources, Con't.**

Name	Funding Type	Eligible Modes/Description
National Significant Freight and Highway Projects (NS-FHP)	Discretionary	The Nationally Significant Freight and Highway Projects (NSFHP) provides financial assistance—competitive grants or credit assistance—to nationally and regionally significant freight and highway projects that align with the program goals to: improve safety, efficiency, and reliability of the movement of freight and people; generate national or regional economic benefits and an increase in US global economic competitiveness; reduce highway congestion and bottlenecks; Improve connectivity between modes of freight transportation; enhance the resiliency of critical highway infrastructure and help protect the environment; improve roadways vital to national energy security; address the impact of population growth on the movement of people and freight, mitigate impacts of freight movements on communities.
Federal Transit Administration Sections 5303, 5304, 5305	Discretionary	Provides procedural and funding requirements for multimodal transportation planning in States and metropolitan areas. Planning must be cooperative, continuous, and comprehensive leading to long-range plans and short-range programs that reflect transportation investment priorities. Funds are available to States and Metropolitan Planning Organizations (MPOs) for planning activities.
Federal Transit Administration Section 5307	Formula	The Urbanized Area Formula Funding program provides Federal resources to urbanized areas and to governors for transit capital and operating assistance and for transportation related planning.
Federal Transit Administration Section 5311	Formula	This program provides formula-based funding for capital and/or operating assistance to rural areas with a population fewer than 50,000 where many residents rely on public transit to reach their destinations.

Table 10.1 Federal Funding Sources, Con't.

Name	Funding Type	Eligible Modes/Description
Federal Transit Administration Section 5312	Discretionary	This program supports research activities that improve the safety, reliability, efficiency, and sustainability of public transportation by investing in the development, testing, and deployment of innovative technologies, materials, and processes.
Federal Transit Administration Section 5337	Formula	The State of Good Repair program is dedicated to repairing and upgrading the Nation's rail transit systems along with high-intensity motor bus systems that use high-occupancy vehicle lanes, including bus rapid transit.
Federal Transit Administration Section 5339	Formula	The Bus and Bus Facilities Infrastructure Investment Program (49 USC. 5339) provides Federal resources to states and direct recipients to replace, rehabilitate and purchase buses and related equipment. This programs also allows for the construction of bus-related facilities, including technological changes or innovations to modify low or no emission vehicles or facilities.
Federal Transit Administration Transit-Oriented Development Planning Pilot	Discretionary	Provides funding to advance planning efforts that support transit-oriented development (TOD) associated with new fixed-guideway and core capacity improvement projects. TOD focuses growth around transit stations to promote ridership, affordable housing near transit, revitalized downtown centers and neighborhoods, and encourage local economic development.
Recreational Trails Program	Discretionary	The Recreational Trails Program (RTP) provides funds annually for recreational trails and trails-related projects. The RTP is administered at the Federal level by the Federal Highway Administration. It is administered at the state level by the California Department of Parks and Recreation (DPR).

In addition to these Federal funding sources, the IIJA/BIL continues the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program, which provides Federal credit assistance to eligible surface transportation projects, including highway, transit, intercity passenger rail, select types of freight rail, inter modal freight transfer facilities, and some modifications inside a port terminal.

The IIJA/BIL continues the authority of the TIFIA program to provide to States, localities, or other public authorities, as well as private entities undertaking projects sponsored by public authorities, three distinct types of financial assistance:

- Secured loans are direct Federal loans to project sponsors offering flexible repayment terms and providing combined construction and permanent financing of capital costs.
- Loan guarantees provide full-faith-and-credit guarantees by the Federal Government to institutional investors, such as pension funds, that make loans for projects.
- Lines of credit are contingent sources of funding in the form of Federal loans that may be drawn upon to supplement project revenues, if needed, during the first 10 years of project operations. [23 U.S.C. 603 and 604]

State Funding Sources

With the passage of SB 1, the Road Repair and Accountability Act of 2017, the State of California has additional transportation funding for local and regional projects. SB 1 augmented existing sources of funding, such as the Active Transportation Program and SHOPP, and created competitive funding programs, such as the SCCP and TCEP. Table 10.2 highlights the state funding sources that are most relevant to the SR 49 CMCP projects.

Table 10.2 State Funding Sources

Name	Funding Type	Eligible Modes/Description
Local Streets and Roads	Formula	Cities and counties receive funds for road maintenance, safety projects, railroad grade separations, complete streets, and traffic control devices.
Solutions for Congested Corridors (SCCP)	Discretionary	Regional transportation authorities and Caltrans may nominate projects for funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion.
Trade Corridor Enhancement (TCEP)	Discretionary	Caltrans and regional entities can be project sponsors. Funding is available for infrastructure improvements in the Central Coast, Bay Area, Central Valley, LA/Inland Empire, and San Diego/Border.
Local Partnership Program (LPP)	60% Discretionary, 40% Formula	Eligible funding for “self-help” counties. ¹ Most transportation improvements are eligible.
Active Transportation Program (ATP)	Discretionary	Eligible projects include bicycle and pedestrian improvements and planning. SB 1 augmented the ATP with an extra \$100M annually to the program.
State Highway Operation and Protection Program (SHOPP)	Formula	Projects are selected by Caltrans and adopted by the CTC. Projects included in the program are limited to capital improvements relative to the maintenance, safety, operation, and rehabilitation of the state highway system that do not add new capacity to the system.
State Transportation Improvement Program (STIP)	Formula	Projects are proposed by regional transportation agencies and approved by the CTC on a bi-annual basis. The majority of the STIP funding comes from Federal sources.
Transit and Intercity Rail Capital Program (TIRCP)	Discretionary	Discretionary program administered by Caltrans and the California State Transportation Agency (CalSTA). Funds transformative capital improvements that will modernize California’s intercity, commuter, and urban rail systems, and bus and ferry transit systems, to significantly reduce emissions of greenhouse gases, vehicle miles traveled, and congestion.



