South Coast AQMD

REVISED DRAFT

2022 AIR QUALITY MANAGEMENT PLAN

Appendix IV-C

SCAG's Regional Transportation Strategy and Control Measures

REVISED DRAFT 2022 AQMP
APPENDIX IV-C

Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures

~~May~~September 2022

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-C (Appendix or Appendix IV-C throughout) describes the Southern California Association of Government's (SCAG) Regional Transportation Plan/Sustainable Communities Strategy and Transportation Control Measures (TCMs) to address the 2015 8-hour ozone standards in the South Coast Air Basin as part of South Coast Air Quality Management District's (South Coast AQMD) Draft 2022 Air Quality Management Plan (AQMP). This Appendix IV-C is based on SCAG's Final 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020 RTP/SCS, also known as Connect SoCal) and 2021 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.

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 projects are supportive of the goals and objectives of applicable AQMPs 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.

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)
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- 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 2021 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-C is a list of transportation control measure projects that are from SCAG's 2021 FTIP and specifically identified and committed to in the Draft 2022 AQMP/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 tons per day (tpd) in 2025, 4.1 tpd in 2035, and 6.8 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 to 73 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 Reasonably Available Control Measure Analysis

As required by the CAA, a Reasonably Available Control Measure (RACM) analysis must be included as part of the overall control strategy in the ozone SIP to ensure that all potential control measures are evaluated for implementation and that justification is provided for those measures that are not implemented. This Appendix IV-C contains the TCM RACM component for the South Coast ozone control strategy. In accordance with the U.S. Environmental Protection Agency (EPA) procedures, this analysis considers TCMs in Connect SoCal, measures identified by the CAA, and relevant measures adopted in other ozone nonattainment areas of the country.

Based on this comprehensive review, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM.

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 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 conformity RTP/SCS for the SCAG region which includes the entire South Coast Air Basin.

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, 2021 FTIP is the currently conformity 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 Draft 2022 South Coast AQMD 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 farm land conservation, transportation safety and security, public health, transportation system preservation and resilience, transportation access and mobility, funding the transportation system, and planning for 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% 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% of residents in a flood hazard zones are minority.

Another regional challenge that is of key relevance to the 2022 AQMP 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 recently developed jointly by the South Coast AQMD and the CARB and subsequently submitted to the U.S. Environmental Protection Agency (EPA). The Contingency Measure Plan[3] highlights the critical need 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.

[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,

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.

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

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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.

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.

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

[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.

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% to nearly 25% 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 are 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.

- **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

[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.

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.

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

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 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 2021 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 2022 South Coast AQMD AQMP. 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 US 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 1-1 and 1-2 compare VOC (ROG) and NOx 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 1-1 are based on the assumption that the EMFAC2017 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 1-2 factor in the future improvements in the fleet mix and emission factors as reflected in the EMFAC2017. Note that the Connect SoCal emission reductions in Tables 1-1 and 1-2 are not double-counted toward the emission reductions presented in the main report of the 2022 AQMP because Connect SoCal is considered in the AQMP air quality modeling baseline.

[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.

As shown in Table VI-C 1-1, 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 tons per day (tpd) in 2025, 4.1 tpd in 2035, and 6.8 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 by more than half, as shown in Table VI-C 1-2, because the vehicles as a whole are becoming much cleaner and reduction of every vehicle mile traveled from Connect SoCal yields less NOx reduction.

TABLE VI-C 1-1. Regional Transportation Emissions (annual average) (tons per day)

Assuming Constant 2016 Vehicle Fleet Mix and Emission Factors

	VOC (ROG)			NOx		
	2025	**2035**	**2045**	**2025**	**2035**	**2045**
Connect SoCal	97.2	99.9	103.4	227.2	248.9	280.5
Connect SoCal Baseline	99.0	104.2	110.0	228.8	253.0	287.3
Connect SoCal Reduction	1.8	4.4	6.5	1.5	4.1	6.8

Note: Calculated with EMFAC2017 Emission Model

TABLE VI-C 1-2. Regional Transportation Emissions (annual average) (tons per day)

Based on Vehicle Fleet Mixes and Emission Factors as Reflected in EMFAC2017

	VOC (ROG)			NOx		
	2025	2035	2045	2025	2035	2045
Connect SoCal	51.1	36.5	31.8	80.7	66.6	71.5
Connect SoCal Baseline	52.0	38.1	33.8	81.4	67.7	73.4
Connect SoCal Reduction	0.9	1.6	2.0	0.6	1.1	2.0

Note: Calculated with EMFAC2017 Emission Model

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 VI-C 2-1 and VI-C 2-2 are not double-counted toward the emission reductions presented in the main report of the Draft 2022 AQMP because the TCMs are part of Connect SoCal which is considered in the AQMP air quality modeling baseline.

