South Coast AQMD

APPENDIX IV-B

SCAG's Regional Transportation Strategy and Control Measures

SCAG MISSION STATEMENT

Under the guidance of the Regional Council and in collaboration with our partners, our mission is to foster innovative regional solutions that improve the lives of Southern Californians through inclusive collaboration, visionary planning, regional advocacy, information sharing, and promoting best practices.

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Executive Summary

This Appendix IV-B (Appendix or Appendix IV-B throughout) describes the Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs) to address the 2012 annual PM2.5 standards in the South Coast Air Basin as part of South Coast Air Quality Management District's (South Coast AQMD) Draft 2024 PM2.5 State Implementation Plan (SIP). This Appendix IV-B is based on SCAG's Final 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS, also known as Connect SoCal) and 2023 Federal Transportation Improvement Program (FTIP), as amended. The RTP/SCS and FTIP were developed in consultation with federal, state and local transportation and air quality planning agencies and other stakeholders. The four County Transportation Commissions (CTCs) in the South Coast Air Basin, namely Los Angeles County Metropolitan Transportation Authority, Riverside County Transportation Commission, Orange County Transportation Authority and the San Bernardino County Transportation Authority, were actively involved in the development of the regional transportation measures of this Appendix. While SCAG will soon adopt the 2024 RTP/SCS, this PM2.5 Plan is based on the 2020 RTP/SCS as it was the latest approved RTP/SCS at the time of plan development.

This Appendix consists of the following three Sections.

Section I. Introduction

As required by federal and state laws, SCAG is responsible for ensuring that the regional transportation plan, program, and project are supportive of the goals and objectives of applicable Air Quality Management Plans and State Implementation Plans (AQMPs/SIPs). SCAG is also required to develop demographic projections and regional transportation strategy and control measures for the South Coast AQMD's AQMP/SIP.

As the Metropolitan Planning Organization (MPO) for the six county region comprising SCAG's jurisdiction, SCAG is obligated to develop an RTP/SCS every four years. The RTP/SCS is a long-range regional transportation plan that provides for the development and integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG region. The RTP/SCS also outlines certain land use growth strategies that provide for more integrated land use and transportation planning, and enhance transportation investments. The RTP/SCS is required by federal laws to demonstrate transportation conformity and also to achieve regional greenhouse gas (GHG) reduction targets set by the California Air Resources Board (CARB) pursuant to SB 375. Pursuant to the California Health and Safety Code, the RTP/SCS constitutes the Regional Transportation Plan/Sustainable Communities and Transportation Control Measures of the South Coast AQMD's AQMPs/SIPs.

In addition, SCAG develops the biennial FTIP. The FTIP is a list of multimodal capital improvement projects to be implemented over a six year period. The FTIP implements the programs and projects in the RTP/SCS.

Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs)

The SCAG region faces many critical challenges including demographics, transportation system preservation, transportation funding, goods movement, housing, air quality, climate change, and public health. Under the guidance of the goals and objectives adopted by SCAG's Regional Council, SCAG's governing board, the Connect SoCal was developed to provide a blueprint to integrate land use and transportation strategies to help achieve a coordinated and balanced regional transportation system. Connect SoCal represents the culmination of more than three years of work involving dozens of public agencies, 197 local jurisdictions in the SCAG region, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations. Connect SoCal was adopted by SCAG's governing board, the Regional Council, on May 7, 2020 for transportation conformity purposes only and on September 3, 2020 for all purposes.

To realize a sustainable and connected region, Connect SoCal includes a Core Vision that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets; five Key Connections that augment the Core Vision to address trends and emerging challenges while closing the gap between what can be accomplished through intensification of core planning strategies alone and what must be done to meet increasingly aggressive greenhouse gas reduction goals; as well as action-oriented transportation strategies and Sustainable Communities Strategy.

Core Vision

- Sustainable Development
- System Preservation and Resilience
- Demand & System Management
- Transit Backbone
- Complete Streets
- Goods Movement

Key Connections

- Smart Cities and Job Centers

- Housing Supportive Infrastructure
- Go Zones
- Accelerated Electrification
- Shared Mobility and Mobility as a Service

Transportation Strategies

- Preserve and Optimize Our Current System
  - Congestion Management
  - Congestion Pricing
  - Transportation Demand Management (TDM)
  - Transportation System Management (TSM)
- Completing Our Transportation System
  - Transit
  - Passenger Rail
  - Active Transportation
  - Transportation Safety
  - Highway and Arterial Network
  - Regional Express Lane Network
  - Goods Movement
  - Aviation
  - Technological Innovations and Emerging Technology

Sustainable Communities Strategy

- Focus Growth Near Destinations & Mobility Options
- Promote Diverse Housing Choices

- Leverage Technology Innovations
- Support Implementation of Sustainability Policies
- Promote a Green Region

Transportation Control Measures (TCMs)

Connect SoCal includes, as a subset of transportation strategies, SIP-committed transportation programs and projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing emissions from transportation sources and improving air quality, better known as Transportation Control Measures or "TCMs." In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2023 FTIP:

1. Transit and non-motorized modes;
2. High Occupancy Vehicle (HOV) Lanes and their pricing alternatives; and
3. Information-based strategies (e.g., traffic signal synchronization).

Attachment A of Appendix IV-B is a list of transportation control measure projects that are from SCAG's 2023 FTIP and specifically identified and committed to in the 2024 PM2.5 SIP. Per the federal Clean Air Act (CAA), these committed TCMs are required to receive funding priority and be implemented in a timely manner. In the event that a committed TCM cannot be delivered or will be significantly delayed, there must be a substitution for the TCM. It is important to note that as the SCAG's FTIP is updated every two years, new committed TCMs are automatically added to the applicable SIP from the previous FTIP.

Plan Emissions Reduction Benefits

If the future vehicle fleet mix and emission factors are held constant as those in the Connect SoCal base year 2016, Connect SoCal is estimated to yield a reduction in NOx emissions by about ~~1.5~~ 2.0 tons per day (tpd) in 2025, 4~~5~~.1 tpd in 2035, and 6.9~~8~~ tpd in 2045 compared with their respective Baselines without Connect SoCal. However, if accounting for mandated future improvement in vehicle fleet mix and emission factors, the estimated NOx emission reduction from Connect SoCal is reduced by ~~60~~ 65 to ~~73~~ 94 percent, because the vehicles as a whole are becoming much cleaner and reduction of every vehicle mile traveled from Connect SoCal yields less reduction in NOx emissions.

Plan Investment

The total expenditure for the various strategies in Connect SoCal is forecasted to be $638.9 billion for the entire six-county SCAG region. Connect SoCal has identified the same amount of total revenues from both existing and several new funding sources that are reasonably expected to be available.

Cost-Benefit Analysis

Implementation of Connect SoCal will secure a safe, efficient, sustainable and prosperous future for the SCAG region. To demonstrate how effective Connect SoCal would be toward achieving our regional goals, SCAG conducted a Connect SoCal vs. Connect SoCal Baseline cost-benefit analysis utilizing the Cal-B/C Model to calculate regional network benefits – essentially comparing how the region would perform with and without implementation of the Connect SoCal.

Compared with the alternative without the Plan, Connect SoCal would result in significant benefits to our region, not only with respect to mobility and accessibility, but also in the areas of air quality, economic growth and job creation, sustainability and environmental justice. Altogether, the transportation investments in Connect SoCal will provide a return of two dollars for every dollar invested compared with the Baseline alternative.

Section III. TCM Best Available Control Measure (BACM) and Most Stringent Measure (MSM) Analysis

The South Coast Air Basin has been reclassified as a Serious nonattainment area under the 2012 PM2.5 NAAQS effective December 9, 2020. In addition, the South Coast AQMD's 2016 AQMP included a 2012 PM2.5 Serious Area SIP that demonstrated attainment by 2025. However, due to significant concerns raised by the United States Environmental Protection Agency (U.S. EPA) regarding the PM2.5 SIP in response to a lawsuit filed against U.S. EPA for failure to act on the SIP, the South Coast AQMD withdrew the SIP to prevent U.S. EPA disapproval and initiated the development of a new SIP. Further, the new SIP needs and will include a request to extend the attainment date to 2030 consistent with CAA Section 188(e) to allow more time for implementation. As a result, the South Coast Air Basin is required to implement BACMs and MSMs including TCMs for the control of direct PM2.5 and PM2.5 precursors from on-road mobile sources. This section serves as the TCM BACM and MSM component for the South Coast 2012 PM2.5 standard SIP.

Following the applicable U.S. EPA guidance and updating the previous TCM BACM analysis in the South Coast AQMD's 2016 AQMP that has received EPA approval, the TCM BACM and MSM analysis consists of a review of the on-going implementation of TCMs in the South Coast Air Basin, a review of TCM measures implemented in other Moderate and Serious PM2.5 nonattainment areas as well as Serious PM10 nonattainment areas throughout the country, and a review of TCMs not implemented in the SCAG region. The analysis demonstrates that the TCM projects being implemented in the South Coast Air Basin are both the best available and the most stringent TCMs.

Section I. Introduction

Federal and State Requirements

The transportation conformity requirements of the federal CAA establish a need to integrate air quality planning and regional transportation planning. This integration presents the challenge of balancing the real need for improved mobility and accessibility with the equally important goal of cleaner air. As the federally-designated MPO for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the National Ambient Air Quality Standards (NAAQS). In other words, transportation plans, programs, and projects are required to not create new violations, worsen the existing violations, or delay timely attainment of relevant NAAQS.

In addition, SCAG is a co-producer, with the South Coast AQMD and CARB, of the AQMP/SIP for the South Coast Air Basin. SCAG has the responsibility of providing the demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies, as well as analyzing and providing travel activity data related to its planning responsibilities (California Health and Safety Code §40460).

Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The SCAG Region is the largest metropolitan planning area in the United States, encompassing 38,000 square miles. The region is divided into 15 subregions and is one of the largest concentrations of population, employment, income, business, industry and finance in the world. The six-county SCAG Region is home to about 19 million people, nearly half of the population of the State of California.

Federal and State regulations require SCAG, as the MPO and Regional Transportation Planning Agency, to develop an RTP/SCS every four years in order for our region's transportation projects to qualify for federal and state funding and approval. The RTP/SCS is updated to reflect changes in trends, progress made on projects, and to adjust the growth forecast for population and employment changes. The long-range RTP/SCS integrates land use and transportation strategies that will achieve CARB greenhouse gas emissions reduction targets and provides a vision for transportation investments throughout the region. Using growth forecasts and economic trends that project out over a period of more than 20 years, the RTP/SCS considers the role of transportation in the broader context of land use, economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies and Sustainable Communities Strategy to address our mobility needs, air quality and climate change challenges.

The RTP/SCS is developed through a collaborative process, guided by SCAG's governing board, the Regional Council, and its Policy Committees and Sub-committees, the Transportation Working Group, numerous technical advisory committees/working groups/task force, CTCs, subregions, local governments, state and

federal agencies, environmental and business communities, tribal governments, non-profit groups, as well as the general public.

Adopted by SCAG's Regional Council and approved by federal agencies, 2020 RTP/SCS or Connect SoCal is the currently conforming RTP/SCS for the SCAG region which includes the entire South Coast Air Basin.

The next 2024 RTP/SCS (Connect SoCal 2024) is currently under development. The Draft 2024 RTP/SCS was released for public review on November 2, 2023, and the Final 2024 RTP/SCS is scheduled to be adopted by SCAG's Regional Council in April 2024.

Federal Transportation Improvement Program (FTIP)

SCAG is also responsible for developing a biennial short-term (six year planning horizon) FTIP. SCAG develops the FTIP in partnership with the CTCs of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura, and California Department of Transportation (Caltrans) Districts 7, 8, 11, and 12. The FTIP is a multimodal list of capital improvement projects to be implemented over a six-year period. The FTIP identifies specific funding sources and fund amounts for each project. It is prioritized to implement the region's overall strategy for providing mobility and improving both the efficiency and safety of the transportation system, while supporting efforts to attain federal and state air quality standards for the region by reducing transportation related air pollution. The FTIP must include all federally funded transportation projects in the region, as well as all regionally significant transportation projects for which approval from federal funding agencies is required, regardless of funding source. The FTIP is developed to incrementally implement the programs and projects in the RTP/SCS. TCMs that are committed to in the applicable SIP are derived from the first two years of the prevailing FTIP.

Adopted by SCAG's Regional Council and approved for federal agencies, 2023 FTIP is the currently conforming FTIP for the SCAG region which includes the entire South Coast Air Basin.

Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs)

Introduction

Connect SoCal is a long-range regional plan that provides a blueprint to integrate land use and transportation strategies to help achieve greater mobility and sustainable growth. Transportation projects in the SCAG region must be included in Connect SoCal in order to receive federal funding and approval. Connect SoCal is comprised of an Introduction, six Chapters and 20 Technical Reports listed below:

- Chapter 0: Making Connections
- Chapter 1: About the Plan
- Chapter 2: SoCal Today
- Chapter 3: A Path to Greater Access, Mobility & Sustainability
- Chapter 4: Paying Our Way Forward
- Chapter 5: Measuring Our Progress
- Chapter 6 Looking Ahead
- Active Transportation Technical Report
- Aviation and Airport Ground Access Technical Report
- Congestion Management Technical Report
- Demographics and Growth Forecast Technical Report
- Economic and Job Creation Analysis Technical Report
- Emerging Technology Technical Report
- Environmental Justice Technical Report
- Goods Movement Technical Report
- Highways and Arterials Technical Report

- Natural and Farm Lands Technical Report
- Passenger Rail Technical Report
- Performance Measures Technical Report
- Project List Technical Report
- Public Health Technical Report
- Public Participation and Consultation Technical Report
- Sustainable Communities Strategy (SCS) Technical Report
- Transit Technical Report
- Transportation Conformity Analysis Technical Report
- Transportation Finance Technical Report
- Transportation Safety and Security Technical Report

Connect SoCal represents the culmination of more than three years of work involving dozens of public agencies, 197 local jurisdictions in the SCAG region, hundreds of local, county, regional and state officials, the business community, environmental groups, as well as various nonprofit organizations, and was founded on a broad-based public outreach effort. The implementation of a comprehensive and coordinated public participation effort undertaken by SCAG is documented in the Public Participation and Consultation Technical Report.[1]

Connect SoCal was adopted by the SCAG Regional Council on May 7, 2020, for transportation conformity purposes only and on September 3, 2020 for all purposes. Connect SoCal constitutes the transportation control strategy portion of the Final 2022 South Coast AQMP. A full list of the Connect SoCal projects can be found in the Project List Technical Report.[2]

Key Challenges in the Region

Our region is facing many formidable challenges related to affordable housing, natural and farmland conservation, transportation safety and security, public health, transportation system preservation and resilience, transportation access and mobility, funding the transportation system, and planning for

[1] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_public-participation-consultation.pdf?1606001825

[2] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_project-list_1.pdf?1606001744

disruption. For example, the region experiences significant travel delays (the time an average motorist spends stuck in traffic is 100 hours per year) and approximately 15 percent of the region's bridges are in poor condition. The SCAG region lost 21 percent of its farmland between 1984 (the year the farmland tracking began) and 2016. There are approximately 1,500 traffic fatalities annually. The annual cost of treating chronic disease (such as heart disease, strokes, chronic lower respiratory disease & diabetes) is $16.7 billion. Climate change adversely impacts traditionally underserved communities and 77 percent of residents in a flood hazard zones are minority.

Another regional challenge is the region's inability to meet federal air quality standards. Although air quality has improved significantly over the past decades, the SCAG region still experiences the worst air quality in the country. Almost the entire SCAG region fails to meet the health-based federal air quality standards for one or more transportation-related air pollutants. In addition to public health impacts from unhealthy air quality, the challenge of meeting health based federal air quality standards has serious implications for the RTP/SCS, the FTIP and transportation projects in the SCAG region.

A particularly pressing challenge is for the South Coast Region to meet the 2023 statutory deadline of attaining the 1997 ozone standard. Pursuant to the federal CAA, a Contingency Measure Plan was developed jointly by the South Coast AQMD and the CARB and subsequently submitted to the U.S. EPA. The Contingency Measure Plan[3] highlights the critical need for federal regulatory actions and/or funding to address emission sources under federal jurisdiction including aircraft, ships, trains and out-of-state trucks in order to meet the air quality standard. This is in addition to regulatory actions, programs and incentive funding South Coast AQMD and CARB have developed to achieve emission reductions.

If the U.S. EPA disapproves the Contingency Measure Plan, a federal sanctions clock will be triggered which will lead to federal highway sanctions if the underlying deficiency cannot be resolved within 24 months. Highway sanctions restrict federal funding to transportation projects that expand highway capacity, nonexempt project development activities and any other projects that do not explicitly meet exemption criteria. If imposed, highway sanctions have the potential to impact billions of dollars of federal funding and tens of billions of dollars of important transportation projects in the SCAG region.

Transportation, especially the goods movement sectors, contributes to the overwhelming majority of air pollutant emissions causing ozone pollution. A comprehensive and coordinated regional solution including aggressive regulations, advancements in clean technologies, innovative solutions, and integrated land use and transportation planning from all levels of government and all stakeholders will be required to achieve the needed emission reductions from the goods movement sectors.

[3] South Coast AQMD, 2019, Contingency Measure Plan: Planning for Attainment of the 1997 80 ppb 8-Hour Ozone Standard in the South Coast Air Basin for the 1997 8-Hour Ozone NAAQS in the South Coast Air Basin, http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/1997-ozone-contingency-measure-plan/1997-8-hour-ozone-draft-contingency-measure-plan---120619.pdf?sfvrsn=10

Finally, the emission of air pollutants come from a wide range of sources and may be transported downwind. Therefore, a mitigation strategy should be in place to assist impacted communities, even if the emissions are not being locally produced.

Regional Goals and Guiding Principles

The development of projects, programs, and strategies are guided by the following goals and guiding principles that help carry out Connect SoCal's vision for improved economy, mobility, environment and healthy/complete communities. The plan explicitly lays out goals related to housing, transportation technologies, equity and resilience in order to adequately reflect the increasing importance of these topics in the region, and where possible the goals have been developed to link to potential performance measures and targets. The plan's guiding policies take these goals and focus them, creating a specific direction for plan investments.