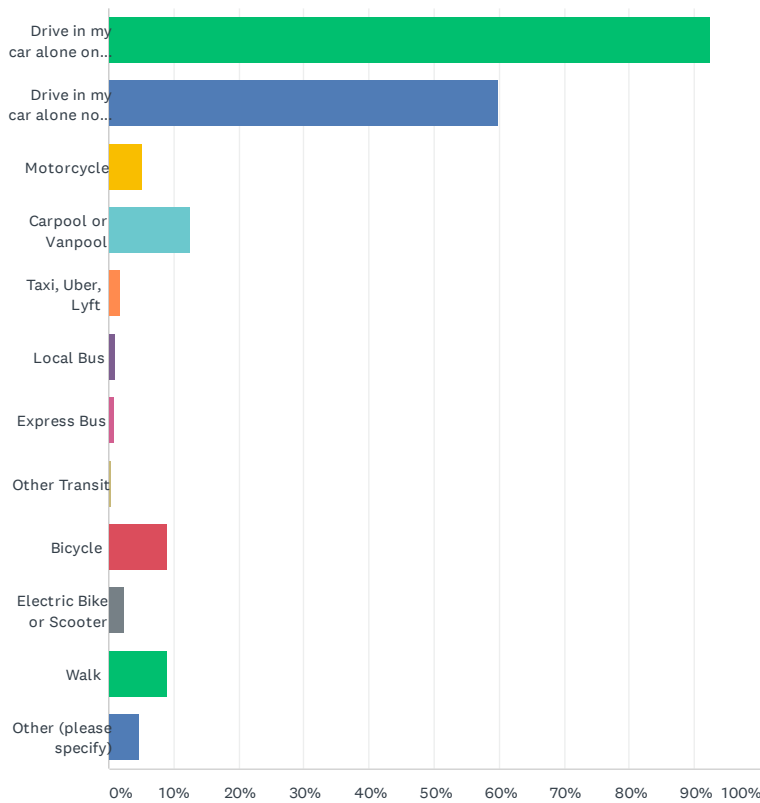
Appendix A: Public Survey

Public Survey

Hwy 49 CMCP Public Survey

Q1 How often do you use the following modes of transportation within the Study Area, shown in the map above? (Please select all that apply).

Answered: 269 Skipped: 2



ANSWER CHOICES	RESPONSES	
Drive in my car alone on Hwy 49	92.57%	249
Drive in my car alone not on Hwy 49	59.85%	161
Motorcycle	5.20%	14
Carpool or Vanpool	12.64%	34
Taxi, Uber, Lyft	1.86%	5
Local Bus	1.12%	3
Express Bus	0.74%	2
Other Transit	0.37%	1
Bicycle	8.92%	24
Electric Bike or Scooter	2.60%	7
Walk	8.92%	24
Other (please specify)	4.83%	13
Total Respondents: 269		



Hwy 49 CMCP Public Survey

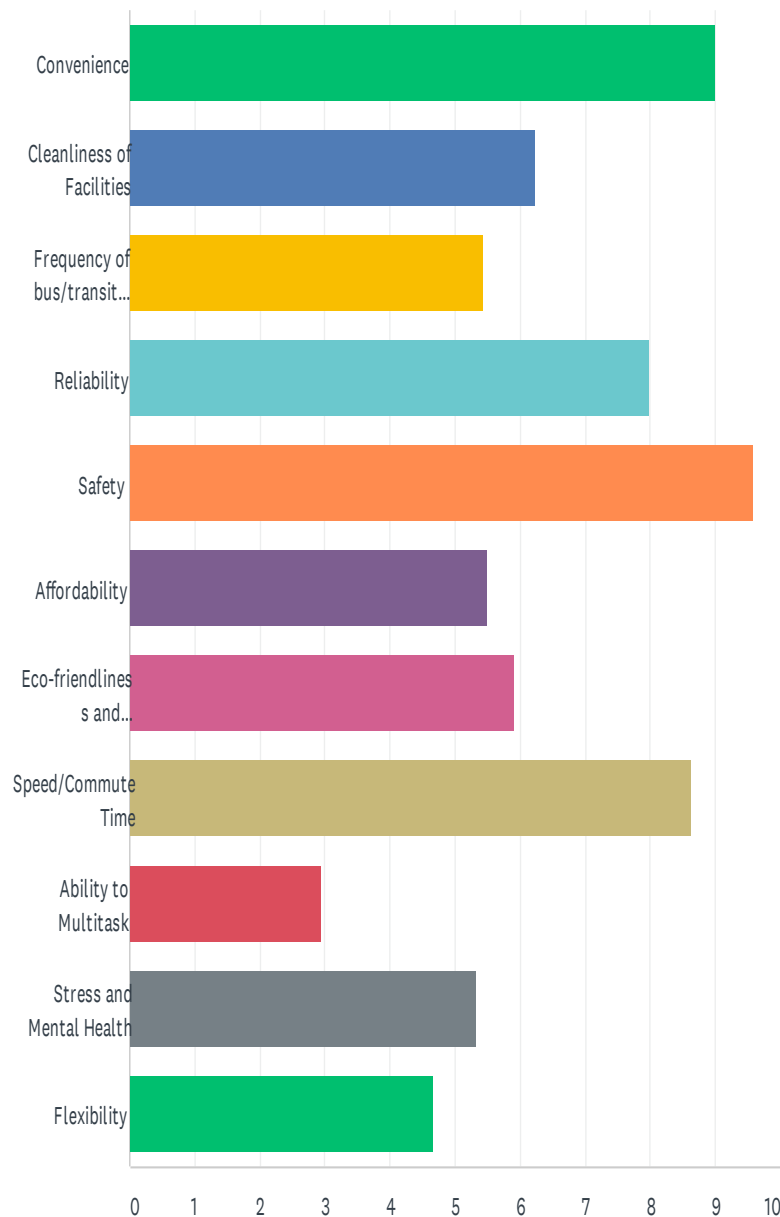
#	OTHER (PLEASE SPECIFY)	DATE
1	Drive not alone on Hwy 49	9/10/2021 11:36 AM
2	Droving horses, horse and carriage	9/10/2021 2:58 AM
3	Bad question. You asked "How often," yet give us a yes-or-no checklist	7/11/2021 4:00 PM
4	drive with my family	7/11/2021 2:21 PM
5	senior - losing eyesight - hope for alternative transportation.	7/11/2021 1:18 PM
6	Drive with passengers on Highway 49	7/10/2021 9:56 AM
7	Drive in my car with others	7/9/2021 5:57 PM
8	drive in my car with family	7/9/2021 4:46 PM
9	Drive in my car with family members on Hwy 49, roughly 2-4 times/month.	7/9/2021 4:03 PM
10	Drive in my car - not alone	7/8/2021 6:45 PM
11	Drive with friend for grocery shopping	7/8/2021 11:26 AM
12	Once a month from Granite Bay to Grass Valley. Used to be MUCH more.	7/8/2021 10:33 AM
13	Drive six cars on Highway 49 daily to and from Lonestar. Three houses on my property.	7/8/2021 9:46 AM



Hwy 49 CMCP Public Survey

Q2 Please rank the following elements as your top 5 in terms of how important they are in your decision-making for commute mode on the Hwy 49 Corridor. (1 is the most important).