Under the same two different assumptions on future vehicle technology, Tables VI-C 2-1 and VI-C 2-2 show the results of the TCM modeling analysis for years 2021 and 2035 (between the 2008 8-hour ozone attainment year of 2031 and the 2015 8-hour ozone attainment year of 2037). Specifically, the emission reduction benefits shown in Table VI-C 2-1 are based on the assumption that the EMFAC2017 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 VI-C 2-2 factor in the future improvement in the fleet mix and emission factors as reflected in the EMFAC2017.

As shown in Tables VI-C 2-1 and VI-C 2-2 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 2-1. TCM Emissions (annual average) (tons per day)

Assuming Constant 2016 Vehicle Fleet Mix and Emission Factors

	VOC (ROG)		NOx	
	2021	2035	2021	2035
Connect SoCal	96.6	99.9	215.8	268.0
Connect SoCal without TCM	97.1	101.1	216.2	269.3
TCM Reduction	0.5	1.2	0.4	1.3

Note: Calculated with EMFAC2017 Emission Model

TABLE 2-2. TCM Emissions (annual average) (tons per day)

Based on Vehicle Fleet Mixes and Emission Factors as Reflected in EMFAC2017

	VOC (ROG)		NOx	
	2021	2035	2021	2035
Connect SoCal	63.9	36.5	119.7	66.6
Connect SoCal without TCM	64.2	36.9	120.0	66.9
TCM Reduction	0.3	0.4	0.3	0.3

Note: Calculated with EMFAC2017 Emission Model

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. Reasonably Available Control Measure Analysis

Introduction

Clean Air Act Section 172(c)(1) requires SIPs to provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable. Guidance on interpreting RACM requirements in the context of the 1990 Amendments was set forth in the General Preamble (57 FR 13498, 13560) in 1992. In the General Preamble, U.S. EPA interpreted section 172(c)(1) as imposing a duty on States to consider all available control measures and to adopt and implement measures that are reasonably available for implementation in a specific nonattainment area. It also retained an earlier interpretation of RACM that it would not be reasonable to require the implementation of measures that do not advance the date for attainment.

With regard to TCMs, U.S. EPA's guidance indicates that it is inappropriate to presume that all Section 108(f)(1)(A) measures of the CAA are available in all nonattainment areas. Instead, States should consider Section 108(f)(1)(A) measures as potential options that are not exhaustive, but indicative of the types of measures that should be considered. In addition, any measure identified as reasonably available during the public comment period should also be considered for implementation. In addition, States could reject measures as not reasonably available for reasons related to local conditions. States are required to justify why available measures were not considered RACM and not adopted in the SIP. As codified for the 2008 8-hour ozone NAAQS at 40 CFR 51.1312(c), U.S. EPA is retaining the existing general RACM requirements for purposes of the 2015 8-hour ozone NAAQS.[8]

To meet the RACM requirements articulated in the U.S. EPA guidance described above, this RACM analysis was performed following a four-step process. The first step is a description of the process by which SCAG and related transportation agencies in the South Coast Air Basin identify, review, and make enforceable commitments to implement TCMs. The second step is the assembly and review of a list of control measures recently implemented in other Serious, Severe, and Extreme ozone nonattainment areas. This effort involved a review of measures implemented in California nonattainment areas as well as those located in other states, and the organization of those measures in the 16 categories specified in CAA §108(f)(1)(A). The third step is the determination of RACM by contrasting the list of candidate measures with measures implemented to date in the South Coast Air Basin, as well as any new TCMs in the current AQMP. Finally, the fourth step is the provision of reasoned justification for any of the available measures that have yet been implemented. These justifications must address criteria described in the above-cited guidance.