Connect SoCal Goals

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system
4. Increase person and goods movement and travel choices within the transportation system
5. Reduce greenhouse gas emissions and improve air quality
6. Support healthy and equitable communities
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

Connect SoCal Guiding Principles

1. Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act[4] regional targets

2. Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability and safety, and that preserve the existing transportation system

3. Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities

4. Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices

5. Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions

6. Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies

7. Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience

Plan Strategies and Transportation Control Measures

To realize a more sustainable and connected region, Connect SoCal includes a Core Vision that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets; five Key Connections that augment the Core Vision to address trends and emerging challenges while closing the gap between what can be accomplished through intensification of core planning strategies alone and what must be done to meet increasingly aggressive greenhouse gas reduction goals; as well as action-oriented transportation strategies and Sustainable Communities Strategy.

[4] MAP-21 (The Moving Ahead for Progress in the 21st Century Act) was a two-year federal transportation authorization bill signed into law in 2012. Replacing MAP-21 in 2015, FAST Act (The Fixing America's Surface Transportation Act) authorizes $305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs

Core Vision

Rooted in the 2008 and 2012 RTP/SCS plans, Connect SoCal's "Core Vision" centers on maintaining and better managing the transportation network we have for moving people and goods, while expanding mobility choices by locating housing, jobs and transit closer together and increasing investment in transit and complete streets. The Core Vision includes:

- **Sustainable Development**: Through our continuing efforts to better align transportation investments and land use decisions, we strive to improve mobility and reduce greenhouse gases by bringing housing, jobs and transit closer together.

- **System Preservation and Resilience**: "Fix it First" has been a guiding principle for prioritizing transportation funding in the RTP for the last decade. The cost of rebuilding roadways is eight times more than preventative maintenance. Preservation of the transportation system can extend the pavement life in a cost-effective manner and can also improve safety.

- **Demand & System Management**: Better managing the existing transportation system through demand management strategies and Intelligent Transportation Systems (ITS) yields significant mobility benefits in a cost-effective manner.

- **Transit Backbone**: Expanding the transit network and fostering development in transit-oriented communities is central to the region's plan for meeting mobility and sustainability goals while continuing to grow the regional economy.

- **Complete Streets**: Creating "complete streets" that are safe and inviting to all roadway users is critical to increasing mobility choices, reducing traffic fatalities and serious injuries and meeting greenhouse gas reduction targets.

- **Goods Movement**: The efficient movement of goods is critical to a strong economy and improves quality of life in the SCAG region by providing jobs and access to markets through trade. However, increased volumes of goods moving across the transportation system contribute to greater congestion, safety concerns and harmful emissions. It is critical to integrate land use decisions and technological advancements to minimize environmental and health impacts while fostering continued growth in trade and commerce.

Key Connections

Key Connections augment the Core Vision of the plan to address trends and emerging challenges while "closing the gap" between what can be accomplished through intensification of core planning strategies alone, and what must be done to meet increasingly aggressive greenhouse gas reduction goals. These Key Connections lie at the intersection of land use, transportation and innovation, aiming to coalesce policy

discussions and advance promising strategies for leveraging new technologies and partnerships to accelerate progress on regional planning goals. The Key Connections include:

- **Smart Cities and Job Centers**: Smart Cities connect people, vehicles and infrastructure, allowing them to communicate in "real-time" through regional telecommunications networks. The Smart Cities and Job Centers strategy aims to catalyze investments across sectors to make "virtual access" a cost-effective and reliable option for all types of trips, expanding the air quality, congestion and VMT reduction benefits the region already realizes through teleworking. While Smart Cities strategies can be deployed universally, virtual access is particularly beneficial in rural communities where destinations are far apart. Connect SoCal specifically envisions intensified deployment in sub-regional job centers to encourage more growth of both jobs and housing in areas with already high employment density. The Smart Cities and Job Centers strategy enables this by using integrated information and communication technologies to improve the efficiency and performance of the transportation system. It incorporates transit demand management (TDM) measures that encourage carpooling and transit, and parking strategies that reduce the cost to build new employment facilities within job centers. Also, this strategy builds upon promising trends in "co-working"[5] to promote alternatives for long-distance commuters who prefer not to telecommute. Strengthening these locally significant employment centers allows the region to capitalize on the economic and mobility benefits of compact development, where housing and jobs are closer together.

- **Housing Supportive Infrastructure**: The extraordinary cost of producing housing is a significant barrier to growth throughout Southern California, but also specifically, to achieving the level of infill and transit-oriented development anticipated in Connect SoCal. The Regional Housing Supportive Infrastructure strategy will help make it quicker for local jurisdictions to produce critically-needed housing. The costs of building parking, and sewer/water infrastructure through Development Fees can range from 10 percent to nearly 25 percent of construction costs. By implementing tax-increment finance districts, jurisdictions can plan and implement housing supportive infrastructure. With the increase in use of ridesourcing, right-sizing parking strategies, enabled by technology, can reduce the overall cost of housing construction in Connect SoCal's Priority Growth Areas.

- **Go Zones**: Go Zones are geographic areas where a suite of mobility service options is provided together with incentives to reduce dependency on personal automobiles. This expanded mobility ecosystem can include increased transit, bike share, enhanced active transportation infrastructure and incentives—such as a fee on solo driving during peak traffic periods. Incentives would encourage the use of shared modes or shift less time sensitive trips to off-peak times. Revenues collected from the fee would be used to fund local transportation improvements and support sustainability goals by contributing to reductions in GHG emissions. Go Zones can be designed with policies and discounts that address equity concerns and promote mobility options for commuters of various income levels.

[5] Co-working refers to the shared use of an office space by employees of several different firms as an alternative to a home office or traditional fixed workplace location

- **Accelerated Electrification**: The Accelerated Electrification strategy offers a holistic and coordinated approach to de-carbonizing or electrifying passenger vehicles, transit and goods movement vehicles. Through greater coordination and deeper collaboration, this strategy aims to go beyond benefits achieved through state mandates alone. In the light-duty sector, Connect SoCal plans for greater incentives to increase sales of electric vehicles and strategies to increase the availability of charging infrastructure. Electric vehicles (EVs) currently make up only seven percent of new car sales, but the growth is healthy: in 2013 EVs made up just 2.4 percent of all new car sales statewide. For transit, in 2018 the California Air Resources Board voted to mandate purchases of electric buses. We can facilitate that process by working with transit agencies to ensure adequate charging stations and electricity rates. In the goods movement sector, the goal is to achieve a zero-emissions system as soon as possible while fostering early adoption of near-zero-emissions technologies in the near-term.

- **Shared Mobility and Mobility as a Service**: The future of transportation, like so many aspects of living in our region, will be shaped by technology and the ability to customize our choices. The rise of shared mobility and mobility as a service will allow residents to choose how to travel, depending on the time, distance or goal of their trip. "Shared mobility" refers to a broad range of transportation options, such as rental e-scooters and e-bikes, ridesourcing services like Uber and Lyft that some transit operators are partnering to provide first/last mile services or replace low performing bus routes, and on-demand app-based transit connections provided by vans and shuttles. "Mobility as a service," or MaaS, allows travelers to research and compare different transportation options from one screen and plan their trip accordingly. MaaS will also allow the traveler to book and pay for different segments of a multimodal trip with one click. This will make it increasingly critical that dense urban areas manage their curb space smartly, in order to ensure safe access for low-speed modes, ridesourcing providers, parking and local deliveries.

Transportation Strategies

The transportation strategies described in Connect SoCal are divided into two broad categories: Preserving and optimizing the region's current and future system and capital improvements by mode for completing the region's transportation system. In all, Connect SoCal includes $638.9 billion in transportation system investments through 2045.

Preserve and Optimize Our Current System

A top priority for Connect SoCal is to maintain and preserve the transportation infrastructure through a "Fix it First" principle. Funding provided by Senate Bill 1 (SB 1) offers an opportunity to strategically reinvest in the transportation network to realize an improvement in the conditions of the existing system. Connect SoCal allocates approximately $68 billion over the plan period to ensure a well maintained and resilient system for generations to come. Connect SoCal also seeks to optimize the existing transportation system to meet increased demand levels through the use of innovative strategies that leverage the existing transportation infrastructure. Key preservation and optimization strategies are:

Congestion Management Process. The Congestion Management Process (CMP) aims to provide effective management of the regional transportation system through monitoring and maintenance, demand reduction, analysis of local land use decisions, operational management strategies and strategic capacity enhancements. The CMP requires that roadway projects that significantly increase the capacity for single-occupancy Vehicles (SOVs) be addressed through a CMP. The CMP should provide an appropriate analysis of reasonable, multimodal travel demand reduction and operational management strategies for the corridor. If alternative strategies are neither practical nor feasible, appropriate management strategies must be considered for roadway capacity improvement projects that would increase SOV capacity.

Congestion Pricing. SCAG's planning efforts have focused on integrating pricing strategies to optimize operation, improve travel time reliability and offer travelers greater choices. Connect SoCal has identified three promising congestion pricing strategies: 1) Develop a network of express lanes to accommodate growing inter-county travel; 2) Establish a mileage-based user fees to generate a funding source for aging infrastructure and construction of other travel options; and 3) Develop Cordon/Area Pricing which involves charging a variable or fixed fee to drive into or within a highly congested area.

Transportation Demand Management. Transportation Demand Management (TDM) is a set of strategies that aims to reduce the demand for roadway travel, particularly from single-occupancy Vehicles (SOVs). Connect SoCal allocates $7.3 billion through 2045 to implement TDM strategies throughout the region, including ridesharing and providing first/last mile services to and from transit, supporting telecommuting and alternative work schedules, as well as use of other modes such as transit, rail, bicycling, and walking, or other micro-mobility modes.

Transportation Systems Management. Transportation Systems Management (TSM) employs a series of techniques designed to maximize the capacity and efficiency of the existing transportation system. Examples of TSM strategies include Corridor System Management Plans (CSMPs) and system management initiatives (e.g., variable speed limits, signal synchronization, ramp metering, etc.), High Occupancy Toll (HOT) lanes, collision avoidance systems, universal transit fare cards and improved data collection.

Complete Our Transportation System

Strategies for improving and expanding the many modes of transportation that make up the regional network must be integrated closely with our strategies for how we use land. The success of transit, passenger rail, walking, bicycling and other forms of active transportation, our highways and arterials, the efficient movement of goods and our regional airport system all depend on a close relationship with how our region uses land and how we grow. This is particularly true when it comes to improving and building a transit system that can best serve people in communities throughout our region.

Transit. Since 1991, the region has spent more than $77 billion on transit (in 2016 dollars). This trend is expected to continue, as the combined costs for transit capital projects and operations and maintenance (O&M) total nearly half of the investments in Connect SoCal. Connect SoCal includes significant investment across all transit modes, with $66.8 billion toward transit capital projects, $53.3 billion toward passenger rail, $173.9 billion for transit O&M, and $22.6 billion for passenger rail O&M from 2020 through 2045.

Passenger Rail. Connect SoCal vision for passenger rail in the SCAG region consists of four main elements: grow ridership, provide more frequent and new services, improve connectivity, and secure funding for Metrolink (commuter rail), Amtrak (intercity rail), and California High-Speed Rail and Southern California to Las Vegas (interregional rail).

Transportation Safety. Connect SoCal prioritizes the safety and mobility of the region's residents, including drivers and passengers, transit riders, pedestrians, and bicyclists. SCAG's Safety strategies are largely grounded in the State's Strategic Highway Safety Plan that helps member agencies interested in pursuing safety initiatives and strategies at the local level. SCAG outlines detailed strategies and actions that local jurisdictions and county transportation commissions can undertake to enhance safety in our region in the transportation safety and security report.

Active Transportation. Connect SoCal is expected to increase the number of people making active transportation trips by more than two million, increasing the mode share from 7.8 percent in 2016 to 10.4 percent in 2045. In order to achieve these outcomes, planned future investments are nearly doubled from $12.9 billion in the 2016 RTP/SCS to $22.5 billion in Connect SoCal. The active transportation investments in Connect SoCal are allocated across a range of active transportation strategies that address planning, policy making and implementation for both short and regional trips. Additionally, they are designed to improve environmental justice outcomes and enhance the safety and comfort of people walking and bicycling.

Highway and Arterial Network. Connect SoCal includes capital improvements that will address the choke points and gaps in the system, to ensure the system is operating optimally and provides adequate and equitable access to opportunities. Connect SoCal emphasizes working with partner implementing agencies to prioritize projects that preserve and optimize the existing highway and arterial network. Projects include interchange improvements, auxiliary lanes, general purpose lanes, carpool lanes, toll lanes and Express/HOT lanes.

Regional Express Lane Network. The regional express lane network integrates congestion pricing to optimize existing capacity on freeways and offer users greater travel time reliability and choices. The regional express lane network included in Connect SoCal builds on the successful implementation of the I-10 and I-110 Express Lanes in Los Angeles County and the recent extension of the SR-91 Express Lanes between Orange and Riverside Counties. Additional efforts underway include planned express lanes on the I-105 in Los Angeles County, the I-15 in Riverside County, the I-15 and the I-10 in San Bernardino County and the I-405 in Orange County and Los Angeles County.

Goods Movement. SCAG has developed key strategies to realize a regional vison that maintains regional economic competitiveness, promotes job creation and retention, increased freight mobility and safety, and mitigating environmental impacts. The key strategies include:

- Infrastructure investments to improve freight mobility

- Last mile freight
- Workforce development
- Truck bottleneck relief strategies
- Goods movement warehouse distribution
- Goods movement environmental strategies

Specific details of these goods movement strategies can be found in the Goods Movement Technical Report.[6]

Aviation. Connect SoCal focuses on air passenger and cargo activity from the perspective of how the traffic coming and going from the airports affects the region's roads, highways, and transit systems, and how to improve ground transportation access to the airport. Strategies include working with airports and transportation agencies on airport ground access projects, effective analysis and planning, and facilitating ongoing communication and collaboration between airports, transportation agencies and government.

Technological Innovations and Emerging Technologies. Emerging technologies in transportation and mobility are primarily developed and advanced by the private sector but can be accelerated and promoted by government regulation and incentives, and it is important that public agencies monitor the development of such innovations. Emerging technology in transportation and mobility are themes threaded throughout Connect SoCal. SCAG has completed wide-ranging analysis of recent and emerging technologies principally associated with light-duty vehicles that could potentially impact travel behavior and location choices in the region over the next 25 years.

SCAG recognizes that many new technologies provide consumer solutions and have made inroads in public acceptance due to advancements in smartphones, mobile banking, navigational apps and social networking. Improvements in regional mobility will therefore be derived from how technology is used rather than from any individual technological development. Moreover, strategies to use the benefits of emerging technologies to advance Connect SoCal goals should be viewed through the lens of improving health, safety, equity and mobility outcomes.

Sustainable Communities Strategy

As part of the state's mandate to reduce per-capita GHG emissions from automobiles and light trucks, Connect SoCal presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporate best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita vehicle miles traveled (VMT). The following strategies are

[6] https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_goods-movement.pdf?1606001690

intended to be supportive of implementing the regional Sustainable Communities Strategy (SCS). Several are directly tied to supporting related GHG reductions while others support the broader goals of Connect SoCal:

Focus New Growth Near Destinations and Mobility Options

- Emphasize land use patterns that facilitate multimodal access to work, educational and other destinations
- Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets
- Plan for growth near transit investments and support implementation of first/last mile strategies
- Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses
- Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods
- Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations)
- Identify ways to “right size” parking requirements and promote alternative parking strategies (e.g. shared parking or smart parking)

Promote Diverse Housing Choices

- Preserve and rehabilitate affordable housing and prevent displacement
- Identify opportunities for new workforce and affordable housing development
- Create incentives and reduce regulatory barriers for building context-sensitive accessory dwelling units to increase housing supply
- Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions

Leverage Technology Innovations

- Promote low emission technologies such as neighborhood electric vehicles, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space

- Improve access to services through technology such as telework and telemedicine as well as commuter incentives such as a "mobility wallet", an app-based system for storing transit and other multi-modal payments

- Identify ways to incorporate "micro-power grids" in communities, for example solar energy, hydrogen fuel cell power storage and power generation

Support Implementation of Sustainability Policies

- Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions

- Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations

- Support cities in the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment or value capture tools to finance sustainable infrastructure and development projects

- Work with local jurisdictions/communities to identify opportunities and assess barriers to implement sustainability strategies

- Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region

- Continue to support long range planning efforts by local jurisdictions

- Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy

Promote a Green Region

- Support development of local climate adaptation and hazard mitigation plans, as well as project implementation that improves community resiliency to climate change and natural hazards

- Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration

- Integrate local food production into the regional landscape

- Promote more resource efficient development focused on conservation, recycling and reclamation

- Preserve, enhance and restore regional wildlife connectivity

- Reduce consumption of resource areas, including agricultural land
- Identify ways to improve access to public park space

Transportation Control Measures (TCMs)

Connect SoCal includes, as a subset of transportation strategies, SIP-committed transportation programs and projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing emissions from transportation sources and improving air quality, better known as Transportation Control Measures or "TCMs." TCMs are either one of the types listed in CAA section 108, or any other measures for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Pursuant to U.S. EPA's Transportation Conformity Regulations, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs. In the South Coast Air Basin, TCMs include the following three main categories of transportation improvement projects and programs that have funding programmed for right-of-way and/or construction in the first two years of the 2023 FTIP:

1. Transit and non-motorized modes;
2. High Occupancy Vehicle (HOV) Lanes their pricing alternatives; and
3. Information-based Transportation Strategies.

Connect SoCal includes TCM type projects throughout the entire planning horizon (i.e., 2045) and are all part of the regional transportation strategy for the 2024 PM2.5 SIP. Those TCM type projects which have funding programmed for right of way or construction in the first two years of the prevailing FTIP are considered "committed" for air quality planning purposes in the applicable SIP. Per U.S. EPA's Transportation Conformity Regulations, these committed TCMs are required to receive funding priority and be implemented in a timely manner. In the event that a committed TCM cannot be delivered or will be significantly delayed, the TCM must be substituted for. It is important to note that as the SCAG's FTIP is updated every two years, new committed TCMs are automatically added to the applicable SIP from the previous FTIP. As a result of the TCM "rollover process," thousands of committed TCM projects have been implemented over the last two decades. The "rollover" of TCMs updates the AQMPs/SIPs to include new projects in addition to ongoing projects from previous FTIPs. As the FTIP gets adopted every two years, new TCMs emerge and completed TCMs get removed.