Answered: 267 Skipped: 4





Hwy 49 CMCP Public Survey

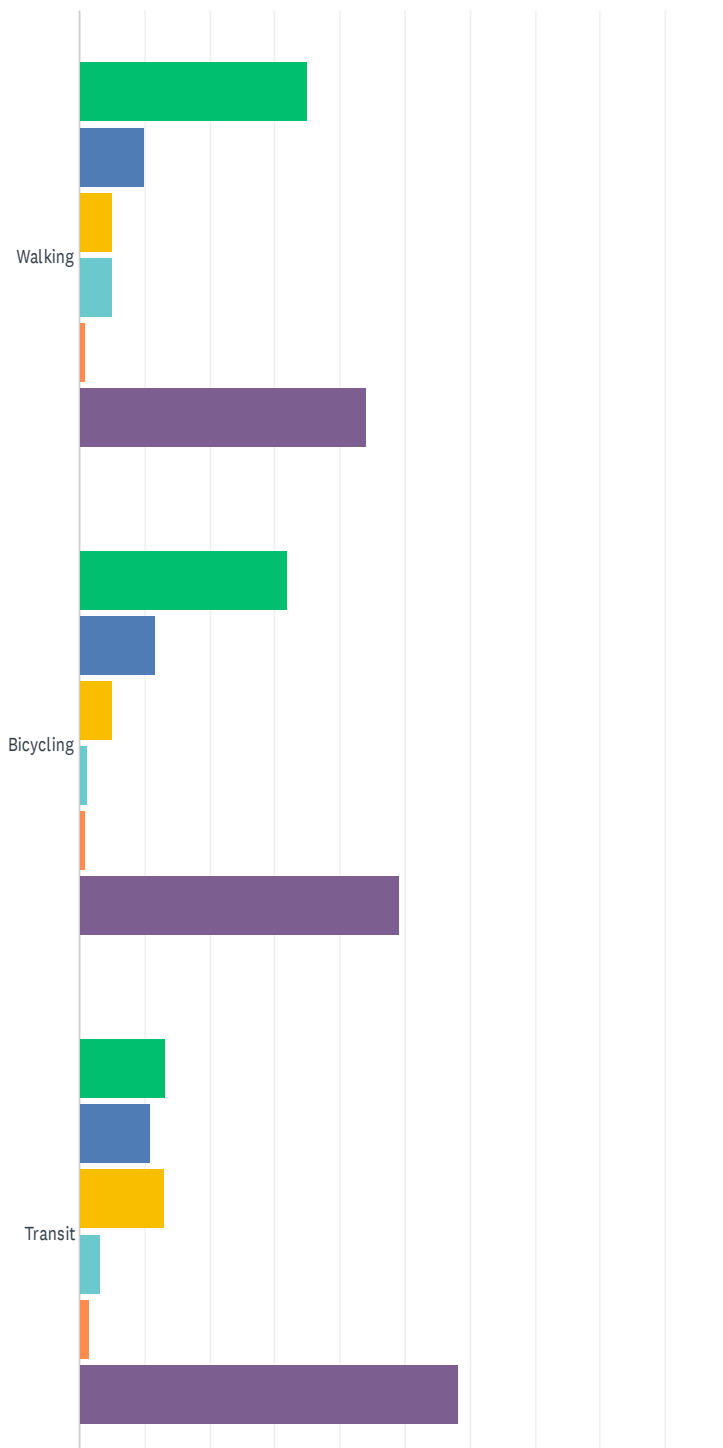
	1	2	3	4	5	6	7	8	9	10	11	TOTAL
Convenience	30.17% 73	19.42% 47	17.36% 42	14.46% 35	7.85% 19	4.13% 10	1.24% 3	2.48% 6	0.41% 1	1.65% 4	0.83% 2	242
Cleanliness of Facilities	2.53% 4	8.23% 13	11.39% 18	12.66% 20	16.46% 26	10.76% 17	10.76% 17	12.03% 19	4.43% 7	4.43% 7	6.33% 10	158
Frequency of bus/transit headways	5.49% 9	3.66% 6	6.71% 11	11.59% 19	9.15% 15	12.80% 21	10.37% 17	9.15% 15	10.37% 17	12.80% 21	7.93% 13	164
Reliability	2.34% 5	20.56% 44	21.03% 45	18.69% 40	18.69% 40	9.35% 20	5.14% 11	3.27% 7	0.93% 2	0.00% 0	0.00% 0	214
Safety	47.84% 111	18.97% 44	9.91% 23	7.33% 17	8.19% 19	3.88% 9	0.86% 2	0.86% 2	1.29% 3	0.86% 2	0.00% 0	232
Affordability	1.20% 2	2.40% 4	3.59% 6	10.78% 18	15.57% 26	13.77% 23	20.96% 35	13.17% 22	11.38% 19	3.59% 6	3.59% 6	167
Eco-friendliness and ecological responsibility	2.17% 4	9.78% 18	10.87% 20	8.15% 15	11.96% 22	9.78% 18	9.24% 17	21.20% 39	5.43% 10	6.52% 12	4.89% 9	184
Speed/Commute Time	20.50% 49	24.27% 58	20.08% 48	12.55% 30	6.69% 16	3.35% 8	3.77% 9	3.77% 9	2.93% 7	1.67% 4	0.42% 1	239
Ability to Multitask	1.27% 2	1.90% 3	2.53% 4	1.27% 2	2.53% 4	0.63% 1	3.16% 5	3.16% 5	37.34% 59	20.25% 32	25.95% 41	158
Stress and Mental Health	1.58% 3	6.32% 12	10.53% 20	12.63% 24	11.05% 21	6.32% 12	7.89% 15	6.84% 13	7.37% 14	22.63% 43	6.84% 13	190
Flexibility	1.04% 2	3.65% 7	6.77% 13	12.50% 24	13.02% 25	5.73% 11	9.90% 19	4.69% 9	6.25% 12	9.38% 18	27.08% 52	192