Step 1. SCAG RACM/TCM Rollover Development Process

While the SCAG Region has an extensive, systematic TCM development program continually updated through the FTIP process, Serious and worse nonattainment areas are obligated during SIP preparation to evaluate TCMs and determine whether they qualify as RACM.

[8] https://www.govinfo.gov/content/pkg/FR-2018-12-06/pdf/2018-25424.pdf.

The RACM process relies predominantly on a continuous process of updating and adding TCMs in the South Coast Air Basin. The current TCM "Rollover Process" was established for the South Coast Air Basin to replace a process that developed TCMs each time a SIP was produced with a continuous, ongoing TCM process. This process continues to govern the selection and implementation of TCMs today. TCMs are continuously identified and reviewed throughout the transportation planning process. SCAG's ongoing public outreach effort, including an involved interagency input process via SCAG's Transportation Conformity Working Group (TCWG), helps ensure that the process to identify and review TCMs is robust, inclusive, and comprehensive. Development of TCMs arises from multiple processes and multiple sources including CTCs, subregional agencies, task forces, committees, and the public. As part of the RTP and FTIP development process, the transportation project funding and scheduling procedures ensure that TCMs are developed, sponsored, and clearly identified throughout the process and implemented on schedule.

Step 2. Assembly and Review of Candidate TCM RACM

U.S. EPA and related court decisions have maintained that TCMs considered RACM must be measures that (a) advance the attainment date, typically by at least one year and (b) are technologically and economically feasible. Measures must pass both the advance attainment and technological/economic feasibility tests to be deemed RACM.

U.S. EPA guidance documents identify the types of measures to be considered. CAA §108(f)(1)(A) provides a list of the following sixteen categories of TCMs that are potential options and should be considered indicative types of TCMs:

i. *Programs for improved use of public transit;*
ii. *Restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles;*
iii. *Employer-based transportation management plans, including incentives;*
iv. *Trip-reduction ordinances;*
v. *Traffic flow improvement programs that achieve emission reductions;*
vi. *Fringe and transportation corridor parking facilities, serving multiple occupancy vehicle programs or transit service;*
vii. *Programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration, particularly during periods of peak use;*
viii. *Programs for the provision of all forms of high-occupancy, shared-ride services, such as the pooled use of vans;*
ix. *Programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place;*
x. *Programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas;*
xi. *Programs to control extended idling of vehicles;*
xii. *Programs to reduce motor vehicle emissions, consistent with Title II of the Clean Air Act, which are caused by extreme cold start conditions;*
xiii. *Employer-sponsored programs to permit flexible work schedules;*
xiv. *Programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of*

transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity;

xv. Programs for new construction and major reconstruction of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation, when economically feasible and in the public interest; and

xvi. Programs to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks.

U.S. EPA guidance states that these sixteen categories are an illustrative, but not exhaustive list. The General Preamble also states that U.S. EPA does not presume that "control measures are reasonably available in any or all areas," therefore, TCMs need to be evaluated on an area-by-area basis to determine which are reasonably available. In addition to the measures listed above, the General Preamble cites other sources to include TCMs that were (a) suggested during public comments (e.g. at workshops, public hearings, in written comments, etc.); (b) adopted in other nonattainment areas of the country; and (c) specifically identified by the U.S. EPA (i.e., U.S. EPA TCM database, support documents for rulemaking, etc.).[9] It is important to note that, 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.

To develop a list of candidate RACMs, SCAG performed a comprehensive review of available TCMs in California, as well as in other states. SCAG reexamined the candidate RACM identified during the comprehensive RACM analysis performed for the 2016 AQMP and updated TCMs based on new ozone SIPs developed since the last RACM analysis. The SIPs reviewed by SCAG include all applicable SIPs from Serious, Severe, and Extreme nonattainment areas under the 2008 8-hour ozone standards[10] that were not available for review in the previous 2016 AQMP. Tables VI-C-4 lists these additional ozone nonattainment area SIPs that SCAG reviewed for candidate measures as part of this analysis.

Additionally, TCMs were discussed and reviewed at numerous TCWG meetings as part of the 2019 FTIP, 2021 FTIP, Connect SoCal, and 2022 AQMP. Further, SCAG has an extensive and robust public participation process for the development of the RTP and the FTIP through ongoing public meetings, and technical, advisory, and policy committees. These groups generally meet on a monthly or quarterly basis and provide explicit opportunities for the public to participate and contribute.