Plan Emissions Reduction Benefits

Based on the travel activity projections generated from SCAG's Regional Travel Demand Model, an estimate of emissions associated with on-road mobile sources can be generated using CARB's Emission Factor Model (EMFAC). Through this process, future emissions from on-road mobile sources can be

compared for the regional transportation system assuming implementation of the Connect SoCal versus the baseline (without Connect SoCal implementation). It is generally understood that potential future improvements in air quality deriving from Connect SoCal will likely be much smaller, since motor vehicle emissions have and will continue to be substantially reduced through technology (i.e., emission standards for new engines and in-use standards for existing fleets).

Under two different assumptions on future vehicle technology, Tables IV-B-1 and IV-B-2 compare VOC (ROG), ~~and~~ NOx, and PM2.5 emissions between implementation of Connect SoCal and the Connect SoCal Baseline[7] for the following years: 2025, 2035, and 2045. Specifically, the emission reduction benefits shown in Table IV-B-1 are based on the assumption that the EMFAC2021~~17~~ vehicle fleet mix and emission factors in the future years remain the same as in 2016 (the Connect SoCal base year); while the emission reduction benefits shown in Table IV-B-2 factor in the future improvements in the fleet mix and emission factors as reflected in the EMFAC2021~~17~~. Note that the Connect SoCal emission reductions in Tables IV-B-1 and IV-B-2 are not double-counted toward the emission reductions presented in the main report of the 2024 PM2.5 SIP because Connect SoCal is considered in the SIP air quality modeling baseline.

As shown in Table IV-B-1, if the future vehicle fleet mix and emission factors are held constant as those in the Connect SoCal base year 2016, Connect SoCal is estimated to yield a reduction in NOx emissions by about ~~1.5~~ 2.0 tons per day (tpd) in 2025, ~~4~~5.1 tpd in 2035, and 6.9~~8~~ tpd in 2045 compared with their respective Baselines without Connect SoCal. However, if accounting for mandated future improvement in vehicle fleet mix and emission factors, the estimated NOx reduction from Connect SoCal is reduced substantially by more than ~~half~~ 65 percent in 2025 to more than 94 percent in 2045, as shown in Table IV-B-2, because the vehicles as a whole are becoming much cleaner and reduction of every vehicle mile traveled from Connect SoCal yields less NOx reduction.

[7] Connect SoCal Baseline is defined as the future transportation system that will result from current programs without Connect SoCal's land use and transportation strategies. For Connect SoCal, the Baseline is based upon the adopted 2019 FTIP

TABLE IV-B-1
REGIONAL TRANSPORTATION EMISSIONS (ANNUAL AVERAGE) (TONS PER DAY)
ASSUMING CONSTANT 2016 VEHICLE FLEET MIX AND EMISSION FACTORS

	VOC (ROG)			NOx			PM2.5		
	2025	2035	2045	2025	2035	2045	2025	2035	2045
Connect SoCal	~~97.2~~107.5	~~99.9~~105.3	~~103.4~~105.6	~~227.2~~232.9	~~248.9~~224.9	~~280.5~~225.3	6.2	6.1	6.2
Connect SoCal Baseline	~~99.0~~109.5	~~104.2~~110.0	~~110.0~~106.6	~~228.8~~235.0	~~253.0~~230.0	~~287.3~~232.2	6.3	6.2	6.4
Connect SoCal Reduction	~~1.8~~ -2.0	~~4.4~~ -4.7	~~6.5~~ -1.0	~~1.5~~ -2.0	~~4.1~~ -5.1	~~6.8~~ -6.9	-0.1	-0.2	-0.2

~~Note: Calculated with EMFAC2017 Emission Model~~
Note: Calculated with EMFAC2021 Emission Model; PM2.5 emissions do not include fugitive dust.

TABLE IV-B-2
REGIONAL TRANSPORTATION EMISSIONS (ANNUAL AVERAGE) (TONS PER DAY)
BASED ON VEHICLE FLEET MIXES AND EMISSION FACTORS AS REFLECTED IN ~~EMFAC2017~~EMFAC2021

	VOC (ROG)			NOx			PM2.5		
	2025	2035	2045	2025	2035	2045	2025	2035	2045
Connect SoCal	~~51.1~~59.3	~~36.5~~42.2	~~31.8~~36.3	~~80.7~~75.2	~~66.6~~44.2	~~71.5~~37.4	3.9	3.6	3.7
Connect SoCal Baseline	~~52.0~~60.3	~~38.1~~44.0	~~33.8~~36.4	~~81.4~~75.9	~~67.7~~45.2	~~73.4~~37.8	3.6	3.8	3.7
Connect SoCal Reduction	~~0.9~~ -1.0	~~1.6~~ -1.8	~~2.0~~ -0.1	~~0.6~~ -0.7	~~1.1~~ -1.0	~~2.0~~ -0.4	-0.1	-0.1	0.0

~~Note: Calculated with EMFAC2017 Emission Model~~

Note: Calculated with EMFAC2021 Emission Model; PM2.5 emissions do not include fugitive dust.

TCM Emissions Reduction Benefits

To estimate the emission benefits of TCMs, the socio-economic data variables of Connect SoCal were held constant while the transportation network was modified to account for the TCMs in Connect SoCal (both TCM-type projects and committed TCMs). In other words, the TCM emissions reduction benefits are the difference between Connect SoCal with TCMs and Connect SoCal without TCMs. It should be noted that this analysis is done for illustrative purposes, as the regional transportation strategy is appropriately viewed on a systems-level basis, and not by its components since each of the individual transportation improvements and strategies affect each other and the system. Further, it should be noted that the TCM emission reductions in Tables IV-B-3 and IV-B-4 are not double-counted toward the emission reductions

presented in the main report of the 2024 PM2.5 SIP because the TCMs are part of Connect SoCal which is considered in the SIP air quality modeling baseline.

Under the same two different assumptions on future vehicle technology, Tables IV-B-3 and IV-B-4 show the results of the TCM modeling analysis for years 2021 and 2035 (which covers the 2012 $PM_{2.5}$ Serious attainment year of 2025 and the extended attainment year of 2030). Specifically, the emission reduction benefits shown in Table IV-B-3 are based on the assumption that the EMFAC2021~~17~~ vehicle fleet mix and emission factors in the future years remain the same as in 2016 (the Connect SoCal base year); while the emission reduction benefits shown in Table IV-B-4 factor in the future improvement in the fleet mix and emission factors as reflected in the EMFAC2021~~17~~.

As shown in Tables IV-B-3 and IV-B-4 and compared to previous AQMPs/SIPs, potential future improvements in air quality deriving from TCMs are consistently diminishing for two reasons. On one hand, motor vehicle emissions have and will continue to be substantially reduced through technology. On the other hand, most of the TCM projects in the South Coast Air Basin have been adopted into the SIP and have already been implemented. Thus, the emission reductions associated with these projects are now included in the Connect SoCal baseline emissions and no longer show up in the TCM benefit values.

TABLE IV-B-3
TCM EMISSIONS (ANNUAL AVERAGE) (TONS PER DAY)
ASSUMING CONSTANT 2016 VEHICLE FLEET MIX AND EMISSION FACTORS

	VOC (ROG)		NOx		PM2.5	
	2021	2035	2021	2035	2021	2035
Connect SoCal	~~96.6~~ 109.2	~~99.9~~ 105.3	~~215.8~~ 225.6	~~268.0~~ 224.9	6.0	6.1
Connect SoCal without TCM	~~97.1~~ 109.9	~~101.1~~ 106.6	~~216.2~~ 231.9	~~269.3~~ 226.3	6.2	6.1
TCM Reduction	~~0.5~~ -0.7	~~1.2~~ -1.3	~~0.4~~ -6.3	~~1.3~~ -1.4	-0.2	-0.1

~~Note: Calculated with EMFAC2017 Emission Model~~

Note: Calculated with EMFAC2021 Emission Model; PM2.5 emissions do not include fugitive dust.

TABLE IV-B-4
TCM EMISSIONS (ANNUAL AVERAGE) (TONS PER DAY)
BASED ON VEHICLE FLEET MIXES AND EMISSION FACTORS AS REFLECTED IN ~~EMFAC2017~~ EMFAC2021

	VOC (ROG)		NOx		PM2.5	
	2021	2035	2021	2035	2021	2035
Connect SoCal	~~63.9~~ 75.1	~~36.5~~ 42.2	~~119.7~~ 116.0	~~66.6~~ 44.2	4.3	3.6
Connect SoCal without TCM	~~64.2~~ 75.4	~~36.9~~ 42.7	~~120.0~~ 117.8	~~66.9~~ 44.5	4.3	3.7
TCM Reduction	~~0.3~~ -0.3	~~0.4~~ -0.4	~~0.3~~ -1.8	~~0.3~~ -0.3	0.0	0.0

~~Note: Calculated with EMFAC2017 Emission Model~~

Note: Calculated with EMFAC2021 Emission Model; PM2.5 emissions do not include fugitive dust.

Plan Investment

To accomplish the ambitious goals of Connect SoCal through 2045, SCAG forecasts expenditures of $638.9 billion. Forecasted revenues comprise both existing and several new funding sources that are reasonably expected to be available for Connect SoCal through its horizon year of 2045, which together total $638.9 billion. Reasonably available revenues include adjustments to federal gas tax rates, and replacement of gas taxes with more direct mileage-based user fees (or equivalent fuel tax adjustment). These and other categories of funding sources were identified as reasonably available on the basis of their potential for revenue generation, historical precedence and the likelihood of their implementation within the time frame of Connect SoCal. In accordance with federal guidelines, the Connect SoCal includes strategies for ensuring the availability of these sources.

Cost-Benefit Analysis

Implementation of Connect SoCal will secure a safe, efficient, sustainable and prosperous future for the SCAG region. To demonstrate how effective Connect SoCal would be toward achieving our regional goals, SCAG conducted a Connect SoCal vs. Connect SoCal Baseline cost-benefit analysis – essentially comparing how the region would perform with and without implementation of the Connect SoCal.

The cost-benefit analysis utilizes the Cal-B/C Model to calculate regional network benefits. It calculates and aggregates scenario benefits after travel impacts are evaluated using a regional travel demand model. SCAG's regional travel demand model data for Connect SoCal was summarized in one mile per hour (1-mph) speed bins to facilitate analysis. The benefit/cost ratio compares the incremental benefits with the incremental costs of multimodal transportation investments. The benefits are divided into the following four categories:

- Travel time savings resulting from reduced travel delay

- Air quality improvements
- Safety improvements
- Reductions in vehicle operating costs

For these categories, the economic values and parameters found in Cal-B/C Model are utilized in conjunction with SCAG's regional travel demand model outputs to estimate the benefits of Connect SoCal compared with the Baseline alternative. Most of these benefits are a function of changes in VMT and Vehicle Hours Traveled (VHT). Not all impacts are linear, as reductions in congestion may potentially either increase or decrease vehicle operating costs and emissions. Delay savings are reflected directly in the VHT statistics.

To estimate the benefit/cost ratio, the benefits in each category are converted into dollars and added together. These are then divided by the total incremental costs of the Connect SoCal transportation system investments to generate a ratio.

The results of the benefit/cost analysis indicate that the investments contained in Connect SoCal provide a return of $2.06 for every dollar invested. For this analysis, all benefits and costs are expressed in 2016 dollars. Benefits are estimated over the 25-year Connect SoCal planning period from 2020 to 2045. The user benefits are estimated using the Cal-B/C benefit/cost framework and incorporate SCAG Regional Travel Demand Model outputs. The costs include the incremental capital expenditures over the entire Connect SoCal planning period. Further information on the economic values represented in the Cal-B/C Model can be found at the following:

https://dot.ca.gov/programs/transportation-planning/economics-data-management/transportation-economics

Compared with the alternative without the Plan, Connect SoCal would result in significant benefits to our region, not only with respect to mobility and accessibility, but also in the areas of air quality, economic growth and job creation, sustainability and environmental justice. Some of the benefits of Connect SoCal implementation include:

- Increase the combined percentage of work trips made by carpooling, active transportation, and public transit by 3 percent, with a commensurate reduction in the number of commuters traveling by single-occupancy vehicle.
- Reduce VMT per capita by 5 percent and vehicle hours traveled per capita by 9 percent (for automobiles and light/medium-duty trucks) as a result of regional transit service.
- Increase transit use for work trips by 2 percent, as a result of improved transit service and more transit-oriented, mixed-use development.
- Reduce travel delay per capita by 26 percent.

- Create more than 264,500 new jobs annually due to enhanced economic competitiveness and improved overall regional economic performance. This more competitive economic environment would be the result of an improved regional transportation system and reduced levels of congestion.
- Reduce greenfield development by 29 percent. Conservation of open space and agricultural lands are achieved by focusing new residential and commercial development in higher density areas already equipped with the requisite urban infrastructure.
- Increase the share of new regional household growth occurring in High Quality Transit Areas (HQTAs) by 6 percent, and increase the share of new job growth in HQTAs by about 15 percent. With more people living and working in locations near convenient and efficient transit options, congestion levels will be reduced accordingly.

Connect SoCal prioritizes the attainment of all applicable federal and state performance requirements. The plan meets all federal and state performance requirements. The plan meets all federal provisions for transportation conformity as defined under the federal CAA and therefore demonstrates transportation conformity. Connect SoCal achieves per capita GHG emission reductions relative to 2005 levels of eight percent in 2020, and 19 percent in 2035, thereby meeting the GHG reduction targets established by the California Air Resources Board (ARB) for the SCAG region.

For more details of the cost-benefit analysis of Connect SoCal, please refer to 1) Chapter 5: Measuring Our Progress, 2) Economic and Job Creation Analysis Technical Report, and 3) Performance Measures Technical Report (https://scag.ca.gov/read-plan-adopted-final-plan).

Section III. TCM Best Available Control Measure (BACM)/Most Stringent Measure (MSM) Analysis

Introduction

The South Coast Air Basin has been reclassified as a Serious nonattainment area under the 2012 fine particulate matter (PM2.5) NAAQS, effective December 9, 2020. Additionally, the South Coast AQMD's 2016 AQMP included a 2012 PM2.5 Serious Area SIP that demonstrated attainment by 2025. However, due to significant concerns raised by the US EPA regarding the PM2.5 SIP in response to a lawsuit filed against U.S. EPA for failure to act on the SIP, the South Coast AQMD withdrew the SIP to prevent U.S. EPA disapproval and initiated the development of a new SIP. Furthermore, the new SIP needs and will include a request to extend the attainment date to 2030, consistent with CAA Section 188(e), to allow more time for implementation. As a result, the South Coast Air Basin is required to implement BACM and MSM, including TCM, for the control of direct PM2.5 and PM2.5 precursors from on-road mobile sources. This section serves as the TCM BACM and MSM component for the South Coast 2012 $PM_{2.5}$ standard SIP.

While there is not a formal federal guidance on TCM BACM or MSM, the U.S. EPA has provided general guidance on the process of identifying measures that constitute BACM and MSM for PM2.5 nonattainment areas based on Subpart 4, as described in its proposed rule for implementing the 2012 PM2.5 NAAQS. The rule was finalized and published in the Federal Register on August 24, 2016.[8]

The final rule establishes the following four-step PM2.5 BACM/BACT selection process mirroring the four-step PM10 BACM/BACT selection process for PM10 Serious nonattainment areas:

Step 1: Develop a comprehensive inventory of sources and source categories of directly emitted PM2.5 and PM2.5 precursors.

Step 2: Identify potential control measures.

Step 3: Determine whether an available control measure or technology is technologically feasible.

Step 4: Determine whether an available control technology or measure is economically feasible.

U.S. EPA's final PM2.5 rule clarifies that BACM is generally independent of attainment to reaffirm U.S. EPA's past interpretation of BACM as "those measures that best control sources' emissions without regard to whether such measures are needed for the purposes of attainment of the relevant NAAQS." In other words, "the test for BACM puts a 'greater emphasis on the merits of the measure or technology alone,' rather than on 'flexibility in considering other factors,' in contrast to the approach for determining RACM." BACM "should represent a more stringent and potentially more costly level of control" compared with RACM. U.S. EPA expects the BACM analysis, at least, to examine all measures analyzed in the RACM analysis. In addition, BACM should include control measures "not previously considered RACM for the area, as well as additional measures not previously evaluated in the RACM/RACT analysis." To identify new measures for consideration in a BACM analysis, U.S. EPA recommends evaluation of both existing and potential control measures from a wide range of sources such as other PM nonattainment areas throughout the country as well as summaries of control measures developed by regional planning organizations, state and local air quality consortia.

The final rule also establishes a four-step process for determining MSM, similar to the process for determining BACM but applying more stringent feasibility criteria with longer implementation timeline:

Step 1: Update emissions inventories;

Step 2: Identify potential MSM;

Step 3: Compare MSM to control measures already adopted in the SIP for the nonattainment area; and

[8] 81 FR 58010, August 24, 2015 (https://www.gpo.gov/fdsys/pkg/FR-2016-08-24/pdf/2016-18768.pdf)

Step 4: Adopt and implement any MSM that are more stringent than any measures that are already approved into the SIP.

Significantly, the final rule clarifies that the MSM requirement may not result in more controls or more emissions reductions than those resulting from the implementation of BACM, because BACM represents the best level of control feasible. Nonetheless, the final rule further clarifies that any measures that were rejected during the BACM analysis are required to be reanalyzed to see if they are feasible given the extended attainment date or improved feasibility overtime.

Additional guidance on issues to be considered in a TCM BACM and MSM demonstration can be found in the proposed or final actions that U.S. EPA has recently promulgated over various Serious area PM2.5 SIPs, particularly those for the South Coast Air Basin and the San Joaquin Valley.

Effective March 14, 2019, U.S. EPA issued its final approval[9] of the TCM BACM demonstration under the 2006 PM2.5 NAAQS Serious classification as part of its final approval of portions of the South Coast AQMD's 2016 AQMP, as detailed in the U.S. EPA's proposed action[10] on October 3, 2018. In its evaluation and approval of the TCM BACM demonstration, U.S. EPA highlighted two primary justifications: (1) A standardized program has been adopted by SCAG to continuously select and fund cost effective TCMs; and (2) The significant increase in funding for TCMs is guaranteed within the SIP implementation timeframe and beyond by the local transportation sales tax measures in the four counties in the South Coast air basin. U.S. EPA also acknowledged that SCAG's four-step TCM BACM analysis approach below is consistent with EPA guidance:

1) A review of the on-going implementation of TCMs in the South Coast;
2) A review of TCMs implemented in other moderate and serious $PM_{2.5}$ and serious PM_{10} nonattainment areas throughout the country;
3) A review of TCM measures that are not implemented in the SCAG region and the justifications for not implementing them; and
4) TCM BACM conclusions.