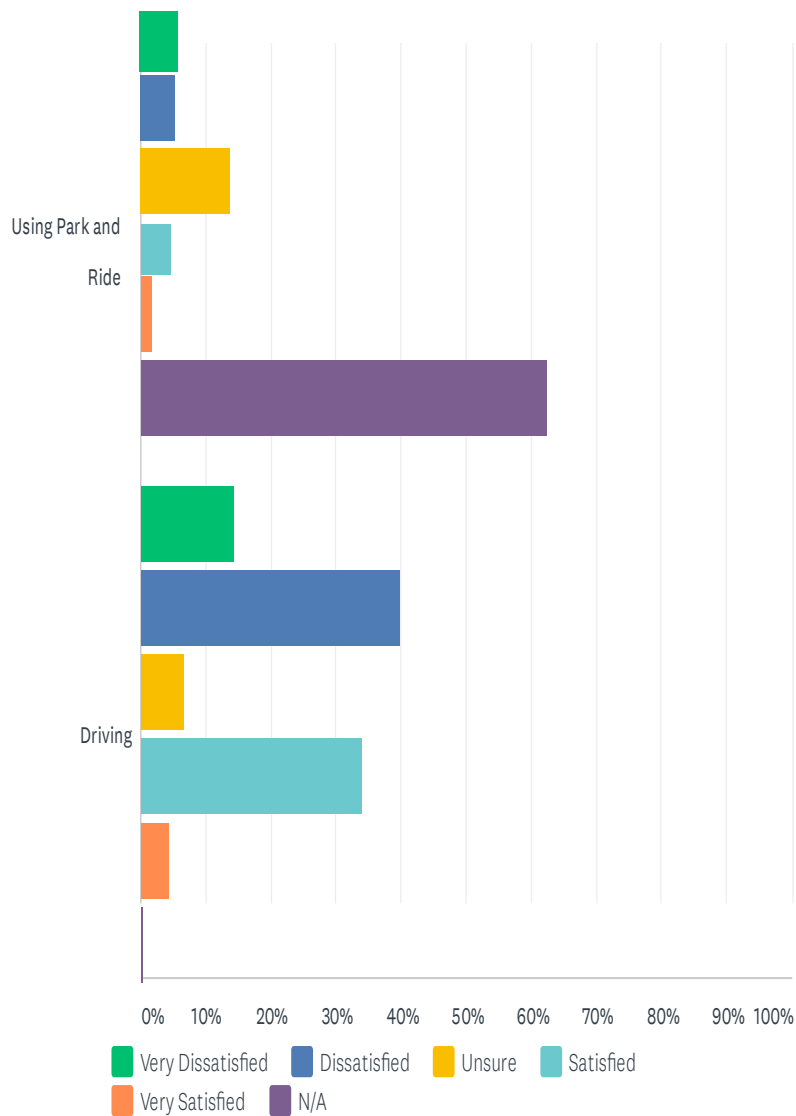
Hwy 49 CMCP Public Survey

Q3 How would you rate the experience traveling along the Hwy 49 Corridor in the following modes? (Please select all that apply): Very Dissatisfied, Dissatisfied, Unsure, Satisfied, Very Satisfied, N/A.

Answered: 270 Skipped: 1



Hwy 49 CMCP Public Survey



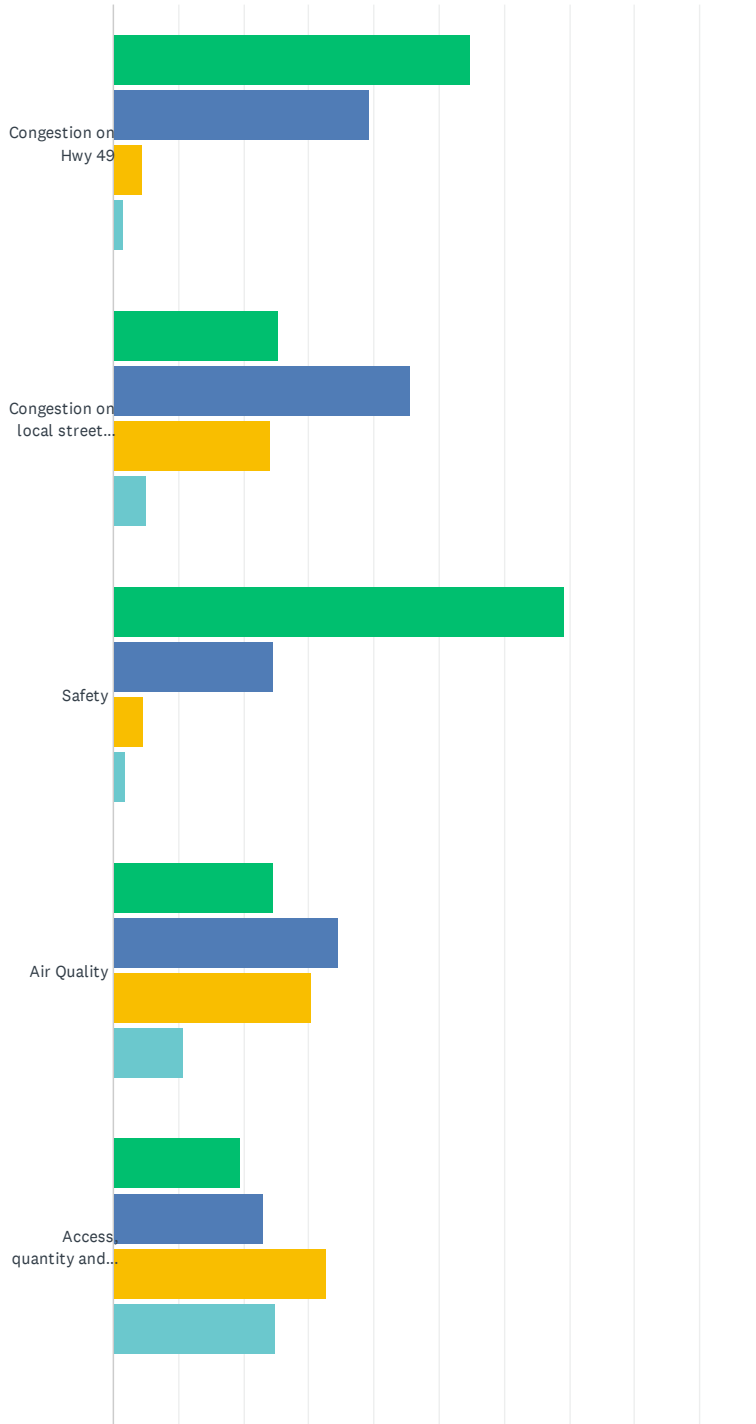
	VERY DISSATISFIED	DISSATISFIED	UNSURE	SATISFIED	VERY SATISFIED	N/A	TOTAL	WEIGHTED AVERAGE
Walking	34.88% 90	10.08% 26	5.04% 13	5.04% 13	0.78% 2	44.19% 114	258	3.59
Bicycling	32.03% 82	11.72% 30	5.08% 13	1.17% 3	0.78% 2	49.22% 126	256	3.75
Transit	13.28% 34	10.94% 28	12.89% 33	3.13% 8	1.56% 4	58.20% 149	256	4.43
Using Park and Ride	7.48% 19	6.30% 16	16.14% 41	5.51% 14	1.97% 5	62.60% 159	254	4.76
Driving	14.44% 39	40.00% 108	6.67% 18	34.07% 92	4.44% 12	0.37% 1	270	2.75