[9] Seitz, John S. (December 2, 1999). Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas. Available at: http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf.

[10] U.S. EPA's ozone standard nonattainment area designations are available at https://www.epa.gov/green-book.

TABLE VI-C-4. 8-Hour Ozone Standard Nonattainment Areas Reviewed for RACM

Region	Designation	Applicable SIP
Chicago-Naperville, Illinoi-Indiana-Wisconsin	Serious	Draft Redesignation Request and Maintenance Plan for the Illinois Portion of the Chicago Ozone Nonattainment Area for the 2008 Ozone Standard
Coachella Valley, California	Severe 15	Final 2016 Air Quality Management Plan
Dallas-Fort Worth, Texas	Serious	Dallas-Fort Worth Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
Denver-Boulder-Greeley-Ft, Colorado	Serious	Serious State Implementation Plan for the Denver Metro and North Front Range Ozone Nonattainment Area, December 18, 2020
Eastern Kern, California	Severe 15	2017 Ozone Attainment Plan For 2008 Federal 75 ppb 8-Hour Ozone Standard
Houston-Galveston-Brazoria, Texas	Serious	Houston-Galveston-Brazoria Serious Classification Attainment Demonstration State Implementation Plan Revision for the 2008 Eight-Hour Ozone National Ambient Air Quality Standard
New York-Northern New Jersey- Long Island, Connecticut	Serious	Revision to Connecticut's State Implementation Plan Ozone Attainment Demonstration for Areas Classified Serious Nonattainment for the 2008 Ozone Standards, October 2021 8-Hour Ozone Attainment Demonstration for the Connecticut Portion of the New York-Northern New Jersey-Long Island (NY-NJ-CT) Nonattainment Area Technical Support Document
New York-Northern New Jersey- Long Island, New York	Serious	New York State Implementation Plan for the 2008 Ozone National Ambient Air Quality Standards – New York-N. New Jersey-Long Island, NY-NU-CT Serious Nonattainment Areas, 2021
San Diego, California	Severe 15	2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County
San Joaquin Valley, California	Extreme	2016 Ozone Plan for 2008 8-Hour Ozone Standard

TABLE VI-C-4. 8-Hour Ozone Standard Nonattainment Areas Reviewed for RACM

Region	Designation	Applicable SIP
Sacramento, California	Severe 15	Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan, 2017
Ventura, California	Serious	Final 2016 Ventura County Air Quality Management Plan
Western Mojave	Severe 15	MDAQMD Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)
Western Nevada County, California	Serious	Ozone Attainment Plan, Western Nevada County, State Implementation Plan for the 2008 Primary Federal 8-Hour Ozone Standard of .075 ppm, 2018

In summary, SCAG performed the RACM analysis based on information reviewed from the following sources:

- CAA Section 108(f)(1)(A)
- 2016 South Coast AQMP TCM RACM Analysis
- Other Serious and worse ozone nonattainment areas in California
- Other Serious and worse ozone nonattainment areas outside California
- SCAG RTP and FTIP Updates since adoption of 2016 RTP/SCS
- Interagency Consultation (TCWG)
- Transportation Committee, Energy and Environment Committee, and Active Transportation Working Group meeting materials and input

SCAG reviewed the candidate measures to determine which could be considered RACMs. As discussed above, the RACM TCM requirement consists of two core criteria that must be satisfied: (a) TCMs must advance attainment of the air quality standards; and (b) TCMs must be both technologically and economically feasible. U.S. EPA has not provided specific definitions on these core criteria, but has preferred to allow flexibility in each region's determination.

In practice, agencies have based their determination of the first criteria on whether a measure, or group of measures, would help an area achieve attainment one year earlier than in the absence of the measure, or group of measures. In other words, TCM implementation must significantly reduce emissions to facilitate attainment of the NAAQS one year earlier than without the TCMs. Considering the magnitude of the emissions reductions necessary to demonstrate attainment in the South Coast Air Basin, the implementation of every possible TCM is not expected to meet this criterion. Technological feasibility has been determined in terms of local factors, such as environmental impacts, availability of control measures, and ability to achieve the emission reductions. Project cost-effectiveness has been considered a determining factor for economic feasibility.