It is important to note that, as stated in the 2016 AQMP Appendix IV-C, SCAG's TCM BACM demonstration in the 2016 AQMP was prepared to address both the 2006 PM2.5 and the 2012 PM2.5 NAAQS Serious classification.

On March 27, 2020, U.S. EPA proposed to approve the TCM BACM and MSM demonstration in the San Joaquin Valley's Serious Area PM2.5 SIP to address the 2006 $PM_{2.5}$ standards.[11] In the proposed rule, due

[9] 84 FR 3305, February 12, 2019 (https://www.govinfo.gov/content/pkg/FR-2019-02-12/pdf/2019-01922.pdf)

[10] 83 FR 49872, October 3, 2018 (https://www.govinfo.gov/content/pkg/FR-2018-10-03/pdf/2018-21560.pdf)
[11] 85 FR 17382, May 12, 2020 (https://www.govinfo.gov/content/pkg/FR-2020-05-12/pdf/2020-09731.pdf)

to "substantial overlap in the source categories and controls evaluated for BACM and those evaluated for MSM," U.S. EPA presented their evaluation of the TCM BACM and TCM MSM together.

The U.S. EPA's evaluation of TCMs in the PM2.5 SIP cited that: (1) The current efforts of the eight MPOs to implement cost-effective TCMs following the Congestion Mitigation and Air Quality (CMAQ) cost effectiveness policy adopted by the MPOs and in the development of each RTP in the San Joaquin Valley; (2) The adopted policy provides a standardized process for distributing 20 percent of the CMAQ funds to projects that meet a minimum cost-effectiveness threshold, beginning in fiscal year 2011; and (3) The MPOs reevaluated the minimum cost-effectiveness standard during the development of their 2018 RTPs and 2019 FTIPs and concluded that they were implementing all reasonable TCMs. The U.S, EPA's review concluded that "these TCMs implement BACM and MSM for transportation sources" in the San Joaquin Valley, because the evaluation process followed by the Air District to identify potential TCM BACM and MSM are generally consistent with the $PM_{2.5}$ SIP Requirements Rule; District's evaluation of potential TCM is appropriate; The District have provided reasoned justifications for their rejection of potential measures based on technological or economic infeasibility. However, it is important to note that the TCM BACM and MSM demonstration is not included in EPA's final approval, effective August 21, 2020, of the San Joaquin Valley's Serious Area $PM_{2.5}$ Plan to address the 2006 PM2.5 standards.[12]

On July 14, 2023, U.S. EPA published in the Federal Register its proposed approval of portions of the San Joaquin Valley's Serious Area PM2.5 Plan to address the 1997 PM2.5 standards including the TCM BACM demonstration.[13] The U.S. EPA's review of TCM in the 1997 PM2.5 SIP notes that: (1) The current efforts of the eight MPOs to implement cost-effective TCMs following the Congestion Mitigation and Air Quality (CMAQ) cost effectiveness policy adopted by the MPOs and in the development of each RTP in the San Joaquin Valley; (2) The adopted policy provides a standardized process for distributing 20 percent of the CMAQ funds to projects that meet a minimum cost effectiveness threshold beginning in fiscal year 2011; and (3) The MPOs reevaluated the minimum cost effectiveness standard during the development of their 2018 RTPs and 2019 FTIPs and concluded that they were implementing all reasonable TCMs. The U.S. EPA's review concluded that "these TCMs implement BACM for transportation sources," because the evaluation process followed by the District to identify potential TCM BACM are generally consistent with the PM2.5 SIP Requirements Rule; District's evaluation of potential TCM is appropriate; The District have provided reasoned justifications for their rejection of potential measures based on technological or economic infeasibility; And all reasonable TCMs are being implemented and additional TCMs are being considered by the MPOs as part of the CMAQ cost effectiveness policy. U.S. EPA also acknowledged strategies adopted by the MPOs to meet their SB375 greenhouse gas reduction targets.

Based on the applicable U.S. EPA guidance outlined above and primarily following the approach of the approved TCM BACM demonstration in the South Coast AQMD's 2016 AQMP, the following five-step approach is used to determine BACM and MSM for TCMs in the South Coast Air Basin:

[12] 85 FR 44192, July 22, 2020 (https://www.govinfo.gov/content/pkg/FR-2020-07-22/pdf/2020-14471.pdf)
[13] 88 FR 45276, July 14, 2023 (https://www.govinfo.gov/content/pkg/FR-2023-07-14/pdf/2023-14687.pdf)

1) A review of emission reductions from implementation of TCMs in the South Coast;
2) A review of the on-going implementation of TCMs in the South Coast;
3) A review of TCMs implemented in other moderate and serious PM2.5 and serious PM10 nonattainment areas throughout the country;
4) A review of TCM measures that are not implemented in the SCAG region and the justifications for not implementing them; and
5) TCM BACM and MSM conclusions.

Review of Emission Reduction from Implementation of TCMs in the South Coast

Although it is for illustrative purposes, the implementation of all TCMs in the South Coast is roughly estimated to yield a reduction of only about 0.3-0.4 tpd of VOC or NOx emissions annually from 2021 through 2035. The analysis and the reasons behind such a moderate and decreasing TCM impact is detailed under the subsection "TCM Emissions Reduction Benefits" under the previous Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs).

Given the nature of TCMs as either one of the types listed in CAA section 108, or any other measures to reduce vehicle use or change traffic flow or congestion conditions, the potential effect of TCMs is likely to be further reduced overtime in California, particularly in the South Coast region. This is primarily thanks to the increasingly stringent regulatory requirements and higher incentives offered by both the ARB and the South Coast AQMD to accelerate zero-emission transformation of personal transportation in the near future and goods movement over the longer term.

Review of On-Going Implementation of TCMs in the South Coast Air Basin

In the South Coast Air Basin, TCM projects and programs are defined in the following three main categories per the applicable SIPs as documented in the SCAG's Final 2023 FTIP Guidelines:

- Transit, Intermodal Transfer Facilities, and Non-motorized Transportation Mode Facilities
- High Occupancy Vehicle (HOV) Lanes, High Occupancy Toll (HOT) Lanes, and their pricing alternatives
- Information-based Transportation Strategies

TCM Selection and TCM Rollover Process – TCMs in the South Coast Air Basin are developed[14] through a continuous and exhaustive process that replaced a typical process that developed TCMs each time a SIP was produced. Projects identified as TCMs in the RTP/SCS are tracked as they get programmed in the FTIP. Only projects that have money programmed for right-of-way and/or construction in the first two years of the FTIP are considered TCMs subject to the Clean Air Act timely implementation requirements. Approximately every two years, as the FTIP is updated, additional TCMs will be added to the South Coast AQMPs/SIPs based on the new FTIP and the FTIP Guidelines. The "rollover" of TCMs automatically updates the AQMPs/SIPs to include new projects in addition to ongoing projects from previous FTIPs. The "rollover" is monitored for adherence to the schedule established in the FTIP at the time a project is identified as a committed TCM. The identification of TCMs from the FTIP is agreed upon by both SCAG and the appropriate CTCs. As the FTIP gets adopted every two years, new TCMs emerge and completed TCMs get removed. This rollover process was included in the 1994 SIP and approved by the US EPA. The rollover process has been refined in the FTIP Guidelines adopted with every FTIP. The rollover process has worked remarkably well, and has resulted in hundreds of TCMs being implemented/constructed. Thus, the rollover process produces much more than RACM would produce and meets both BACM and MSM. This rollover process ensures that RTP/SCS projects that are potential TCMs will, through the rollover process, eventually become committed TCMs.

To illustrate the extraordinary past and future impact of the TCM rollover process, Table IV-B-4 summarizes the magnitude of major TCM infrastructure in the following four years:

- 2020: first year of the 2020 RTP/SCS
- 2025: statutory attainment year of 2012 $PM_{2.5}$ standards serious nonattainment area
- 2030: extended attainment year of 2012 $PM_{2.5}$ standards Serious nonattainment area
- 2045: planning horizon year of 2020 RTP/SCS

It shows that over the 25-year planning period, high occupancy lane miles will increase by 65 percent, transit bus operations will increase by more than 19,000 miles, express bus operations will increase by

[14] Rollover History: In the 1979 SIP, there were six TCMs adopted, most of which relied on Federal funding allocated or being allocated. However, in 1980, with the change in federal administration, all the federal funds were removed. So in the then new 1982 SIP, the 1979 measures were withdrawn, and new measures were adopted and subsequently approved by U.S. EPA. However, a lawsuit challenged the 1982 SIP and a court agreed and threw out the 1982 SIP, including the TCMs. The result was the 1979 TCMs were still operative, and until 1994 those TCMs had to be reported on for timely implementation. New AQMPs were developed and adopted, but lawsuits resulted in U.S. EPA having to do a Federal Implementation Plan (FIP). While the FIP was under development, the 1990 CAA amendments were passed. A lawsuit challenged the FIP process as being superseded by the new CAA amendments. However, a judge denied the challenge. Congress subsequently removed that FIP

As the 1993 SIP was being developed, all the parties desired a process that would be comprehensive and fully funded. Thus, the rollover process, with its guaranteed funding in the first two years of the TIP, was agreed upon and included in the SIP that was approved by U.S. EPA in 1994

about 9,000 miles, and both transit rail miles and bike lane miles will increase by about 180 percent respectively.

TABLE IV-B-5
MAGNITUDE OF MAJOR TCM INFRASTRUCTURE IN SCAG REGION 2020–2045

TCM Infrastructure Indicator	First Year (2020)	Attainment Year (2025)	Extended Attainment Year (2030)	Horizon Year (2045)	2020–2045 Increase	
					#	%
HOV and HOT Lanes (lane miles)	1,137	1,324	1,589	1,879	742	65%
Regular Transit Bus (operation miles[15])	451,464	467,478	466,010	470,896	19,437	4%
Express Bus (operation miles)	74,541	78,433	81,373	83,169	8,628	12%
Transit Rail (operation miles)	43,717	57,499	74,235	121,927	78,210	179%
Bikeway (Class 1-4) (miles)	5,069[16]	n/a	n/a	14,187	9,118	180%

TCM Funding – Funding for TCMs traditionally depended mostly on federal & state sources. But with gas tax revenues declining and both federal and state budgets constrained, local agencies in California asked the state legislature for permission to go to the voters in each county for a ½ percent sales tax for transportation. This required a two-thirds voter approval in each county, and all four counties in the South Coast Air Basin won approval. Extensions were subsequently approved in three counties: Orange County's Measure M sunsets in 2041, Riverside's Measure A sunsets in 2039 and San Bernardino County's Measure I sunsets in 2040; Los Angeles County has approved a permanent two percent sales tax (a combination of four ½ percent sales taxes - Proposition A, Proposition C, Measure R, and Measure M) as Measure M increases to one percent as Measure M sunsets in 2039.

As a result of these remarkable local sales tax measures, the mix of revenues in the current six-year 2023 FTIP is $21.8 billion local (60 percent), $8.5 billion state (24 percent), and $5.6 billion federal (16 percent) (see Figure 1); while in the last adopted 25-year 2020 RTP/SCS, the mix is $297.2 billion local (60.3 percent) (of which 69 percent is local sales tax), $154.8 billion state (31.4 percent), and $41.1 billion federal (8.3 percent). Note that the funding from the federal CMAQ program accounted for only about 13 percent of all federal transportation funding according to SCAG Revenue Model 2020 and will decline over the life of

[15] A transit route's operations miles or service miles is calculated by the number of transit services during a day times the route length

[16] Existing

the 2020 RTP/SCS due to the region achieving attainment or reducing the severity level of applicable air pollutants.

These local revenues fund mostly capital expenditures for TCM projects. For example, in the current 2023 FTIP, transit projects receive $8.8 billion, ITS/TDM/non-motorized about $2.7 billion, and HOV projects $459 million. In the 2020 RTP/SCS, transit projects receive $66.8 billion, passenger rail $53.3 billion, active transportation $17.7 billion, HOV/HOT lanes $13.4 billion, and TDM $7.3 billion. Major transit and passenger rail projects include the Metro Rail Regional Connector, the Crenshaw/LAX Line, the OC Street Car, the Arow/Redlands Rail, Metrolink's Southern California Optimized Rail Expansion (SCORE), and the Link Union Station (LinkUS). Major HOV/HOT lanes projects include HOV to HOT lane conversion and new HOT lane on I-405 in Orange County, new Express Lanes on I-10 in San Bernardino County, new HOV lane on US-101 in Ventura County, and new Express Lanes on I-15 in Riverside County.

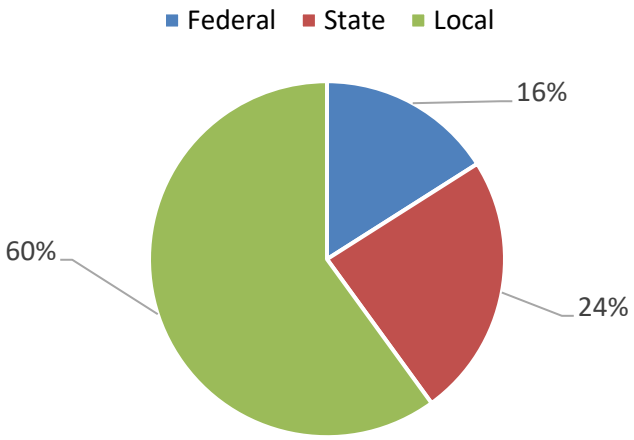

FIGURE IV-B-1
SUMMARY OF 2023 FTIP BY FUNDING SOURCE

Extraordinary efforts were undertaken to pass local sales taxes for transportation in each county (even after some did not reach the two-thirds necessary for approval, all subsequently met the approval threshold) and were successful. The effort to organize and pass these local sales taxes goes well beyond what could have been expected and provides substantial funding for TCMs which could not have been built without these local efforts. These efforts are certainly BACM and MSM, not just in revenue raised but without which, few of the major TCMs in transit rail, HOV, etc. could have been financed and constructed.

In summary, SCAG's robust and continuous TCM selection process and extraordinary local funding commitments clearly satisfy the latest criteria that U.S. EPA used to evaluate the TCM BACM and MSM demonstrations for the San Joaquin Valley and the South Coast PM2.5 Serious nonattainment areas:

- Adoption and enhancement of programs that reduce trips, travel and/or congestion – SCAG's rollover process ensures steady TCM infrastructure improvements through 2045 that will provide these reductions.
- Adoption of a standardized program to select cost-effective control measures – SCAG's FTIP Guidelines emphasize requirements for County assessments of control measure cost-effectiveness in TCM development and selection.
- TCM funding commitments – SCAG's multiple and long-term local sales tax commitments ensure substantial amount of guaranteed fund to implement TCM projects.

It is important to note that, as summarized in the previous Section II. Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs), SCAG's 2020 RTP/SCS also includes an ambitious SCS to achieve the mandated 2035 regional GHG emissions reduction target set by ARB through reduced per-capita vehicle miles traveled (VMT) from automobiles and light trucks.

Finally, it is important to note that SCAG updates and adopts a Public Participation Plan every RTP/SCS cycle to guide the development of RTP/SCS and FTIP. The adopted Public Participation Plan ensures extensive interagency consultation, public outreach, open houses, web access, opportunity for comment and public participation in TCM development and selection.[17]

Review of TCMs Implemented in Other Moderate and Serious PM2.5 and Serious PM10 Nonattainment Areas

SCAG performed a comprehensive review of available TCMs in California, as well as in other states. The review encompassed SIPs for all the other Moderate and Serious $PM_{2.5}$ nonattainment areas and all Serious PM_{10} nonattainment areas. A list of the SIPs reviewed is presented in Table IV-B-6.

We also reexamined the RACMs identified in Section III. RACM Analysis of SCAG's Final 2022 AQMP Appendix IV-C. In addition, SCAG's review considered TCMs discussed and reviewed at numerous TCWG meetings as part of the 2020 RTP/SCS, 2023 FTIP, and 2022 AQMP development. Finally, SCAG considered information from the following sources:

- CAA Section 108(f)(1)(A);
- RTP and FTIP Amendments;
- Interagency Consultation (TCWG); and
- Transportation Committee, Energy and Environment Committee, and Transportation Working Group meeting materials and input

[17] http://www.scag.ca.gov/participate/Pages/PublicParticipationPlan.aspx

TABLE IV-B-6
OTHER MODERATE AND SERIOUS PM2.5 AND SERIOUS PM10 NONATTAINMENT AREA SIPS REVIEWED

Nonattainment Area	Standard and Area Designation				TCMs Included in SIP
	PM2.5			PM10	
	1997	2006	2012	1987	
Allegheny County, PA			Moderate		No
Coachella Valley, CA				Serious	No
East Kern Co, CA				Serious	No
Fairbanks, AK		Serious			No
Imperial County, CA		Moderate	Moderate		No
Klamath Falls, OR		Moderate			No
Libby, MT	Moderate				No
Liberty-Clairton, PA	Moderate	Moderate			No
Owens Valley, CA				Serious	No
Phoenix, AZ				Serious	No
Plumas County, CA			Serious		No
Provo, UT		Serious			No
Sacramento, CA		Moderate			No
Salt Lake City, UT		Serious			No
San Francisco Bay Area, CA		Moderate			No
San Joaquin Valley, CA	Serious	Serious	Serious		Yes, TCMs include: Improved Transit, High Occupancy Vehicle Lanes, Traffic Flow Improvements, Park and Ride Lots, Ridesharing/Trip Reduction Programs, and Bicycle/Pedestrian Facilities
West Central Pinal, AZ		Moderate			No
West Pinal, AZ				Serious	No

Source: U.S. EPA, https://www.epa.gov/green-book

The review found that (1) Most of those areas did not include TCMs in their respective PM SIPs; (2) No new TCMs were identified for consideration from control programs outside of the SCAG region or in public meetings within the SCAG region since South Coast's 2016 AQMP; and (3) The South Coast region has a much more robust process and commits much greater level of funding for TCMs.