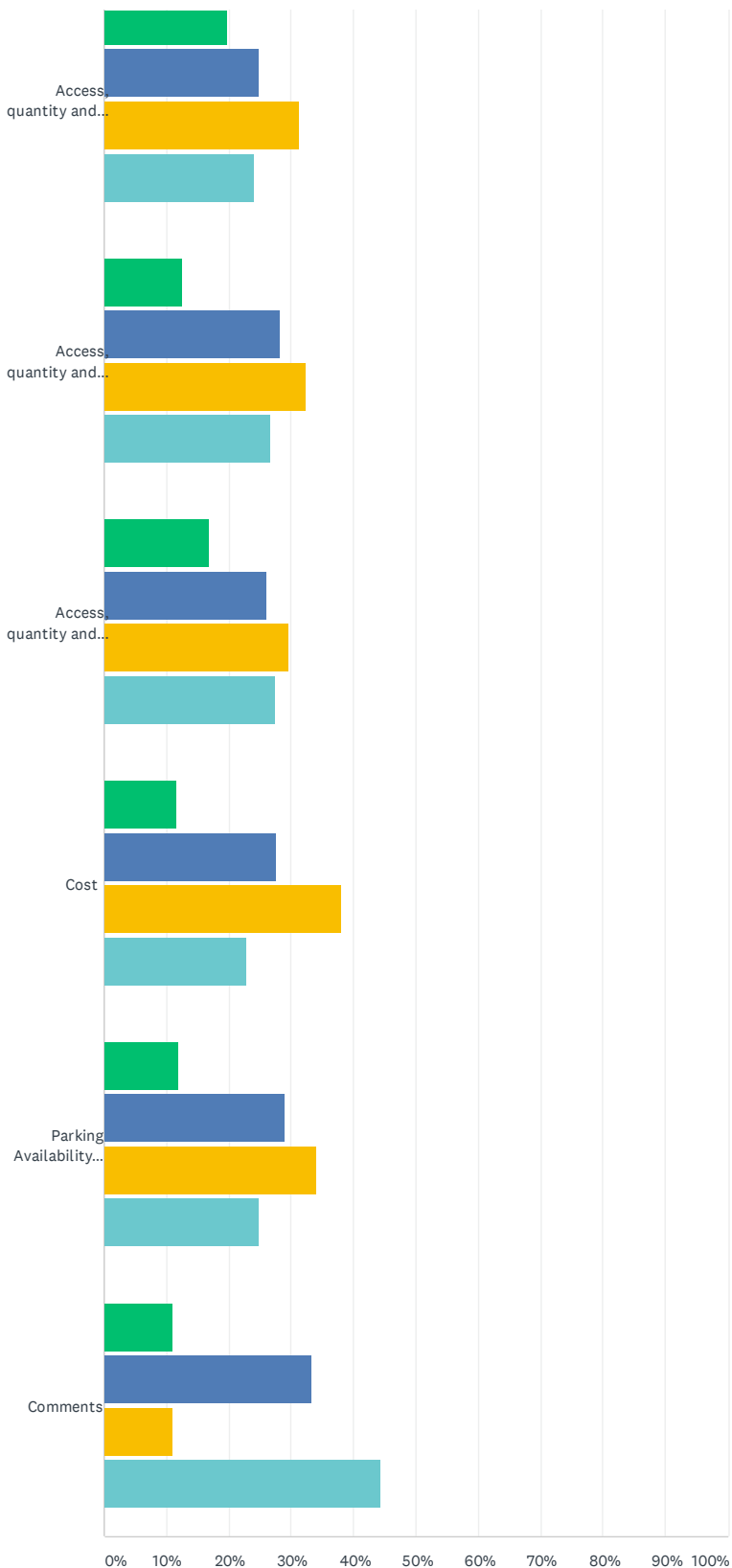
Hwy 49 CMCP Public Survey

Q4 Rate your level of concern about the following transportation issues along the Hwy 49 Corridor, including the freeway as well as the surrounding transportation system: Critical Concern, Moderate Concern, Low Concern, No Concern.

Answered: 270 Skipped: 1



Hwy 49 CMCP Public Survey





Hwy 49 CMCP Public Survey

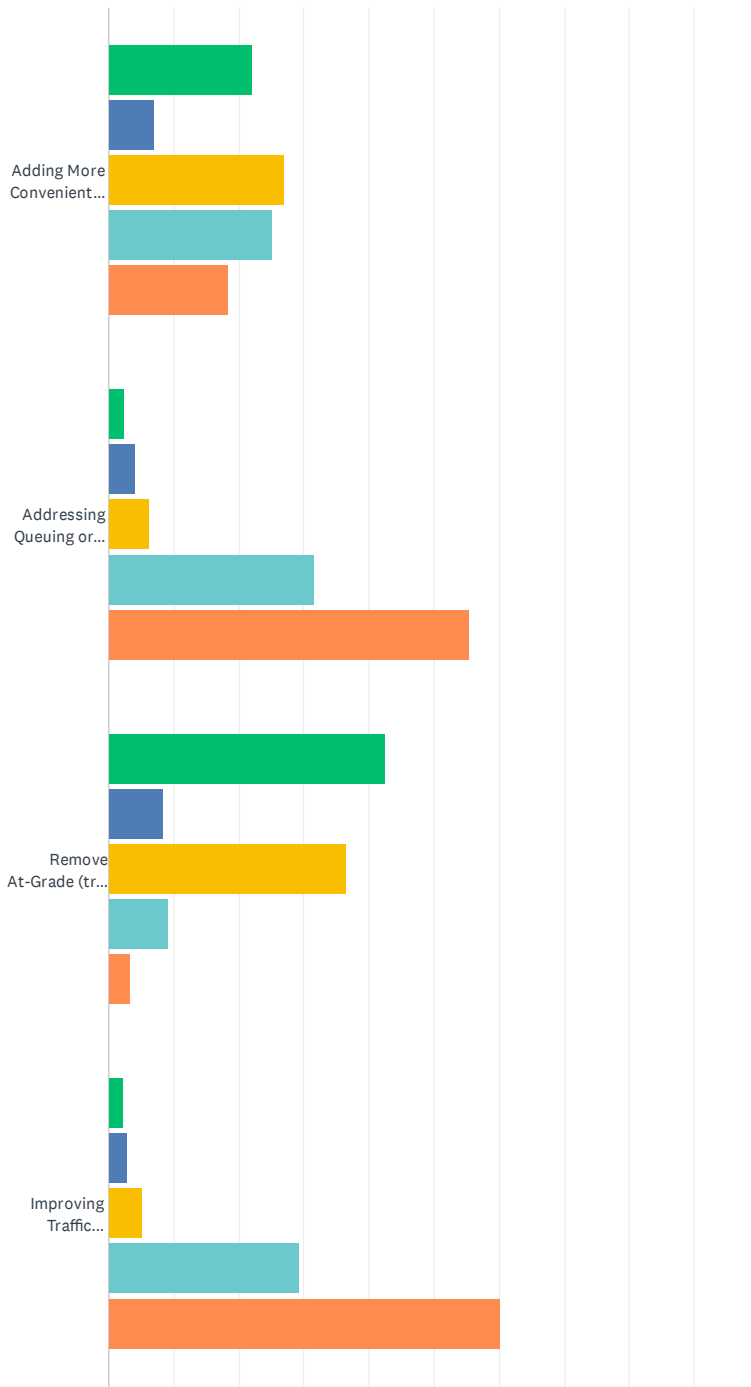
■ Critical Concern
 ■ Moderate Concern
 ■ Low Concern
 ■ No Concern