Step 3. Determining RACM Measures

For this step of the RACM analysis, SCAG compared the list of measures implemented within the South Coast Air Basin with those implemented in other areas. SCAG then organized measures, including candidate measures and those measures currently implemented in the region, into the sixteen categories specified in CA §108(f)(1)(A). There is no formal requirement on how to organize TCMs. However, SCAG utilized this organization scheme as a way to highlight those measures that fall within the sixteen CAA categories, which are formally recognized as "TCMs" and subject to CAA and federal conformity requirements. In addition, a category titled “Other Measures” includes TCMs that do not fall in any of the sixteen CAA §108(f)(1)(A) categories. SCAG found a small number of candidate measures that were not currently implemented in the region and not included in the 2016 AQMP TCM RACM analysis. New measures added to those reviewed as part of the 2016 RACM analysis are highlighted in bold font in Attachment B.

Step 4. Reasoned Justification

The fourth and last step is to provide a reasoned justification for any of the available measures that have yet been implemented or will not be implemented. In 1999, U.S. EPA issued a memorandum of guidance[11] which states that in order to determine whether a state has adopted all RACMs necessary for attainment and as expeditiously as practicable, the state must explain why the selected implementation schedule is the earliest schedule based on the circumstances of the area. This indicates that states can reject measures as not reasonably available for reasons related to local conditions. In such cases, states are obligated to provide justification as to why potentially reasonable measures have not been adopted. Valid reasons for rejecting a measure include: (a) it would not advance the attainment date, (b) it is economically infeasible, or (c) it is technologically infeasible.

The complete listing of all candidate measures evaluated for RACM determination is included in Attachment B. A “Measure Number” is assigned for each strategy for ease of discussion (not rank in priority). The “Description” column provides a brief description of the relevant measure in discussion. “Has It Been Implemented?” confirms whether the measure is currently implemented in the SCAG region. The final “Reasoned Justification for Not Implementing” column provides a reasoned justification for those measures that were not considered RACM. SCAG appropriately considered a number of factors that included technological and economic feasibility, enforceability, geographic applicability, and ability to provide emission reductions. Of the TCMs that were deemed candidate measures, none were found to meet the criteria for RACM implementation of advancing attainment and technological/economic feasibility.

Conclusion

CAA Section 172(c)(1) requires SIPs to provide for the implementation of all TCM RACM as “expeditiously as practicable.” U.S. EPA and related court decisions have maintained that TCMs considered RACM must be measures that 1) advance the attainment date, typically by at least one year and 2) are technologically

[11] Seitz, John S. (December 2, 1999). *Memo from John Seitz: Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas.* Available at: http://www.epa.gov/ttn/oarpg/t1/memoranda/revracm.pdf.

and economically feasible. Measures must pass both the advance attainment and technical/economic feasibility tests to be deemed RACM.

Based on a comprehensive review of TCMs in other Serious or worse ozone nonattainment areas or otherwise identified, it is determined that the TCMs being implemented in the South Coast Air Basin are inclusive of all TCM RACM. None of the candidate measures reviewed herein that have not been implemented meet the criteria for RACM implementation.

SCAG and the local transportation agencies have established a comprehensive, formal process for identifying, evaluating, and selecting TCMs. The regular RTP, FTIP, and AQMP/SIP public update processes ensure that TCM identification and implementation is a routine consideration that helps SCAG and the South Coast AQMD in the effort to demonstrate attainment of applicable NAAQS.

Attachment A: Committed Transportation Control Measures (TCMs)[12]