Review of Candidate Measures Not Implemented in the South Coast Air Basin

As part of the TCM RACM analysis in the Final 2022 AQMP Appendix IV-C, SCAG identified 24 candidate RACM measures that were not implemented within the SCAG region. These measures are candidates for BACM and MSM and thus have been re-examined for potential implementation given the more stringent evaluation criteria and longer implementation timeline for BACM and MSM. However, the re-evaluation reaffirms that these 24 measures do not constitute BACM or MSM for the reasons listed below:

- No Authority – SCAG lacks the authority to implement the twelve (12) measures in this category. Lack of authority satisfies the technical infeasibility test for selecting BACM and MSM measures.
- No or Non-quantifiable Emission Reduction Benefits – SCAG's BACM and MSM analysis determined that no or non-quantifiable emission benefits would result from the seven (7) measures in this category. Since the key determinant of a TCM is the quantified emission benefit, these measures which cannot constitute BACM or MSM.
- Not Feasible – Infeasibility justification for this category was cited for three (3) separate measures. Since these three measures are not feasible, they cannot constitute BACM or MSM.
- Not Cost-Effective – Not cost-effective justification for this category was cited for two (2) separate measures. Measures that are not cost-effective cannot constitute BACM or MSM.

A list of these 24 measures and the justifications for not implementing them as BACM or MSM are presented in Table IV-B-7.

Conclusion

This analysis clearly demonstrates that the TCM projects being implemented in the South Coast Air Basin constitute BACM and MSM.

- Thanks to increasingly stringent regulatory requirements and increased incentives offered to accelerate zero-emission transformation of personal transportation and goods movement, the emission reduction benefit from implementation of TCM is rather moderate and is expected to diminish overtime.
- The South Coast region has been implementing a much more robust TCM selection process, has committed a much greater level of funding for TCMs particularly from local sources, has substantially

increased and will continue to dramatically increase the TCM infrastructure than other PM2.5 nonattainment areas.

- No new TCMs were identified for consideration from TCM programs outside of the South Coast region.
- The re-evaluation of the exclusion justifications for the 24 measures presented in the last TCM RACM analysis re-confirmed that they cannot be implemented as BACM or MSM because there is no authority to implement, there is no or non-quantifiable emission reduction benefits, it is not feasible, or it is not cost-effective.

TABLE IV-B-7
CANDIDATE TCMS NOT IMPLEMENTED IN SCAG BACM AND MSM ANALYSIS

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
1	Improved Transit	1.7	Free transit during special events	Require free transit during selected special events to reduce event-related congestion and associated emission increases.	No *(The Mobile Source Air Pollution Reduction Review Committee has been co-funding free event center shuttle service demonstration projects)*	The Legislature significantly reduced authority of South Coast AQMD to implement indirect source control measures through revisions to the Health & Safety Code (HSC 40717.8). Transit agencies should decide individually whether this measure is economically feasible for them.	No Authority
1	Improved Transit	1.15	Maglev	Construct regional low-speed magnetic levitation transit	No	The region is already being serviced by light rail; Not Cost-effective.	Not Cost-Effective
3	Employer Transportation Management Plans (TMPs)	3.7	Merchant transportation incentives	Implement "non-work" related trip reduction ordinances requiring merchants to offer customers mode shift travel incentives such as free bus passes and requiring owners/managers/developers of large retail establishments to provide facilities for non-motorized modes.	No	Requires State legislation.	No Authority

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
3	Employer TMPs	3.12	Income Tax Credit to Telecommuters	Provide tax relief to employees telecommuting.	No	Requires State legislation.	No Authority
5	Traffic Flow Improvements	5.12	Ban left turns	Banning all left turns would stop the creation of bottlenecks although slightly increase travel distances.	No	Left turns are not allowed in some heavy-traffic streets. No clear demonstration of emission reduction benefits.	No or Non-quantifiable Emission Reduction Benefits
5	Traffic Flow Improvements	5.22	55 mph speed limit during ozone season	Self-explanatory	No	Reductions in freeway speeds are governed by California Vehicle Code 22354, which authorizes Caltrans to lower speeds after doing an engineering and traffic survey, which shows that the legislatively set maximum speed of 65 mph is more than is reasonable or safe. No consideration of emissions is contemplated under this statute. This measure is not feasible until the statute is changed.	No Authority

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
5	Traffic Flow Improvements	5.23	Require 40 mph speed limit on all facilities	Self-explanatory.	No	California Vehicle Code Sections 22357 and 22358 mandate a methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	No Authority
5	Traffic Flow Improvements	5.24	Require lower speeds during peak periods	Self-explanatory.	No	California Vehicle Code Sections 22357 and 22358 mandate methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	No Authority
7	Vehicle Use Restrictions	7.4	Adjust school hours so they do not coincide with peak traffic periods and ozone seasons	Measure to reduce travel during peak periods and ozone-contributing periods in the early morning.	No	School hours are dictated by many variables, including overcrowding and year-round schooling. This measure is not technically feasible.	Not Feasible
7	Vehicle Use Restrictions	7.6	Increase parking fees	Reduce driving by limiting parking through pricing measures.	No	Attorney General ruled South Coast AQMD lacks authority to implement this measure.	No Authority

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
7	Vehicle Use Restrictions	7.9	Limit the number of parking spaces at commercial airlines to support mass transit	Reduce airport travel by limits on parking at airports.	No	Regulatory agencies do not have the legal authority to make local land use decisions. It is at the discretion of the regional or local airport authority to make local land use decisions pertaining to airports. Additionally, it is necessary to have significant mass transit available at airports before this measure can be implemented.	No Authority
7	Vehicle Use Restrictions	7.10	No Central Business District (CBD) vehicles unless LEV or alt fuel or electric	Define high-use area and ticket any vehicles present unless they are low-emitting, alternative-fueled or electric.	No	The Legislature significantly reduced authority to implement Indirect Source Control Measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	No Authority
7	Vehicle Use Restrictions	7.14	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	No	No dedicated source of funding for this measure.	Not Feasible
9	Non-Motorized Road Use	9.6	Free bikes	Provide free bikes in the manner of Boulder, CO. Simple utilitarian bikes that can be used throughout the metro area and dropped off at destination for use by anyone desiring use.	No	Bike share is being implemented in the South Coast region; free bikes are not cost-effective; In addition, evidence suggests that bicycle theft is a problem in other programs.	Not Cost-Effective

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
9	Non-Motorized Road Use	9.9	Use condemned dirt roads for bike trails	Self-explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	Not Feasible
11	Extended Idle Control Programs	11.1	Limit excessive car dealership vehicle starts	Require car dealers to limit the starting of vehicles for sale on their lot(s) to once every two weeks. Presently, a number of new and used car dealers start their vehicles daily to avoid battery failure and assure smooth start-ups for customer test drives.	No	This measure was investigated by the South Coast AQMD and it was determined that, in contrast to colder climates where vehicles are started on a daily basis, vehicles in the South Coast are started much less frequently. No clear demonstration of emission reduction benefits.	No or Non-quantifiable Emission Reduction Benefits
11	Extended Idle Control Programs	11.3	Turn off engines while stalled in traffic	Public outreach or police-enforced program.	No	This measure raises safety and congestion concerns. No clear demonstration of emission reduction benefits.	No or Non-quantifiable Emission Reduction Benefits
11	Extended Idle Control Programs	11.4	Outlaw idling in parking lots	Self-explanatory and police-enforced program.	No	No clear demonstration of emission reduction benefits.	Not or Non-quantifiable Emission Reduction Benefits

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
11	Extended Idle Control Programs	11.5	Reduce idling at drive-throughs; ban drive-throughs	Mandate no idling or do not allow drive-through windows during ozone season.	No	No clear demonstration of emission reduction benefits.	No or Non-quantifiable Emission Reduction Benefits
14	SOV Reduction Programs	14.9	Increase State gas tax	Self-explanatory.	No	Need State legislation.	No Authority
14	SOV Reduction Programs	14.10	Pay-As-You-Drive Insurance	Self-explanatory.	No	Need State legislation. No clear demonstration of emission reduction benefits and does not advance attainment date.	No Authority
16	Voluntary Scrappage Programs	16.3	Demolish impounded vehicles that are high emitters	Self-explanatory.	No	South Coast AQMD Rule 1610 issues mobile source emission reduction credits in exchange for the scrapping of old, high emitting vehicles. No clear demonstration of emission reduction benefits due to small number of impounded old vehicles.	No or Non-quantifiable Emission Reduction

Section 108(f) Type	Section 108(f) Description	Measure No.	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	BACM/MSM Exclusion Category
16	Voluntary Scrappage Programs	16.4	Do whatever is necessary to allow cities to remove the engines of high emitting vehicles (pre-1980) that are abandoned and to be auctioned	Self-explanatory.	No	South Coast AQMD Rule 1610 issues mobile source emission reduction credits in exchange for the scrapping of old, high emitting vehicles. No clear demonstration of emission reduction benefits due to small number of abandoned or auctioned old vehicles.	No or Non-quantifiable Emission Reduction
17	Other	17.2	Promote business closures on high ozone days	Non-employer-based strategy to require local business to close on bad air quality days, thereby reducing travel.	No	No authority to implement; not economically feasible	No Authority

Attachment A: Committed Transportation Control Measures (TCMs)[18]

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ALHAMBRA	LAMIPMR114	Replace existing traffic signal controllers with 2070 ATC traffic signal controllers and firmware at 14 signalized intersections along Atlantic Blvd from Huntington Drive to I-10 freeway. Install fiber optic cable connectivity to all signalized intersections, ethernet switches, communication hubs, vehicle detection. Update traffic signal timing and synchronization. Design a new central traffic signal management system to monitor and control all signalized intersections in the City.	7/31/2025
ALHAMBRA	LAMIPMR116	Replace existing traffic signal controllers with 2070 ATC traffic signal controllers and firmware at 20 signalized intersections along Valley Blvd from west City limit to east city limit. Install fiber optic cable connectivity to all signalized intersections, ethernet switches, communication hubs, vehicle detection. Update traffic signal timing and synchronization. Design a new central traffic signal management system to monitor and control all signalized intersections in the City.	2/29/2024
ALHAMBRA	LAMIPMR117	Replace existing traffic signal controllers with 2070 ATC controllers and firmware at 20 signalized intersections along Garfield Avenue from Huntington Drive to I-10 Freeway. Install fiber optic cable connectivity to all signalized intersections, communication hubs, ethernet switches, vehicle detection systems. Update traffic signal timing and synchronization. Design new central traffic signal management system to monitor and control all signalized intersections in the City.	7/31/2025
ANTELOPE VALLEY TRANSIT AUTHORITY	LA9918864	Five (5) Expansion Electric Buses - two (2) 30-ft & three (3) 35-ft to decrease headways to every 15 minutes on Route 12.	6/30/2023
AVALON	LAF9600	City of Avalon Five-Corner Comprehensive Pedestrian Project: The project proposes to construct new-permanent sidewalks, median safety islands, traffic calming (round-about) and lighting in order to provide safer access for pedestrians. The total project is approximately .25 miles in length.	12/31/2023
BALDWIN PARK	LAF3507	South Baldwin Park Commuter Bikeway Project. Construct 3-mile commuter Class I bike path along San Gabriel River and Walnut Creek connecting to major employment centers on Baldwin Park Blvd.	12/31/2023
BALDWIN PARK	LATP17S029	Construct 2.3 miles of Class I shared-use recreational path ("trail"). Develop conceptual designs for 6.8 mile Class I recreational trail along Walnut Creek and 15.3 miles of on-street Class II and Class III bikeways.	6/30/2023

[18] *Projects may include TCM and non-TCM portions. Committed TCMs include only that portion of the projects that meets the definition of TCMs. Updated as of June 2023 to reflect the latest information on completion dates through approved amendments to 2023 FTIP*

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
BELL	LA9919091	Atlantic Ave is a principal north/south arterial corridor that conveys approximately 28,000 vehicles per day and provides access to the I-5 Freeway for City of Bell and neighboring cities. Improvements will include curb/gutter improvements, directional signage, median barrier upgrades, new pedestrian facilities, planting/landscaping restoration, sidewalk/curb cuts, new streetlights, and safety improvements. Sidewalk improvements are estimated at 6200 linear ft and the boulevard is 0.75 mile long.	12/31/2035
BURBANK	LA9918844	4 TRAFFIC SIGNALS UPGRADED TO ENABLE REAL TIME SIGNAL SYNCHRONIZATION PLANS AND MONITORING TRAFFIC. MAGNOLIA/MARIPOSA, MAGNOLIA/REESE, MAGNOLIA/SCREENLAND & VICTORY/ELMWOOD.	10/31/2026
BURBANK	LA9918853	SYNCHRONIZE 18 INTERSECTIONS ALONG VICTORY BLVD BETWEEN LINCOLN ST AND ALAMEDA AVE, SAN FERNANDO BLVD BETWEEN COHASSET STREET AND LINCOLN ST, AND BUENA VISTA ST BETWEEN SAN FERNANDO BLVD AND GLENOAKS BLVD.	9/30/2025
BURBANK	LA9918855	SYNCHRONIZE 32 TRAFFIC SIGNALS ALONG OLIVE AVE BETWEEN GLENOAKS BLVD AND ALAMEDA AVE AND ON GLENOAKS BLVD BETWEEN BUENA VISTA ST AND ALAMEDA AVE. REPLACE 4 TRAFFIC CABINETS AND ELECTRICAL UTILITY CABINETS.	9/30/2025
CALTRANS	LA0B951	Route 71: ROUTE 10 TO 0.14 MILE SOUTH SAN BERNARDINO COUNTY LINE - EXPRESSWAY TO FREEWAY CONVERSION - ADD 1 HOV LANE AND 1 MIXED FLOW LANE. (2001 CFP 8349, TCRP #50) (EA# 210600, PPNO 2741=EA 21060, PPNO 2741 + EA 21061, PPNO 2741N, EA 21062, PPNO 1741S) (TCRP #50) (Use Toll Credits as Local Match).	11/21/2028
CARSON	LA0G1130	Active Transportation Program - City-wide Bike and Pedestrian Improvements - The infrastructure component includes a Class II bike lane (1.07 mile) on Santa Fe Ave, high visibility crosswalks, countdown pedestrian signals, curb ramps, etc. The non-infrastructure component includes, education, encouragement, and enforcement programming that will occur over a three year period. Utilizing Toll Credits.	12/31/2020
COMMERCE	LA0G1704	Project includes traffic signal upgrades, signal interconnect installation, adoptive signal detection, control system, software, signal sync, traffic lane alignments, traffic signage, freeway on and off ramp improvements, and other items to improve traffic flow and capacity. 4 intersections will receive signal sync: 1) Triggs St, Telegraph Rd, Atlantic Blvd, Goodrich Blvd, and Ferguson Dr; 2) Telegraph Rd and Atlantic Blvd; 3) Atlantic Blvd and Eastern Ave; and 4) Eastern Ave and Stevens Pl.	6/30/2026
COMMERCE	LA9919026	Eastern Avenue Transit Hub. This project includes improvements in the following areas: Install new bus shelters, solar power digital displays providing arrival times, street striping, pavement, and lighting. Using Toll Development Credits of $8K in FY 22/23 and $218K in FY 23/24.	12/31/2026
COMPTON	LA0G1711	This Wilmington Avenue Regional Bikeway Corridor connects existing bikeways and lanes at Rosecrans Ave on the north and continues south to Victoria St. This project will provide bicycle elements including Class II bike lanes, pedestrian lighting, and missing sidewalks gaps to provide safe travels for pedestrians and bicyclists. This corridor will eventually connect the Compton Creek bike path at El Segundo with the Metro Blue Line Artesia Station. Project is 2.5 miles long.	3/31/2025

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
COMPTON	LA0G1713	This project aims to develop and upgrade the existing and obsolete citywide traffic signal system to a state of the art intelligent transportation system that synchronizes traffic signal along Rosecrans Av from city limits to city limits. There are 20 signal intersections planned for synchronization.	6/30/2025
COMPTON	LAF9530	Enhance safety/improve non-motorized transportation travels along Central Av by installing protective buffered bike lanes, improving intersection crossings and closing sidewalk gaps.	12/31/2023
COMPTON	LATP17S012	This project is the final design and construction of 29.68 miles of gap closure in the bike lane network in the Cities of Compton and Carson. Project elements include Class I, II, and III bike lane improvements including striping, bike sharrows, directional painted green lines and wayfinding signage.	12/31/2023
COVINA	LA0G1729	Citrus Ave includes 80-100 feet of public R-O-W, two new bicycle travel lanes for N/B and S/B traffic (5,950 linear ft. of bike lanes to be added), repairing sidewalks and curb ramps. Foothill Transit serves the Citrus Ave corridor and provides additional multimodal transportation connectivity. Proposed improvements will enhance first/last mile connectivity, road/concrete infrastructure, pedestrian/bicycle safety, and add tree canopy and drought tolerant streetscaping amenities.	4/30/2026
CUDAHY	LAF9605	The Cudahy City Wide Complete Streets Improvement Project focuses on the Atlantic Avenue Corridor and City Wide multimodal transportation improvements for the first/last mile. Project is approximately 1.1 miles long.	12/31/2023
CULVER CITY MUNI BUS LINES	LAF3729	Real-Time Bus Arrival Information System. Develop & install on 60 bus stop real-time bus arrival information system using intelligent transportation system (ITS) technology to disseminate "next bus" info to travelers. The project's physical component is located at bus stops and transit center within the City of Culver City. The non-physical component of the project is located on a web server.	10/31/2024
CULVER CITY	LAF7303	NETWORK-WIDE SIGNAL SYNC WITH VID & ARTERIAL PERFORMANCE MEASUREMENT SYSTEM FOR ATCS: (1) Optimizes signal coordination timing network-wide. (2) Upgrades major intersections with enhanced system detection and arterial performance measurement capabilities along Washington Bl, Sepulveda Bl, Jefferson Bl, and others. (16 signals that are synched)	12/31/2023
DIAMOND BAR	LA0G1708	Diamond Bar Blvd from Golden Springs Drive to Palomino Drive. Reconstruct asphalt and construct enhanced crosswalks, pedestrian walkways, green bicycle lanes, ADA ramps, and bioswales. Upgraded green bicycle lanes and pedestrian pathways span the entire length of the project in each direction. The total length of green bicycle lanes and pedestrian pathways are approximately 2,500 feet each.	12/31/2024
DOWNEY	LAF7311	DOWNEY CITYWIDE TRANSIT PRIORITY SYSTEM PROGRAM: (1) Synchronizes traffic signals along existing transit routes. (2) Installs new fiber optic communication along 5.5 miles of arterial streets to connect signals to the central traffic management center. (3) Installs and integrates transit priority system with the traffic signal system.	8/1/2024
DOWNEY	LAF9525	This project implements 17 miles of Class II bike lanes on eight roadways (seven of them with Road Diets) providing enhanced access to activity centers and multi-modal assets such as the Green Line and bike paths.	3/31/2024