	CRITICAL CONCERN	MODERATE CONCERN	LOW CONCERN	NO CONCERN	TOTAL	WEIGHTED AVERAGE
Congestion on Hwy 49	54.81% 148	39.26% 106	4.44% 12	1.48% 4	270	1.53
Congestion on local streets and roads	25.29% 66	45.59% 119	24.14% 63	4.98% 13	261	2.09
Safety	69.17% 184	24.44% 65	4.51% 12	1.88% 5	266	1.39
Air Quality	24.52% 64	34.48% 90	30.27% 79	10.73% 28	261	2.27
Access, quantity and quality of bicycle facilities	19.54% 51	22.99% 60	32.57% 85	24.90% 65	261	2.63
Access, quantity and quality of pedestrian facilities	19.85% 52	24.81% 65	31.30% 82	24.05% 63	262	2.60
Access, quantity and quality of transit facilities	12.60% 33	28.24% 74	32.44% 85	26.72% 70	262	2.73
Access, quantity and quality of transit service	16.92% 44	26.15% 68	29.62% 77	27.31% 71	260	2.67
Cost	11.63% 30	27.52% 71	37.98% 98	22.87% 59	258	2.72
Parking Availability at Destination	11.88% 31	29.12% 76	34.10% 89	24.90% 65	261	2.72
Comments	11.11% 1	33.33% 3	11.11% 1	44.44% 4	9	2.89

Hwy 49 CMCP Public Survey

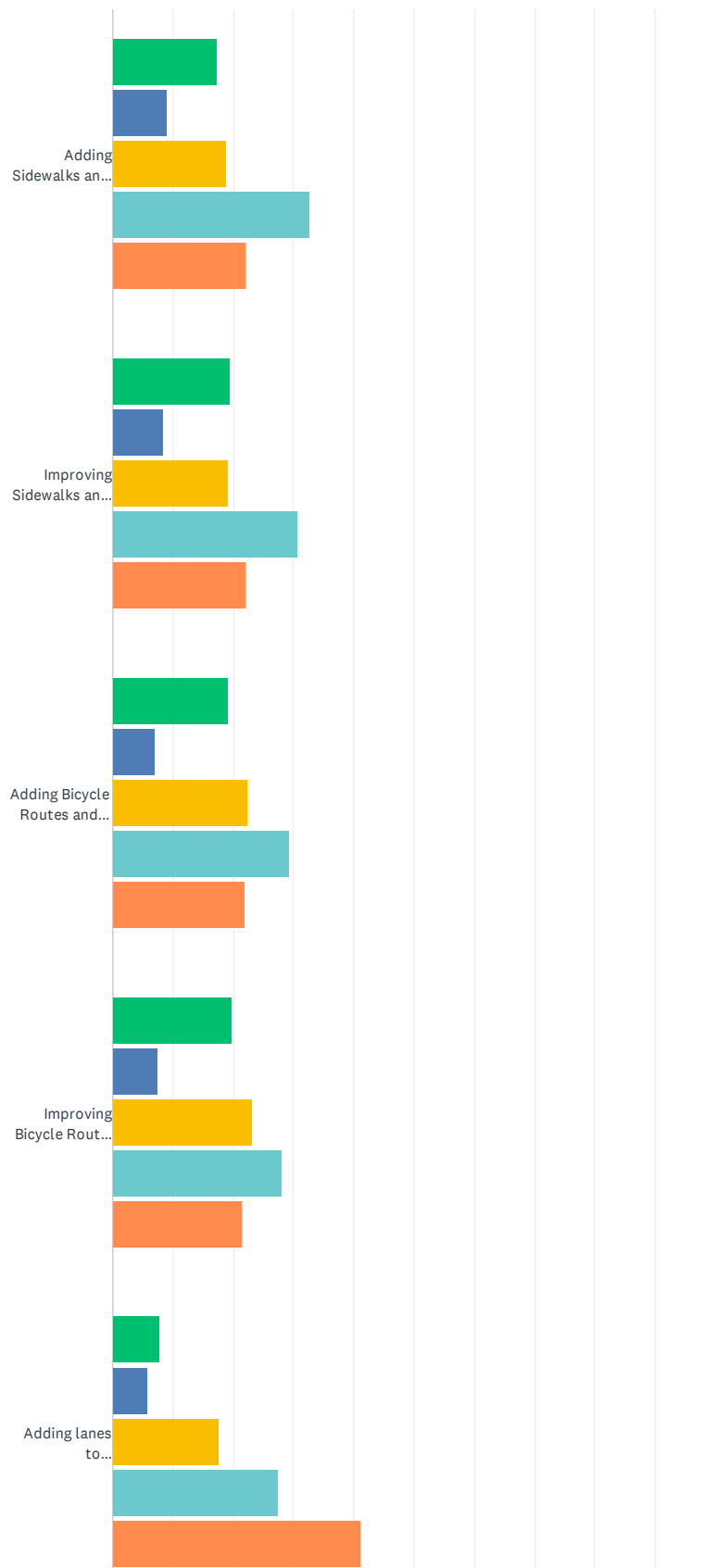
Q5 Rate the following improvements in terms of how important they are for improving the overall transportation system along the Hwy 49 Corridor, including the freeway as well as the surrounding transportation system: Not Important, Somewhat Unimportant, Neutral, Somewhat Important, Very Important.

Answered: 270 Skipped: 1

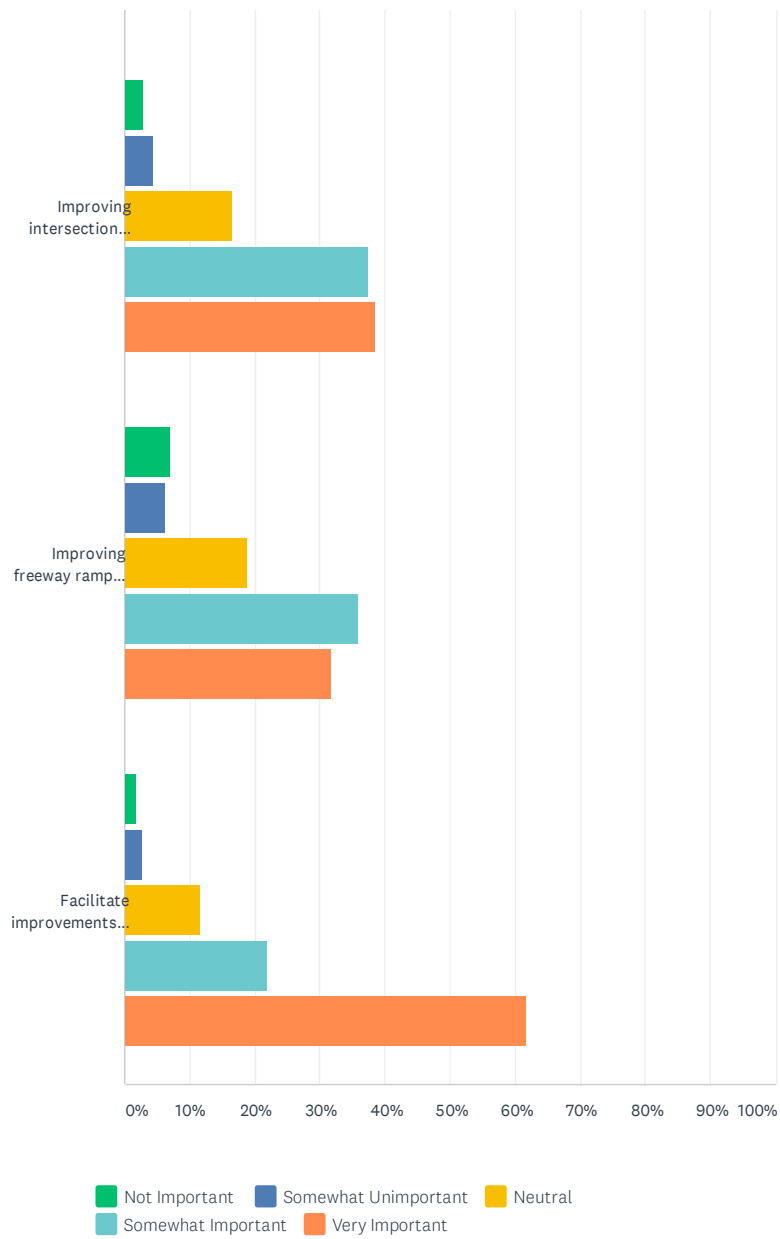




Hwy 49 CMCP Public Survey



Hwy 49 CMCP Public Survey





Hwy 49 CMCP Public Survey

	NOT IMPORTANT	SOMEWHAT UNIMPORTANT	NEUTRAL	SOMEWHAT IMPORTANT	VERY IMPORTANT	TOTAL	WEIGHTED AVERAGE
Adding More Convenient Transit Service	22.18% 59	7.14% 19	27.07% 72	25.19% 67	18.42% 49	266	3.11
Addressing Queuing or Traffic Backups	2.60% 7	4.09% 11	6.32% 17	31.60% 85	55.39% 149	269	4.33
Remove At-Grade (train tracks) Intersections	42.37% 111	8.40% 22	36.64% 96	9.16% 24	3.44% 9	262	2.23
Improving Traffic Operations (flow, travel time, etc.)	2.26% 6	3.01% 8	5.26% 14	29.32% 78	60.15% 160	266	4.42
Adding Sidewalks and Pedestrian Crossings	17.29% 46	9.02% 24	18.80% 50	32.71% 87	22.18% 59	266	3.33
Improving Sidewalks and Pedestrian Crossings	19.55% 52	8.27% 22	19.17% 51	30.83% 82	22.18% 59	266	3.28
Adding Bicycle Routes and Crossings	19.33% 52	7.06% 19	22.30% 60	29.37% 79	21.93% 59	269	3.28
Improving Bicycle Routes and Crossings	19.78% 53	7.46% 20	23.13% 62	27.99% 75	21.64% 58	268	3.24
Adding lanes to transportation system	7.81% 21	5.95% 16	17.47% 47	27.51% 74	41.26% 111	269	3.88
Improving intersections in surrounding transportation system	3.00% 8	4.49% 12	16.48% 44	37.45% 100	38.58% 103	267	4.04
Improving freeway ramps and interchanges	7.12% 19	6.37% 17	18.73% 50	35.96% 96	31.84% 85	267	3.79
Facilitate improvements for evacuations	1.89% 5	2.65% 7	11.74% 31	21.97% 58	61.74% 163	264	4.39



Appendix B: Public Comment

February 2022 Public Comments

SR 49 CMCP Public Comments		
Date	Full Comment	Category(s)/Caltrans Response
2/3/2022	Remove most of the stop lights on Highway 49; they are at intersections with minor side streets where there are never any cars! Thank you.	Congestion Caltrans Response: Thank you for your comment.
2/3/2022	I am all about the Segment 4 improvements! Signage, widening, lighting.. and restriping! This area is so dangerous due to lack of visibility, unable to see fog line, etc. I support ALL of this!	Support Comment Caltrans Response: Thank you for your comment.
2/3/2022	I am a Placer County resident and I support the plan to install a solid median between Lorensen and Lonestar Roads. Turns on and off the highway while crossing oncoming traffic have caused several fatal accidents over the years.	Support Comment Caltrans Response: Thank you for your comment.
2/3/22	As a recent public transportation user I am appalled by my lack of choice and where I can go. Yes there is a bus that goes from Auburn to Grass Valley, but I'll bet you've never been on it. The bus needs to have stops that serve the needs of people, instead of dumping you somewhere you didn't want to be, and waiting endlessly for another bus to take you where you almost need to be. So there must be more understandable and accurate information, and if you call the bus companies, that information needs to be up to date and accurate. I could report a recent totally frustrating experience trying to get accurate bus route info., a long tedious story. That's probably not in your job description. I am encouraged that you may be interested in expanding public transport: Rail service, that would connect smaller towns to transportation hubs without the mystery. I lived in Chicagoland for many years and enjoyed the trains that link communities. Everybody rode the trains. If you wanted to go to Chicago, you rode the train. Of course all the tracks that link towns around here have been torn up, big oil and the auto industry ruled and maybe still does. At least modern, comfortable Buses could be a start. I encourage you to ride incognito our current public transportation, if you haven't already done so. Knowledge is power.	Transit Caltrans Response: Thank you for taking the time to comment on the SR 49 CMCP Project List. I appreciate your thoughts. I have been on the Gold Country Stage (Nevada County Connects) bus many times in the past when I was the Amtrak California Thruway Bus manager, so I know how important the connectivity is. I have copied on this email Robin Van Valkenburg who is the manger for Nevada County Connects as Caltrans does not operate transit services in California, but I wanted him to be in the know about what potential stops you think should be in the corridor.
2/4/2022	The plan looks good to me my recollection is that in the original draft there were several roundabouts but I don't see those in this proposal were those deleted and if so I support the change.	Support Comment Caltrans Response: Thank you for your comments. The roundabouts are listed in Segment 2 on page 3 of the document. There has been some funding already allocated for those projects so they are active projects.