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
EL MONTE	LA9918839	Improvements include 1.9 miles of new enhanced Class III bike lanes on Fern St and Elliot Ave from Sastre Ave to Mountain View Rd and from Mountain View Rd to North Brookside, and 1 mile of new Class II bike lanes on Durfee Ave from Elliot Ave to Valley Blvd and Valley Blvd from Durfee Ave to San Gabriel River Trail. Other improvements include pavement maintenance, repair, reconstruction on Fern St/Elliot Ave, from Sastre Ave to Mountain View Rd.	12/31/2026
EL MONTE	LATP21MPO101	Construct 1.1 mile Class IV two-way cycle track with landscape buffer; remove existing speed humps; install median curb extensions, high-visibility continental crosswalks, ADA improvements, & signage; roadway narrowing & street trees to calm traffic.	12/31/2030
EL MONTE	LATP23F101	Install 1.1-mile Class IV cycle track, Class III route (2100 feet), landscape buffer, x-walks, curb extensions, ADA ramps, conflict striping, widen sidewalk, add stop control at 1 intersection.	12/31/2032
EL SEGUNDO	LA9918809	Existing pavement shows widespread signs of deterioration throughout the corridor which constitutes a need for rehabilitation. Existing conditions on El Segundo Boulevard are missing ADA compliant curb ramps, larger traffic signal poles, dedicated bicycle facilities including bicycle detection, and adequate pedestrian crossings which will be addressed at specific locations as part of the project. 12,000 linear feet of bike lanes (Class II and Class III) will be installed.	11/15/2026
FOOTHILL TRANSIT ZONE	LA0G1234	Mt. San Antonio College (MSAC) Transit Center. The Transit Center includes 10 bus bays, 2 chargers for electric buses, a transit store, lighted sheltered wait areas, real-time bus arrival kiosks, and upgraded ADA and pedestrian access.	12/31/2024
FOOTHILL TRANSIT ZONE	LA0G1501	Construct Bus Layover Facilities Jointly by AVTA, LADOT & Foothill Transit	12/31/2023
FOOTHILL TRANSIT ZONE	LA9918847	Project will install and upgrade bus traffic signal priority at key segments on Colorado Boulevard corridor for service Lines 187. The signal priority on this corridor will improve the communication between the bus and intersection equipment to help buses along Colorado Boulevard improve travel times and schedule performance.	12/31/2026
GARDENA MUNICIPAL BUS LINES	LATR02020	Implement transit signal priority for 8.4 miles from the Harbor Gateway Transit Station to 120th Street in the city of Gardena. Also implementing real time arrival information through variety of media including smart phones, SMS texts, call centers, and website. Computer aided dispatching (CAD) system and automated vehicle location (AVL) system will also be implemented.	6/30/2024
GLENDALE	LAF7709	GLENDALE REGIONAL BIKE PARKING NETWORK: Provides 2 high capacity bike parking facilities and 20 wayfinding signs for bicycle users within the City of Glendale, specifically Glendale Larry Zarian Transportation Center and the Glendale Marketplace/Public Library.	12/31/2023
HAWAIIAN GARDENS	LA9919050	Traffic signal improvements for upgrading signal hardware and synchronizing eight intersections along Carson Street from Pioneer Boulevard to Bloomfield Avenue. The City of Hawaiian Gardens will coordinate the project's scope and timeline with Lakewood and Long Beach for the shared intersections. The synchronization of signals will be completed at the same time and along with the City's HSIP project. Utilizing $10K of Toll Credits to match STP-L funds in FY23 in CON. Toll Credits Used.	12/31/2030

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
HAWTHORNE	LA0G1546	Imperial Hwy Signal Improvements and Intersection. PA/ED, PS&E, ROW, Construction. Modify and upgrade 5 traffic signal, traffic striping, utilities, excavation, removal of existing pavement, concrete, asphalt and construction of curb, gutter, sidewalks and driveways. Signal Synchronization at: Imperial Highway at Prairie Avenue, Imperial Highway at Freeman Avenue, Imperial Highway at Hawthorne Boulevard, Imperial Highway at Ramona Avenue, Imperial Highway at Inglewood Avenue.	6/30/2024
HAWTHORNE	LA0G1548	Widen intersections modify and upgrade four traffic signal system, traffic striping, adjustment of utilities, excavation and removal of existing pavement, concrete, asphalt and construction of curb, gutter, sidewalks, driveways and ADA ramps. Signal Synchronization at: El Segundo Blvd at Ramona Ave. El Segundo Blvd. at Aviation Ave. El Segundo Blvd. at Isis Ave. El Segundo Blvd. at Van Ness Ave.	11/30/2024
HAWTHORNE	LAF9102	5 intersection locations; Signal improvement include Upgrade traffic signal controller and cabinet enabling, Rewiring of the signalized intersection to ensure communication between signal equipment; Upgrade pedestrian signals to count down type and push buttons, Install battery backup system to minimize disruption of traffic during power outage new vehicle detection including bicycle loops/sensors; new bike lane will be one mile (each way).	10/18/2023
HUNTINGTON PARK	LA0G1669	This project will include new signal poles, conduit, wiring, controller cabinets and video detection (not CCTV). The improvement locations include Slauson Ave at Alameda St, Slauson Ave at Santa Fe Ave, Slauson Ave at Miles Ave/Soto St, Slauson Ave at Boyle Ave/State St, Slauson Ave at Downey Rd/Malburg Way. Six new (6) signal sync intersections on Slauson at Alameda, Santa Fe, Pacific, Miles, Bickett, and State.	12/31/2024
INGLEWOOD	LA9919191	Includes but shall not be limited to preliminary investigation, roadway resurfacing, utility coordination, PS&E. Landscape, Environmental Assessment to comply with CEQA and pavement rehab. Full traffic signal modification complete with timing sheets at 15 intersections. Fiber optic improvements of 3 mi long on Crenshaw Blvd. New crosswalks, ramps, lane delineation & improved raised medians at 3 intersections. Install CCTV at 10 intersections & CMS at 2 intersections. NO NEW SIGNAL SYNC.	12/31/2032
INGLEWOOD	LAF7319	Inglewood ITS - PHASE V: (1) Designs and constructs computerized traffic control and monitoring systems, (2) Expands central traffic control and advance traffic management at 39 interseections, (3) improves 6.13 miles of fiber optic communications, (4) expands Closed Circuit Television Cameras (CCTV) at 10 intersections, (5) installs Changeable Message Signs (CMS) at 2 intersections, and (6) installs ew communication hubs at 3 intersections. NO SIGNAL SYNC.	12/31/2023
INGLEWOOD	LAF9307	City of Inglewood ITS phase VI project: 5,280 feet of fiber optic along Pincay Drive; Replace 170 controllers with Type 2070 controllers at twelve intersections; Traffic signal synchronization along Pincay Drive between Prairie and Crenshaw; Install changeable message sign at Century/Prairie; and Modernizing City Hall TMC to provide Adaptive Traffic Control and meet current standards.	6/30/2024
LAKEWOOD	LA0G1262	Lakewood Bl Regional Corridor Capacity Enhancement project (Del Amo Bl to north City limit) - Class II bike lanes (1.9 mile) in each direction, new sidewalk, street resurfacing, ADA & stormwater compliance, traffic signal modifications, drought resistant landscaping & irrigation, signing & striping, and utility undergrounding within the existing City right of way.	12/31/2023

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LANCASTER	LA0G928	SR-138 (SR-14) Avenue J Interchange. Project will include new northbound off-ramp and southbound on-ramp, mainline improvements to accommodate ramp modifications, improvements to Avenue J between 15th Street West and 25th Street West and traffic signal improvements. Project will reduce through lanes on Avenue J from 3 lanes to 2 lanes in each direction between 25th Street West and 15th Street West to provide bike lanes and wider sidewalks.	12/31/2023
LANCASTER	LA0G931	SR-138 (SR-14) Avenue M Interchange. Project will widen Avenue M from 10th Street to 20th Street West to provide a center turn-lane, bike lanes and sidewalks. The project includes geometric changes to the SR-138 (SR-14) ramps, intersection controls, and bike and pedestrian improvements from west of 20th Street West to 10th Street West.	12/31/2026
LAWNDALE	LAF7500	HAWTHORNE BOULEVARD CLASS II BICYCLE LANES: (1) Installs 1.0 mile of Class 2 bike lanes on Hawthorne Blvd for both directions. (2) Provides bicycle parking.	6/30/2021
LONG BEACH TRANSIT	LA0G1762	Expansion of fleet to take over a portion of the Metro Route 130 with up to (11) Battery Electric Buses (30'/35'40'). 5307 funds were awarded by BOS under the discretionary 15% suballocation. Federal funding for FY19 is $1.887M and FY20 is $1.548M. Adding an additional (7) buses for a total of (11) to the TIP. Utilizing TDC in FY23 for $901K to match 5307 funds. Transit Development Credits Used.	12/31/2025
LONG BEACH	LAF9314	The project consists of signal enhancements that will include synchronization and communications. Also are included are bicycle and pedestrian improvements and inclusion of the corridor into an Adaptive Traffic Control System	12/31/2024
LONG BEACH	LATP21F103	Transform Pacific Avenue from Ocean Blvd to PCH into a complete streets best practices corridor by upgrading 1.6 miles of Class III route to Class IV curb-protected bike lanes, protected intersections, and curb extensions. Non-infrastructure elements include pedestrian safety education, targeted messaging, and interactive activities that model desired safety behaviors.	12/31/2035
LOS ANGELES A	LA0G1380	Purchase of 170 solar-powered, real-time bus arrival information signs for bus stop improvement in the Los Angeles Promise Zone	12/31/2023
LOS ANGELES A	LA0G1566	Purchase of up to 120 electric 30' to 35' buses for the DASH program expansion	9/26/2024
LOS ANGELES A	LA0G901	Historic Los Angeles Streetcar	12/31/2023
LOS ANGELES A	LAE3764	Sepulveda Boulevard Closed-Circuit Television Traffic Signal Improvement Signal Sync	4/30/2025
LOS ANGELES A	LAF3644	Broadway Historic Theater District Pedestrian Improvements 4th-6th Streets. The project will improve pedestrian safety by installing curb extensions, widening sidewalks, improving pedestrian lighting, enhancing crosswalks, and provide pedestrian amenities; benches, street trees, landscaped buffers from traffic and 10 bike racks.	11/19/2025
LOS ANGELES A	LAF3647	Menlo Ave/MLK Vermont Expo Station Pedestrian Improvements. Improve pedestrian access to the new Expo station on Vermont Ave by installing sidewalks, landscaping, and lighting along Menlo Ave. and MLK Jr. Blvd. plus a median on MLK Blvd.	6/30/2024

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES A	LAF7123	MAGNOLIA BOULEVARD WIDENING (NORTH SIDE) - CAHUENGA BOULEVARD TO VINELAND: Instead of widening, it rescoped to include pedestrian and safety-related improvements such as curb extensions where appropriate, enhanced left turn protection at select locations, trees, additional safer crossings with the introduction of pedestrian hybrid beacons, sidewalk repairs, ADA-compliant access ramps, speed tables, storm drain extension, and additional catch basins.	10/1/2023
LOS ANGELES A	LAF7814	LADOT STREETS FOR PEOPLE: TRANSIT CORRIDOR PARKLETS AND PLAZAS: Installs 12 parklets and 3 plazas. The limits of the parklets will be equal to two curbside parking spaces (approx.. 40x 6). The plaza limit varies ranging from 2,000 to 6,000 SF.	12/31/2023
LOS ANGELES A	LAF9422	LADOT will procure seven (7) 30-ft Electric clean fuel vehicles to reduce headways on six selected DASH routes	4/30/2024
LOS ANGELES A	LAF9527	Project will construct a 3.1 mile cycletrack along Chandler Boulevard, connecting the Chandler and Orange Line Bike Paths and bridging a gap in the low-stress bicycle network	1/1/2023
LOS ANGELES A	LAMIP107	Transit infrastructure improvements include the procurement and installation or real-time arrival solar-powered bus signs at each bus stop on the DASH Highland Park/Eagle Rock route. Using TDC in FY22/23 for $194K to match CMAQ in CON.	12/31/2026
LOS ANGELES A	LARE1701A	Implementing Dynamic Corridor Ramp Metering System (DCRMS) in I-405 Sepulveda Pass Corridor (Interstate 405 from I-10 to SR101), a system-wide adaptive ramp metering strategy which simultaneously coordinates with arterial traffic signal operation. The system will dynamically adjust traffic according to current capacity restrictions caused by incidents or recurrent congestion. Improve traffic movement and access to freeway and major arterial including transit operation.	12/31/2022
LOS ANGELES A	LATP16S006	Boyle Heights Pedestrian Linkages. Pedestrian infrastructure improvements including sidewalk repairs, 3,400 linear feet of new sidewalk, and installation of pedestrian lighting, continental crosswalks, and curb ramps to improve connectivity within community and to 6th Street Viaduct Replacement Project. Utilizing Toll Credits.	12/31/2024
LOS ANGELES A	LATP17M014	Arts District Pedestrian & Cyclist Safety Project. The project will establish critical pedestrian and cyclist connections to and within the Arts District in Downtown Los Angeles which is a historic industrial neighborhood with a complex street system that challenges the mobility of all users whether they are on foot, on a bike or in a vehicle. Utilizing Toll Credits to match ATP funds.	6/30/2024
LOS ANGELES A	LATP19M013	Design and construction of 2.93 miles of greenway gap closure along the banks of the LA River, and adjacent on-street network of bicycle and pedestrian improvements	9/30/2026
LOS ANGELES A	LATP19M014	Safety and mobility improvements along 2.8 mile stretch of Broadway (Manchester Ave to Imperial Hwy) and Manchester Ave (Vermont Ave to Broadway). Includes a separated 4-mile Class IV cycle track), sidewalk and crossing improvements, signal upgrades, center median refuge island mods, and other improvements to slow speeding vehicles & increase pedestrian/bicyclist safety, plus pedestrian lighting, street trees, & pedestrian/bicyclist amenities, such as benches, bike racks, and trash receptacles.	12/31/2030

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LA0D465	Colima Road-City of Whittier Limits to Fullerton Road, for a total distance of 4.9 miles. The project will widen Colima Rd by up to six feet at spot locations and restripe to accommodate three through lanes in each direction. A Class II bikeway from the City of Whittier will be extended to Larkvane Rd, a distance of 1.2 miles, and bus pads will be replaced. Includes median landscaping.	6/30/2024
LOS ANGELES COUNTY	LA0G1291	Huntington Dr - San Gabriel Bl to 132' w/o Michillinda Ave: Construct approx. 7200ft buffered Class II bike lanes, upgrade curbs & sidewalks to meet standards. Add pedestrian access through the median @S San Gabriel. Add drought tolerant landscaping/hardscape inside median. Install new traffic signal at Huntington Dr & Madre St/Muscatel Av which may require tree removal.	6/30/2023
LOS ANGELES COUNTY	LA0G1486	The Project consists of design and construction of 1.86 miles of Class I bike path along Puente Creek and 0.37 miles of enhanced Class III bike route along Rimgrove and Witzman Drive adjacent to the Rimgrove County Park. The non-infrastructure portion of the Project includes bicycle and pedestrian safety education and encouragement training workshops and rodeos to students at 3 elementary, 1 middle, and 1 high school located near the proposed bikeway.	6/30/2023
LOS ANGELES COUNTY	LA9918952	This project involves synchronizing the traffic signals at the 35 intersections on Avalon Boulevard between 126th Street and Sepulveda Boulevard. The attached map is missing the two I-405 freeway ramps, Carson Street, and Watson Center Rd/228th.	3/31/2024
LOS ANGELES COUNTY	LAF1311	South Bay Forum Traffic Signal Corridors Project. Design & construction of multijurisdictional traffic signal synchronization, intersection operational improvements, and intelligent transp. system components on regional arterials. Synchronizes 50 consecutive intersections.	6/30/2023
LOS ANGELES COUNTY	LAF1312	Gateway Cities Forum Traffic Signal Corridors, Phase V. Design and construction of multijurisdictional traffic signal synchronization and intersection operational improvements on regional arterials in the Gateway Cities region. Includes 86 consecutive intersections.	6/30/2024
LOS ANGELES COUNTY	LAF1321	San Gabriel Valley Forum Traffic Signal Corridors Project. Design & construction of multijurisdictional traffic signal synchronization, intersection operational improvements, and intelligent transportation system components. Synchronizes 83 consecutive intersections.	6/30/2023
LOS ANGELES COUNTY	LAF3519	North County Bikeways. Install three Class II and three Class III bikeway segments, including signage, striping, road widening, & road shoulder improvements (approx. 3.88 miles of bike lanes and 3.18 miles of bike routes).	6/30/2024
LOS ANGELES COUNTY	LAF5315	San Gabriel Valley Forum Traffic Signal Corridors Project. This project includes 6 intersections at Myrtle Av/Peck Rd between Huntington Dr and Clark St and provides for system wide coordination, timing and operational improvements and traffic signal synchronization, equipment upgrades and intersection operational improvements (approx. 20+ signals).	6/30/2024
LOS ANGELES COUNTY	LAF5316	South Bay Forum Traffic Signal Corridors Project - systemwide coordination, timing and operational improvements and traffic signal synchronization, equipment upgrades and intersection operational improvements in South Bay region. 25 signals system wide. Additionally, this project will install any warranted and feasible roadway improvements along the routes to improve overall progression.	6/30/2024