<p>2/4/2022</p>	<p>I just read the article in The Union newspaper about Caltrans' efforts to seek public input about Highway 49 and would like to provide my perspective. I was a commuter down Highway 20 from Grass Valley to Olivehurst for over 20 years and have experience driving on two lane or four lane roads. For years, I would also take 49 to get access to 80 but now I avoid it all costs; there's something about Highway 49 that feels unsafe and even treacherous.</p> <p>I hope you can provide a wider space between lanes going in opposite directions, and I hope you can add a concrete divider in that meridian area as well. There has been a tremendous increase in drivers taking the Highway 49 route creating a constant flow of traffic. I don't consider Highway 49 as an escape route if/when there's a need to evacuate because of wildfire. On a typical day it's already congested. Can the shoulders be widened to provide a safety net for vehicles? Or, can there be better lighting so when nightfall comes people walking or biking along the highway have an added safety measure?</p> <p>Highway 49 seems to be the perfect area to have shuttles which transport people between Grass Valley and areas of commerce near Bell Road. If local and express bus/rail routes were in place, especially in the median areas, that seems like it would not only decrease the number of cars but also play a role in decreasing speed of the cars that remain on the road.</p> <p>I'm so pleased Caltrans recognizes the need to improve Highway 49! There are so many ways you can make it a safer and smarter route for all of us.</p>	<p>Safety, Lane Widening, Evacuation Route, Transit</p> <p>Caltrans Response: Thank you for your comments. There are widening projects in the plan as well as a center divide with roundabouts project between Lorenson and Lone Star Roads at this time.</p>
<p>2/5/2022</p>	<p>I think that the ideas of addressing the congestion areas is good but it needs to be double lane both ways.</p>	<p>Congestion, Additional Lanes</p> <p>Caltrans Response: Thank you for your comment. There are projects in the plan that will address widening the highway.</p>
<p>2/5/2022</p>	<p>I have lived in Nevada County since 1983 so have seen many changes in my years here. I think, that by far, the most important thing is to widen 49 to two lanes all the way to I-80. I have lived in three different homes within a half mile of the 49 corridor during my time here and I can say without any doubt that I believe if we ever have a large scale disaster that leaving via Hwy 49 would be a disaster in itself. With numerous mobile home parks along the Hwy it add to the number of people using the road to leave the county. Not everyone will listen to recommendations to get out early which makes things even worse.</p> <p>I also feel that barriers between north and south bound lanes might reduce some of the head on collisions we seem to get. It feels like we get more than our share and I'm not sure why that is, hence my desire for barriers.</p> <p>Thanks for asking for input and please use this email to put me on any list you might have regarding upcoming changes and plans for Hwy 49.</p>	<p>Lane Widening, Lane Barriers</p> <p>Caltrans Response: Thank you for taking the time for your comments. We do have widening projects and median barriers (in certain places) listed in the plan (and some are active projects that need additional funding).</p> <p>The funding does take time to accrue from allocations and that's why we are applying for the discretionary funds with this corridor plan.</p>



<p>2/6/2022</p>	<p>I understand you are seeking additional feedback for the District 3 projects. I am a resident in Auburn Valley (off of LoneStar Rd / 49) and wanted to send some feedback and concerns.</p> <p>First off I'm ecstatic that this project is taking place. (Construct median barrier and roundabouts between Lorensen and Lonestar Roads)!!! Ever since I moved to this area, I have not felt safe entering and exiting Lonestar Rd north OR southbound. The traffic coming off the hill from Grass Valley flies at least 80 MPH on most days and i have had many near misses there traveling in both directions. In fact, it is so dangerous, I don't even use Lonestar anymore. I currently will only use Cramer Rd, or Bell Rd to access and egress from Hwy 49.</p> <p>I did attend the informational District 3 zoom call last year on this project (which i felt was very informative BTW), so feel well informed to comment. I'd like to voice my concern over access to and from Cramer Road. Cramer Road is a very well traveled road equal to or Lonestar. I think that cars turning in and out of Cramer should still be able to turn there, especially north to Grass Valley turning left from 49 onto Cramer. It didn't sound like the project was going to allow that, and I recall a concern about emergency vehicle access to and from Cramer road that I agree will be compromised. One shouldn't have to go all the way to Lonestar for a Uturn to get access Cramer Road. Can you please add a roundabout at Cramer Road as well? Or at least a SAFE way to turn onto and turn north out of Cramer Road? I think this is a very important access road for residents and for emergency vehicles. Thank you for your consideration.</p>	<p>Safety, Highway Access</p> <p>Caltrans Response: Thank you for your comment.</p>
<p>2/14/2022</p>	<p>I found your suggestions for state route 99 to be to our liking. No time frame is suggested for the various projects. It is also confusing as to what is the meaning of "Constrained and Unconstrained". The simple project that can be fixed immediately is the left turn in Gridley to Sycamore Street going north on 99. The light takes forever when it is clear with no traffic several blocks away. Often you can see the traffic coming and you could easily turn, but the light waits until the southbound traffic comes and then they have to stop. I am sure that can be fixed easily with all of your modern light changing options.</p>	<p>Support Comment, Congestion</p> <p>Caltrans Response: Thank you for your comment.</p>
<p>2/15/2022</p>	<p>I have read over the Highway 49 documents and have a few observations.</p> <ol style="list-style-type: none"> 1. The exhibits provided should be expanded to clearly show where the improvements are proposed. As the document now reflects there is a write-up for different segments and what is being proposed and showing this information graphically would be far easier to understand. 2. Over the past 10 years there has been a steady increase in traffic on the Highway 49 corridor. There have been a few small widening projects which have included left turn lanes and additional of acceleration lanes at Combie Road. But for the most part there have been very little investment in improvements to the road system within the Nevada County area of the Highway 49 corridor. At the county line south of Combie Road, Highway 49 is 4 full lanes with left turn areas and at Mc Knight on the north the Highway 49 corridor, the road turns into an actual freeway. In my view, Highway 49 should be widened to 4 full lanes with left turn areas and not be further developed on a piece meal basis. 3. Highway safety, good traffic flows and minimizing disruption during construction are all objectives that we should be considering. By only building a portion of Highway 49 into 4 full lanes we are we are not completing the project. We will still to need to come back and finish the project ay some point and it would make more sense to acquire whatever additional right of way needed and build all lanes as part of the project under consideration. 	<p>Congestion, Additional Lanes, Safety</p> <p>Caltrans Response: Thank you for your comment.</p>