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF7306	FOOTHILL BOULEVARD TRAFFIC SIGNAL CORRIDOR PROJECT: (1) Traffic signal synchronization, equipment upgrades and intersection operational improvements for 28 intersections along Foothill Bl between Lowell Av and Crown Av. (2) Installs two (2) Closed Circuit Television (CCTV) cameras and wireless network communications infrastructure which will provide for expansion of Advanced Transportation Management System (ATMS) along Foothill Bl.	6/30/2024
LOS ANGELES COUNTY	LAF7307	SAN GABRIEL VALLEY FORUM TRAFFIC SIGNAL CORRIDOR PROJECT: Implements ITS enhancements including synchronization and retiming of traffic signals, equipment upgrades, system detection, CCTV cameras, and changeable message signs to expand Advanced Transportation Management System (ATMS).	6/30/2024
LOS ANGELES COUNTY	LAF7310	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDORS PROJECT: Project area is Normandie Av between 92nd St and El Segundo Bl, Manhattan Beach Bl between Manhattan Av and Van Ness Av, and Hawthorne Bl between Imperial Highway and Manhattan Beach Bl. Project scope includes (1) Synchronization and retiming traffic signals, equipment upgrades, system detection, CCTV cameras, changeable message signs. (2) Upgrade traffic signal operations to be capable of time-based coordination.	6/30/2024
LOS ANGELES COUNTY	LAF7508	Vincent Community Bikeways. Install 2 miles of bike paths along the Big Dalton Wash between Irwindale Ave and Lark Ellen Ave and between Arrow Hwy and Citrus Ave, and 1.3 miles of bike lanes and 1.4 miles of bike routes to connect to the existing and proposed bikeways in the surrounding areas.	12/31/2023
LOS ANGELES COUNTY	LAF7700	WILLOWBROOK INTERACTIVE INFORMATION KIOSKS: Provides information to public transit users by installing 3 interactive kiosks displaying transit, neighborhood, and cultural information. The project will serve the Willowbrook area at Martin Luther King Jr. Hospital, Kenneth Hahn Plaza, and the Metro Willowbrook/Rosa Parks Blue and Green Line Station.	6/30/2024
LOS ANGELES COUNTY	LAF9302	The design and construction of traffic signal synchronization and intelligent transportation system improvements and installation of performance measurement devices in the San Gabriel Valley area.	12/31/2023
LOS ANGELES COUNTY	LAF9303	SOUTH BAY FORUM TRAFFIC SIGNAL CORRIDOR PROJECT. This project includes traffic signal synchronization on Crenshaw Boulevard between 120th Street and Rosecrans Avenue and Del Amo Boulevard between Avalon Boulevard and Susana Road (approx. 15+ signals) and also includes systemwide coordination timing, operational improvements and ITS.	6/30/2027
LOS ANGELES COUNTY	LAF9304	The design and construction of traffic signal synchronization and intelligent transportation system improvements and installation of performance measurement devices in the Gateway Cities area. There are 39 intersections in the TSSP route.	6/30/2027
LOS ANGELES COUNTY	LAF9504	E. Pasadena & E. San Gabriel Bikeway Access Improvements: Install approximately 4.8 miles of bike lanes and enhanced bike routes in the East Pasadena and East San Gabriel communities.	12/31/2022
LOS ANGELES COUNTY	LAF9511	South Whittier Community Bikeway Access Improvements: Construction of 3.1 miles of Class II and 1.8 miles of Class III bike facilities in the unincorporated County area of South Whittier along with various pedestrian intersection improvements.	6/30/2024

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LATP17M025	Install a 1.6 mile long and 17-foot wide walkway adjacent to existing Marvin Braude Bike Trail to close the gap between the existing walkways connecting Pacific Palisades and the City of Santa Monica. This will increase safety for cyclists/pedestrians which will increase usage and physical activity opportunities.	12/31/2023
LOS ANGELES COUNTY	LATR02018	The Whittier Boulevard Transit Signal Priority Project (Project) includes the deployment of ITS infrastructure to enhance arterial operations and monitoring in East Los Angeles. Wireless communications and upgraded controller equipment will be deployed along a critical segment of Whitter Blvd. that serves Metro Rapid Line 720 and provides parallel capacity to the 1-10 ExpressLanes.	6/30/2024
LOS ANGELES COUNTY MTA	2018FBX00	Los Angeles County; software modifications and hardware upgrades of fare collection equipment at Metro rail stations and on Metro and Municipal Operator buses to address equipment obsolescence, enhance system security, communicate in near real-time, and support future TAP mobile app and other new payment technologies.	12/31/2023
LOS ANGELES COUNTY MTA	LA0D198	CRENSHAW/LAX TRANSIT CORRIDOR - The Crenshaw/LAX Transit Corridor Project is an 8.5-mile light rail transit (LRT) line extending from the intersection of Crenshaw and Exposition Boulevards allowing for transfer to the Exposition Light Rail Transit line to a connection with the Metro Green Line at the Aviation/LAX Station (PPNO 4027A).	6/30/2024
LOS ANGELES COUNTY MTA	LA0F075	LIGHT RAIL TRANSIT FLEET-UP TO 193 NEW CARS SYSTEMWIDE. These expansion rail cars will be assigned to Expo II, Gold Line Foothill and Vehicle Replacements. PPNO 4025.	8/31/2023
LOS ANGELES COUNTY MTA	LA0G010	Regional Connector - Light Rail in Tunnel allowing through movements of trains, Blue, Gold, Expo Lines. From Alameda / 1st Street to 7th Street/Metro Center $59.2M of Section 5309 NS ARPA-CIG (Capital Investment Grant) in FY22.	6/30/2024
LOS ANGELES COUNTY MTA	LA0G1052	Metro Purple Line Westside Subway Extension Section 2 - Wilshire/La Cienega to Century City FTA ARPA - CIG (Section 5309 NS) $58.4M in FY22.	6/30/2026
LOS ANGELES COUNTY MTA	LA0G1162	Airport Metro Connector.	12/31/2024
LOS ANGELES COUNTY MTA	LA0G1167	Design and construction of streetscape, pedestrian and bicycle access improvements in the Little Tokyo and Arts District neighborhood of Downtown Los Angeles within a one-mile radius of the 1st/Central Station of the Regional Connector light rail line.	9/30/2023
LOS ANGELES COUNTY MTA	LA0G1247	The Project consists of bicycle and pedestrian transportation linkage improvements to the Rail to Rail Active Transportation Corridor (ATC) Connector Project Segment A along an approximately 5.6-mile long corridor from the future Metro Crenshaw/LAX Fairview Heights Station to the existing Metro Blue Line Slauson Station.	12/31/2023
LOS ANGELES COUNTY MTA	LA0G1375	This is a large-scale deployment of the Freight Advanced Traveler Information System (FRATIS) Program to deploy advanced congestion management technologies which can achieve significant reductions in truck congestion, improve air quality, and reduce the use of fossil fuels in the Los Angeles region.	12/30/2023

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY MTA	LA0G447	Metro Purple Line Westside Subway Extension Section 1 - Wilshire/Western to La Cienega FTA ARPA - CIG (Section 5309 NS) $66.4M in FY22.	12/31/2023
LOS ANGELES COUNTY MTA	LA0G635	Design and construction of pedestrian and transit enhancements along the public right-of-way of the Metro Gold Line Eastside Extension to surrounding neighborhood. Transit enhancements are within 3 miles of Eastside Goldline Extension station.	6/30/2023
LOS ANGELES COUNTY MTA	LA0G642	Metro Purple Line Westside Subway Extension Section 3 FTA ARPA - CIG (Section 5309 NS) $93.4M in FY22.	6/30/2027
MALIBU	LA0G1748	This project aims to improve safety and traffic flow by providing striping and signage for bicycles, a connecting bike path along the beach, separation of pedestrians and bicycles from the active roadway, connectivity to Pacific Coast Highway, a safe pathway for pedestrians, a sand wall, and driveways for Lifeguard Tower access. The proposed bicycle facility will include 1,200 ft of Class I, 1,800 ft of Class II, and 3,800 ft of Class III bike lanes. The pedestrian path is 1,350 ft.	6/30/2023
METRO GOLD LINE FOOTHILL EXTENSION CONSTRUCTION AU	LA29212XY	METRO RAIL GOLD LINE FOOTHILL EXTENSION - AZUSA TO CLAREMONT (LA County Line) 12 MILE, 5 STATION LRT EXTENSION. SAFETEA-LU # 285 LEAD AGENCY WILL CHANGE TO METRO GOLD LINE.	6/30/2025
MONTEREY PARK	LAF9502	Monterey Pass Road Complete Streets Bike Project is a 1.6 mile corridor providing multimodal transportation alternatives increasing ped, bike & transit use for the first last mile.	12/31/2023
NORWALK	LA0G1342	Imperial Highway ITS Project, from San Gabriel River to Shoemaker Road: Traffic Signal Synchronization.	12/31/2023
NORWALK	LATP17S028	Design and construct 12,000 LF of Class 2 bicycle lanes and improve 2,000 LF of sidewalk on Alondra Blvd. This is part of a long-range project identified in the Gateway Cities 2014 Strategic Transportation Plan to create over 14 miles of bike lanes along this corridor.	6/1/2026
PALMDALE	LATP17S025	The improvements would consist of implementing a "Complete Streets" element that includes crosswalk enhancements, bulb-out crossings, new Class II bike lanes (0.74 mile), the upgrade of a Class II bike lane to a Class IV facility (0.3 mile), mini-roundabouts, sidewalk gap closures, ADA-compliant curb ramps, and upgraded traffic control devices along 10th Street East from Avenue Q-9 to Q-12.	12/31/2030
PASADENA	LAF3522	Cordova Street Complete Streets Project. Convert the vehicular-oriented street to a complete street by removing 2 vehicular traffic lanes to accommodate bike and pedestrian facilities. City of Pasadena - Hill Street to Arroyo Parkway.	7/30/2023
PASADENA	LAMIPMR120	The Walnut Street ITS Project consist of the implementation of ITS assets along the corridor and integration of these assets into the DOT transportation network. Integration will feature point to point connectivity via fiber optics, upgrade in traffic signal hardware, inclusion of video surveillance systems, high resolution capable controllers, traffic safety analytics and collision prediction and short wave radio for vehicle to infrastructure or V2I applications.	12/31/2025

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
PASADENA	LATP17M021	The City of Pasadena will install a 1.5-mile, two-way, protected cycle track (Class I) on Union Street from Hill Avenue to Arroyo Parkway, including necessary signal upgrades with Road diet from 3 to 2 lanes. Also installing bike boulevard (0.3 miles, Class III) along Holliston Avenue between Union St and Cordova St (no Road Diet.)	12/31/2024
PICO RIVERA	LAF7502	Regional Bikeway Project. The project will install a bicycle/pedestrian bridge, Class II bicycle lanes, a Class I shared- use path, traffic calming medians, sidewalks, curb ramps, signal modifications, and wayfinding signage, connecting to two regional Class I routes.	12/31/2023
POMONA	LAF9526	Pomona ATP Phase 2 Bicycle Network for Community Assets: Nearly 9 miles of bikeways along 5 roads, improving access to community destinations and assets, enhancing access to the local and regional multi-modal transportation network.	12/1/2026
POMONA	LATP19S009	Priority projects of the Pomona Active Transportation Plan, including 10.2 miles of bike lanes, 1.8 miles of traffic calming measures, and 14 intersections of bike/ped improvements.	9/24/2024
REDONDO BEACH	LA0G1423	Purchase and install a Real Time Passenger Information System on Beach Cities Transit fixed route buses.	12/31/2023
REDONDO BEACH	LAF3502	Redondo Beach Bicycle Transportation Plan Implementation. Implement Class II and III bike facilities identified in the City of Redondo Beach's adopted Bicycle Transportation Plan. Approximately 2.1 centerline miles of bike lanes and 15.8 centerline miles of bike routes throughout the City of Redondo Beach.	12/31/2022
ROSEMEAD	LAMIPMR111	Install adaptive traffic signal control (ATSC) system, including necessary signal system upgrades for compliance with current standards at 39 signalized locations along Garvey Ave (9 intersections - W to E city limits), Valley Blvd (7 intersections - W to E city limits), San Gabriel Blvd (6 intersections N to S city limits), Walnut Grove Ave (16 intersections - N to S city limits), and Rosemead Blvd (5 intersections - N to S city limits).	6/30/2027
SAN GABRIEL	LAMIPMR102	The proposed project will replace and upgrade traffic signal equipment at 30 signalized intersections along major arterial in the City of San Gabriel. The proposed upgrades include, but are not limited to: new loop detection, video detection, battery back-up, new controllers, and communications. The City shall furnish a list intersection locations and equipment to the Metro Project Manager prior to installation and implementation. All 30 signals are proposed to be synchronized.	5/31/2024
SANTA CLARITA - TRANSIT	LA0G774	Vista Canyon Ranch Transit Center - relocate the existing, temporary Via Princessa Metrolink Station to the Vista Canyon project site; includes Metrolink Station and Bus Transfer Station, a pedestrian overpass or undercrossing of the tracks and an adjacent parking structure with up to 750 parking spaces.	6/30/2024
SANTA CLARITA	LAF7105	DOCKWEILER DR EXTENSION (1 of 2): The project consists of extension of two lanes to connect with a future extension planned for Dockweiler Drive. It includes new sidewalks, Class II bike lane, pedestrian signal heads, high visibility crosswalks, lighting, landscaping, bicycle actuation signals and wayfinding signs.	12/31/2024

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SANTA CLARITA	LAF9118	LYONS AV/DOCKWEILER DR EXTENSION (2 of 2): Construct Dockweiler Drive gap closure between 12th St. and existing terminus of Dockweiler Dr, just west of Valle Del Oro. Constructs 8-ft sidewalks and Class II bike lanes on both sides.	12/31/2024
SANTA CLARITA	LAF9513	Railroad Avenue Class I Bike Path: Project will add 1.45 miles of Class I bike path on Railroad Avenue and enhance connectivity to the Jan Heidt Newhall Metrolink Station to the City's bicycle trail network	6/30/2023
SANTA MONICA	LA9918887	Project to make connectivity and safety improvements on Olympic Bl between Stewart & 26th St, including sidewalk & pedestrian crossings, to provide safer first/last mile access and enhance mobility. Project consists of approx. 1,300 LF (0.25 miles) of pedestrian improvement, enhance signal and intersection geometry at 26th St & Olympic Bl to remove a right turn slip lane and island, shorten pedestrian crossing distances & improve lighting. Use TC $221K in FY24 to match STPL. Toll Credits Used.	12/31/2023
SANTA MONICA	LATP21F109	Construction of Class IV separated bikeway, bus islands, and intersection reconfigurations along Stewart Street. Add new sidewalks and pedestrian scale lighting along Pennsylvania Ave. this project will include 1300 feet of new sidewalk and 3300 feet of new bikeways.	7/31/2027
SIGNAL HILL	LATP17S010	The project will install approximately 2.0 lane miles of bike lanes (Class II) on Spring Street, repave roadway to minimize drainage to bike lanes/level surface, revised striping, signing, modified pedestrian walkways/ramps, signal pedestrian countdown heads, safety lighting, and install bio-retention stormwater quality devices.	9/15/2026
SOUTH EL MONTE	LAF5516	Install Class II bike lanes on Santa Anita Ave from Klingerman St to end of City Limits south of Merced Ave (1.5 mi) and on Merced Ave from Fern Ave to Santa Anita Ave (1.3 mi). Install Class III bike routes with shared-lane markings on Lerma Ave from Merced Ave to SW City Limits (0.3 mi) and on Thienes Ave from Tyler Ave to SE City Limits (1 mi). Install bike parking at the Civic Center and wayfinding/signage. Utilizing TC $13K in FY24 to match STPL CON. Toll Credits Used $13,000 in FFY23/24.	12/31/2023
SOUTH GATE	LA9918774	Construct raised median included in the scope of work is Timing and Coordination and Intelligent Transportation System for existing three (3) traffic signals.	12/31/2023
SOUTH GATE	LATP17S006	Install a Class I bike path (750 ft), Class II bike lanes (2.65 miles), and Class III bike routes (1.61 miles) along with pedestrian improvements including sidewalk, curb extensions, ADA curb ramps, high visibility crosswalks, rectangular rapid flashing beacon, bus shelters, and bike racks.	5/24/2026
SOUTH PASADENA	LA9918928	Deploy advanced adaptive traffic management system along the north south Fair Oaks Avenue and adjacent Fremont corridor from the north City limit to Huntington Drive (12 Signals: 11 South Pasadena and 1 Pasadena). The all traffic signal systems need full scale upgrades to accommodate intelligent transportation systems technologies. The project includes ADA upgrades and changeable message signs to provide real time information for drivers to deploy Integrated Corridor Management strategies.	12/31/2026

TABLE IV-B-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SOUTH PASADENA	LAF5308	South Pasadena's ATMS, Central TCS and FOIC for Fair Oaks Av. This project is located in South Pasadena on Fair Oaks Av between Columbia St and Huntington Dr. It will establish a fiber-optic backbone communication system connection between 12 signals on Fair Oaks Av and City Hall and install the ATMS/central management/control system at its City Hall Building. Funds are for design and construction costs.	12/31/2023
SOUTHERN CALIF. REGIONAL RAIL AUTHORITY	LA0G1596	San Fernando Road Bike Path Phase III - Crossings Safety Improvement. The project is located along San Fernando Road between Branford Street in the City of Los Angeles to CP Hollywood in the City of Burbank and includes 4.2 mile of bike path and 5 at-grade crossings.	12/31/2023
TORRANCE	LA0G1589	Anza Ave from Del Amo Blvd to Sepulveda Blvd; asphalt pavement rehabilitation, repair damaged sidewalks and curb and gutter, traffic signal improvements to increase capacity and throughput (video detection, pedestrian actuation), installation of emergency vehicle preemption.	6/30/2024
VARIOUS AGENCIES	20191301	I-10 Corridor Contract 2: The project will provide one express lane in each direction from just east of I-15 to Pepper Avenue in Colton, connecting to the I-10 Corridor Contract 1 express lanes currently under construction (Toll Credits to match STP).	12/30/2027
WHITTIER	LAF5314	Gateway Cities Forum Traffic Signal Corridors Project - improve traffic signal operations by upgrading each traffic signal to federal and state standards, providing additional vehicle detection to enable operation as a fully traffic-actuated signal, installing the appropriate components to enable each signal to be capable of time-based coordination and retiming signals to improve the overall progression of traffic (approximately 17 signals included).	6/30/2023
WHITTIER	LAF7519	Project is located in the City of Whittier. It will implement a two-mile Class I bike/pedestrian path on a City-controlled easement along the Union Pacific Railroad corridor from Mills Av to Leffingwell Rd, and it will also provide a trailhead east of Mills Av. The project promotes a regional bikeway corridor by extending the 4.5-mile Whittier Greenway Trail east at the City and LA County limits. Utilizing TC of $247K in FY24 to match CMAQ in CON. Toll Credits Used.	12/31/2023
WHITTIER	LATP16S011	Whittier Greenway Trail East Extension Gap Closure. Acquisition of final 0.5 mile and construction/completion of final 2.8 miles of the 7.3-mile Whittier Greenway Trail, a Class I bicycle and pedestrian trail along southern boundary of Whittier, connecting LA & Orange County.	12/31/2023

TABLE IV-B-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ANAHEIM	ORA152211	Nohl Ranch Open Space Trail - project will consist of a 10-foot wide Class I bikeway and a 3 to 10-foot wide pedestrian trail (pending clearance), in compliance with Caltrans standards. The project alignment would be approximately 5,100 LF and connect Anaheim Hills Road to the signalized crossing on the east side of Avenido Bernardo North. Ancillary features of the project include lighting, lane markings, signs, bicycle parking and pedestrian amenities.	6/30/2027
BREA	ORA190906	OC Loop Brea Gap Closure - Class I, 1.30-mile bikeway along the existing railroad ROW between North Palm Street and the Brea Canyon Channel in the City of Brea.	6/30/2028
GARDEN GROVE	ORA170202	City of Garden Grove, Bicycle Corridor Improvements - New bike lanes through road rebalancing on West Street and Gilbert Street, striping buffers to existing bike lanes on Brookhurst Street, Chapman Avenue, and Lampson Avenue, striping bike lane network gaps on Brookhurst Street, improving and creating bicycle routes on Lampson Avenue, Gilbert Avenue, Imperial Avenue, Shapel Street and Deadora Drive.	10/1/2025
LA HABRA	ORA113011	La Habra Union Pacific Railroad Bikeway. ENG for Union Pacific Railroad ROW between La Habra West City Limits and La Habra East City Limits. ROW for La Habra West City Limits to Beach Boulevard. Toll Credit Match for ATP-MPO - Split project with ORA190920 for ROW.	7/1/2025
ORANGE COUNTY	ORA170205	HAZARD AVENUE BIKEWAY PROJECT between Goldenwest Street and Euclid Avenue. Construct approximately 4 miles of a Class IV (paved, on-road protected) Bikeway in the cities of Westminster and Garden Grove.	12/1/2023
ORANGE COUNTY	ORA230801	OC Loop Segment P and Q - Class I trail along the Coyote Creek Flood Channel (1.6 miles) that closes a gap along the 66-mile multi-modal regional route known as the OC Loop. Split project from ORA151508.	12/19/2030
ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)	ORA112702	Rideshare Vanpool Program - Capital Lease Cost FY12/13 - FY20/21. This project includes subsidy, marketing, database, ride guide and associated costs for the Rideshare/Vanpool program. Transit Development Credits: FY18/19 FTA 5307 Transfer @ $516, FY20/21 CMAQ @ $516 and FY21/22 CMAQ @ $516.	9/30/2024
ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)	ORA210301	The project will install real-time display & Bravo! signage at up to 23 bus stops along the Bravo! Main Street Rapid Bus and OC Bus Route 53/53X corridor. Route 53/53X operates from Anaheim through Orange and Santa Ana to Irvine via Main Street and Bravo! Main Street Rapid Bus (Route 533) operates on Main Street from Anaheim Regional Transportation Intermodal Center to MacArthur Boulevard in Santa Ana.	12/31/2025
ORANGE COUNTY TRANSPORTATION AUTHORITY (OCTA)	ORA211701	Countywide Signal Synchronization Baseline This project aims to build and reset the synchronization baseline network for Orange County's Signal Synchronization Network or SSN for the weekday and weekend peak periods. This project will include data collection, timing optimization, implementation, fine-tuning and continuity testing of 2,500 signals along the SSN. Toll credits: CMAQ: $1,376 in FY22/23; STBG: $344 in FY22/23.	6/30/2029
SANTA ANA	ORA151502	Santa Ana and Fifth Protected Bike Lane - Install median protected bike lanes on Santiago, Sixth, Brown, Garfield, French, Fifth and Santa Ana with all applicable signage, striping, and signal improvements. ATP State only funding.	12/1/2026

TABLE IV-B-A-2. ORANGE COUNTY			
LEAD AGENCY	PROJECT ID	PROJECT DESCRIPTION	COMPLETION DATE
SANTA ANA	ORA151503	The Edinger Ave Protected Bike Lanes Project - Install bike lanes down the 1.7 mile corridor passing through residential homes, schools, parks, and small business shopping centers. The Project includes a Safe Routes to School program at 3 schools. ATP State-Only funded.	12/1/2026
SANTA ANA	ORA170802	First Street Pedestrian Improvements - Widen existing sidewalks by three feet, narrow the vehicle lanes, construct ADA improvements on sidewalks and wheel chair ramps, provide high visibility marked crosswalks, and add a signal controlled pedestrian crossing along First Street, 1.1 mile corridor.	12/14/2026
SANTA ANA	ORA190901	Fremont Elementary and Spurgeon Intermediate SRTS - Pedestrian/bicyclist traffic safety improvements for Fremont Elementary and Spurgeon Intermediate safe routes to school. Work includes bulbouts, curb ramps, 2,383 linear feet (lf) of new sidewalk, 10,824 lf of class 3 bikeways and a road diet with 5,280 lf of class 2 bikeways. State only funds.	7/15/2026
SANTA ANA	ORA190904	McFadden Ave. Protected Bike Lane and Bicycle Blvd. Project - McFadden Ave. 15,050 linear feet of class IV protected bike lanes and road diets and 6,365 linear feet of class III Bicycle Blvd from Harbor Blvd to Grand Ave in the City of Santa Ana. ATP toll credits.	7/15/2026
SANTA ANA	ORA190905	Standard Avenue Class IV Protected Bike Lane and Class II Buffered Bike Lane from 3rd Street to Warner Avenue and Protected Intersection Project at McFadden in the City of Santa Ana. Project includes 9,900 linear feet (lf) of road diets, 4,000 lf class II, 1,700 lf class III, and 5,900 lf class IV bikeways. ATP toll credits.	7/15/2026
SANTA ANA	ORA190915	Bristol Street Protected Bike Lanes - Phase II Warner to St. Andrew Place - Class IV, 1.0-mile bicycle lane installation on Bristol Street from Warner Avenue to St. Andrew Place. This segment will install a six-foot wide bicycle lane and a four-foot wide separation barrier as a buffer within the curb to curb street width after.	2/26/2026
SANTA ANA	ORA210901	Raitt Street Protected and Buffered Bike Lane Project - Raitt St. Class 4 protected bike lane from St. Gertrude to Santa Ana Blvd, Class 2 bike lane from Warner to Occidental, and Class 3 bicycle blvd from Santa Ana Blvd to Washington.	12/30/2030
VARIOUS AGENCIES	ORA100511	SR-55 WIDENING BETWEEN I-405 AND I-5 - ADD 1 MF AND 1 HOV LANE EACH DIRECTION AND FIX CHOKEPOINTS FROM I-405 TO I-5; ADD 1 AUX LANE EA DIR BTWN SELECT ON/OFF RAMP AND NON-CAPACITY OPERATIONAL IMPROVEMENTS THROUGH PROJECT LIMITS. Toll Credit for RSTP and CMAQ (Including street traffic signal improvement at I-5/Newport Avenue onramp for mitigation. non-capacity).	4/30/2029
VARIOUS AGENCIES	ORA111210	I-5 FROM SR 55 TO SR 57 - ADD 1 HOV LANE EACH DIRECTION (PPNO 2883A). Signage from PM 31.1 to 37.7 (Utilize toll credit match).	12/31/2021
VARIOUS AGENCIES	ORA111801	I-5 (Alicia Parkway to El Toro Road) Segment 3 - The project will add one general purpose lane on the I-5 in each direction between Alicia Parkway and El Toro Road (approximately 1.7 miles), Extend the 2nd HOV lane in both directions and add auxiliary lanes where needed.	9/30/2025

TABLE IV-B-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
CALIMESA	RIV190623	IN WESTERN RIVERSIDE COUNTY FOR THE CITY OF CALIMESA (JOINT PROJECT WITH CITY OF YUCAIPA) - ON COUNTY LINE RD B/W PARK AV AND BRYANT ST, CONSTRUCT 4 SINGLE-LANE AND 1 MULTI-LANE ROUNDABOUTS; AND IMPROVEMENTS TO STREET, PEDESTRIAN FACILITIES, AND BICYCLE FACILITIES.	12/31/2030
CITY OF EASTVALE	RIV210627	In Western Riverside County in the City of Eastvale - Southeast Eastvale Safe Routes to School Equitable Access Project - Construct: 1 lane mile of Class II bikeway along Orange Street from Summer Ave to Scholar Way; a pedestrian signal with bulb-outs & pedestrian refuge island; 3 additional crossing improvements for existing Class 1 path; 4 bulb-outs.	10/28/2028
CITY OF JURUPA VALLEY	RIV200703	IN WESTERN RIVERSIDE CO. FOR THE CITY OF JURUPA VALLEY - SRTS SIDEWALK GAP CLOSURE ON VARIOUS STREETS NEAR SUNNYSLOPE ELEMENTARY SCHOOL: CONSTRUCT 9,715 LF OF SIDEWALKS, 15 CROSSWALKS (11 NEW & 4 UPGRADES), 19 ADA RAMPS, SOLAR FLASHING BEACONS AT 2 AWSC INTERECTIONS AND RRFB CONTROLLED CROSSWALK (STATE-ONLY FUNDS: SB1 & SHA).	12/30/2027
HEMET	RIV181010	IN CITY OF HEMET - HEMET VALLEY BIKEWAY CONX: INSTALL CLASS II (1,200 LF), III (10,500 LF) BIKE LNS, NEW S/W (4,000 LF) W/ ADA RAMPS, XING IMP., ON PALM BW ESPLANDE & JOHNSTN, WHITTIER BW PALM & GILBERT, JOHNSTN BW PALM & GILBERT, GILBERT BW WHITTIER & CHAMBERS, CHAMBERS BW GILBERT & STATE; BIKE STAGING W/ DETECTION, LOCKERS, REPAIR AREA; INCL OUTREACH. (ATP-3 AUG STATE) TC UTILIZ FOR FY19, FY20.	9/1/2023
PERRIS	RIV210619	In Western Riv. Co. in the City of Perris: Construct 9,240 linear ft of class IV bike lanes with hardscape buffer and reflective delineators, 3 high-visibility crosswalks, 700 linear ft of sidewalks, bike repair stations, and signage on Redlands Ave between Placentia Ave and Tahoe St, and on Citrus Ave between Redlands Ave and Perris Blvd. Includes public outreach campaign.	12/31/2028
RIVERSIDE COUNTY	RIV200707	IN WESTERN RIVERSIDE CO. FOR THE UNINCORPORATED AREA OF WARM SPRINGS AND IN THE CITY OF LAKE ELSINORE - EL TORO RD/DEXTER AVE SRTS SIDEWALK PROJECT: CONSTRUCT APPROX. 5,748 LF OF SIDEWALK, CURB AND GUTTER ON EL TORO/DEXTER FROM CARMELA CT TO 630' N/O CENTRAL AVE INCLUDING 7 NEW CURB RAMPS, A NEW CROSSWALK AND 2 FLASHING BEACONS. SRTS PROGRAM INCLUDES: WALK/BIKE AUDIT, PED SAFETY CLASS, MOCK CITY EVENTS, AND SRTS LAW ENFORCEMENT.	12/30/2028
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV160101	IN WESTERN RIVERSIDE COUNTY ON SR-91/I-15: On I-15 -ADD TOLL EXPRESS LANE MEDIAN DIRECT CONNECT FROM SB15 TO WB91 & EB91 TO NB15, 1 TOLL EXPRESS LANE EACH DIRECTION FROM HIDDEN VALLEY TO SR91 DIRECT CONNECTOR. CONSTRUCT OPERATIONAL IMPROVEMENT BY EXTENDING THE EB91 EXPRESS LANE (2ND LN SPLIT TO RIV160101A) AND AUXILARY LANE ALONG SR91. CONSTRUCT ADDITIONAL SIGNAGE ALONG SR91 AT PM R18.0 IN OR COUNTY.	6/30/2024
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV111207	IN WESTERN RIVERSIDE COUNTY - CONTINUE THE IMPLEMENTATION OF PARK & RIDE FACILITIES THROUGH PROPERTY LEASES (VARIOUS LOCATIONS THROUGHOUT THE WESTERN COUNTY).	12/30/2028
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV151104	FREEWAY SERVICE PATROL (FSP) CONTINUED IMPLEMENTATION OF FSP ON SR-91 (ORANGE COUNTY LINE TO 60/91/215 INTERCHANGE), SR-60 (MILLKEN TO THEODORE), I-215 (SAN BERNARDINO COUNTY LINE TO MURRIETA HOT SPRINGS), I-15 (SR-60 TO SR-79/TEMECULA PARKWAY).	12/31/2028

TABLE IV-B-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV200105	In Western Riverside County - Continue the implementation of subsidies for eligible vanpools commuting to worksites in Western County. TDC used as follows: FFY 23/24 $49k; FFY24/25 $70k; & FFY25/26 $93k.	12/30/2030
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV200801	In Western Riverside County in the City of Temecula: Installation of new vehicle detection and adaptive highway metering systems on I-15 NB from the San Diego county line to the I-15/I-215 split. Includes relocation of existing ramp meters at Rancho California Rd. (RCR) and Temecula Parkway, ramp modifications at RCR and Winchester Road, variable speed limit signs, and other ITS elements. TC Utilization for CMAQ and TC for Earmarks.	12/31/2025
RIVERSIDE TRANSIT AGENCY	RIV180131	IN WESTERN RIV CO IN THE CITY OF HEMET FOR RTA - CONSTRUCTION OF THE HEMET MOBILITY HUB ON 2 ACRE PARCEL LOCATED EAST OF RAIL ROW, SOUTH OF EAST DATE STREET, W/O NORTH JUANITA ST, AND NORTH OF EAST DEVONSHIRE AVE TO INCLUDE: 10 BUS BAYS, 10 SHELTERS/CANOPIES, 20 PARKING SPACES, 1 TRAFFIC SIGNAL AT DEVONSHIRE & CARMALITA, 1 CONTROLLED INTERSECTION AT DEVONSHIRE AND JUANITA; STORAGE AND RESTROOM FACILITY. (FTA 5339: FY15 $1,626 (URBAN) ; FY16 $317 AND FY17 $326 (SMALL URBAN).	12/31/2030
WILDOMAR	RIV210630	In Western Riverside County in the City of Wildomar: Bundy Canyon ATP Corridor (CIP 026-3): Between Monte Vista Drive and Harvest Way, construct a 2.2 mile ADA compliant 15-foot wide Class I Shared Bike/Pedestrian Path along Bundy Canyon Road with lighting, wood/rope barrier, and CA MUTCD signage. Includes community programs to enhance safety and comfort for residents and students.	12/31/2029

TABLE IV-B-A-4. SAN BERNARDINO COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
FONTANA	20131506	IN FONTANA: SAN SEVAINE TRAIL (PHASE 1, SEG 2) North/South 1.25 mile long, 12 ft wide paved multi-use trail from Banyan St. to the Pacific Electric Trail in Fontana.	12/31/2023
HIGHLAND	SBD230803	In Highland: Construction of 1 mile of new Class II and III bicycle lanes on Orange St from Greenspot Rd to Eucalyptus Ave (Class II), Orange St from Eucalyptus Ave to Tonner Dr. (Class III), Tonner Dr. from Orange St to Streater Dr. (Class III), Steater Dr. from Baseline to Glenheather Dr. (Class II and III), Glenheather Dr. from Streater Dr. to Church St/Love St. (Class II and III) and Love St. from Church St. to Elder Gulch Paseo (Class III).	6/30/2025
REDLANDS	SBD230802	In Redlands: Installation of 0.1 miles of a Class IV bikeway on Texas Street from Citrus Valley High School (CVHS) to Domestic Avenue. Installation of 0.5 miles of Class I bicycle/pedestrian path on Domestic Avenue from Texas Street to Orange Street connecting CVHS to Orange Street. Installation of 0.25 miles of Class I bicycle/pedestrian path on Orange Street from Pioneer Street to Domestic Avenue.	4/1/2024
OMNITRANS	20150307	COUNTY-WIDE VANPOOL PROJECT (Ongoing)(TDC: FY16/17 CMAQ CON $460k).	6/30/2023
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	20190010	Reconstruct Mt. Vernon Ave Bridge over I-10 to accommodate 2 new dedicated left turn and bike lanes and sidewalk, realign Mt. Vernon & E Valley Blvd Intersection, and modify portion of the WB on-ramp and EB off-ramp. Widen SB Mt Vernon Ave south of the bridge to 2 through lanes. Widen NB Mt Vernon Ave, south of the EB on-ramp, to accommodate 1 new dedicated left turn lane.	12/31/2025
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	20190702	SBCTA Metrolink Station Accessibility Improvement Project - Phase II: Bicycle and pedestrian accessibility improvements near five Metrolink transit stations (Montclair, Upland, Rancho Cucamonga, Fontana, and San Bernardino). Toll Credit to match ATP.	5/21/2024
VARIOUS AGENCIES	20159901	I-15 Express Lanes (Contract 1): Construct 1 Exp. Lane in each direction between Cantu-Galleano Ranch Rd. and SR-60 and 2 Exp. Lanes in each direction between SR-60 and north of Foothill Blvd. Additional improvements to AUX LN widening, undercrossing, and reconstruction of ramps and lane transitions where needed.	10/1/2026
VARIOUS AGENCIES	20191301	I-10 Corridor Contract 2: The project will provide one express lane in each direction from just east of I-15 to Pepper Avenue in Colton, connecting to the I-10 Corridor Contract 1 express lanes currently under construction (Toll Credits to match STP).	12/30/2027