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
BALDWIN PARK	LATP17S029	Construct 2.3 miles of Class I shared-use path ("trail"). Develop conceptual designs for 6.8 mile Class I trail along Walnut Creek and 15.3 miles of on-street Class II and Class III bikeways.	6/6/2022
BEVERLY HILLS	LAF9537	Beverly Hills Bike Share Program: Regionally-compatible, public bicycles for local/regional non vehicle mobility, first/last miles connection to bus and Purple Line rail transit, reduce air pollutants, promote healthy lifestyles	12/31/2022
BURBANK	LAF5701	Burbank Traveler Information and Wayfinding System -Installation of real-time bus arrival system on BurbankBus buses. The project will also completing wayfinding signage on major Bike corridors to help identify destination and travel distance for bicyclists.	4/30/2022
BURBANK	LAF9315	Traffic responsive system involving advanced traffic controllers, communications, video surveillance, and bicycle and system detection for 33 intersections in the City of Burbank	12/21/2021
BURBANK	LAF1502	San Fernando Bikeway. Implement a Class I Bikeway along San Fernando Blvd, Victory Place and Burbank Western Channel to complete the Burbank leg of a 12 mile bikeway.	12/31/2021
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
CALTRANS	LA0D73	Route 005: LA MIRADA, NORWALK & SANTA FE SPRINGS-ORANGE CO LINE TO RTE 605 JUNCTION. WIDEN FOR HOV & MIXED FLOW LNS, RECONSTRUCT VALLEY VIEW (EA 2159A0 = 21591, 21592+31320=2159U, 21593, 21594, 21595 PPNO 2808 = 4153, 2808, 4154, 4155, 4156, 4841). TCRP#42.2&42.1 (USE TOLL CREDITS AS LOCAL MATCH)	10/31/2022

[12] Projects may include TCM and non-TCM portions. Committed TCMs include only that portion of the projects that meets the definition of TCMs.

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
CALTRANS	LAF9301	Route 210: Implementation of I-210 Connected Corridors transportation management system that integrates freeway ramp meters, arterial signal systems, transit systems and traveler information [EA 32910].	12/30/2021
CALTRANS	LA000358	Route 005: --- FROM ROUTE 134 TO ROUTE 170 HOV LANES (8 TO 10 LANES) (CFP 346)(2001 CFP 8355). (EA# 12180, 12181,12182+12183=1218w,12184, 13350 PPNO 0142F,151E,3985,3986,3987) SAFETEA LU # 570. CONSTRUCT MODIFIED IC @ I-5 EMPIRE AVE, AUX LNS NB & SB BETWEEN BURBANK BLVD & EMPIRE AVE; AND MODIFY EXISTING STRUCTURES. ADD AUXILIARY LANE BETWEEN ALAMEDA AND OLIVE FROM PM 28.43 to PM 29.78	7/30/2022
CALTRANS	LA0B875	Route 10: HOV LANES AND PAVEMENT REHAB FROM CITRUS TO ROUTE 57 (EA# 11934 + 31120 = 1193U, PPNo 0310B+4812=0310B). USE TOLL CREDIT AS LOCAL MATCH.	12/31/2022
CARSON, CITY OF	LATP17M024	Design and construct a 1.8 mile bike and pedestrian path (Class 1 facility) along the top of the Dominguez Channel levee between Avalon Boulevard and 223rd Street / Wilmington Avenue in Carson.	9/1/2022
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
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
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. Utilizing Toll Credits to match ATP.	12/31/2022
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	8/1/2021

TABLE IV-C-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
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.	12/1/2021
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)	12/31/2021
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.	3/31/2022
DOWNEY	LAF5114	Telegraph Road Traffic Throughput and Safety Enhancement between the Rio Hondo River Channel to the San Gabriel River Channel, a distance of 2.2 miles. Project involves the construction of raised median islands, minor widening at intersections, transit priority system and bike (2.2 miles in length) and pedestrian circulation improvements.	6/30/2021
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
EL MONTE	LAF3125	Ramona Corridor Transit Center Access Project. Construct a new underpass structure on Ramona Blvd under Santa Anita Ave to access the lower level of the El Monte Transit Center. The proposed bus tunnel ramps will begin east of the Santa Anita Avenue and Ramona Boulevard Intersection on Ramona Boulevard and the tunnel will continue under Santa Anita Avenue (along Romona Boulevard) to the lower level of the El Monte Transit Center and includes 1 "bus only" lane in each direction.	12/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
EL MONTE	LA0G1180	A 0.5 mile Class III bike route with sharrows, a 0.7 mile Class II green-painted bike lane, and a 2 mile a Class II bike lane with buffer pavement stenciling. Improvements includes roadway resurfacing, highlighting, crosswalk improvements, camera installation at intersections, and wayfinding signage. The project runs 3.2 miles along Santa Anita from ELLIOT AVENUE (South) to WEST HONDO PARKWAY (North).	6/30/2022
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	LA0G1501	Construct Bus Layover Facilities Jointly by AVTA, LADOT & Foothill Transit	12/31/2023
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.	12/31/2022
GARDENA	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.	6/30/2022
GARDENA	LA0G1175	Computer Automated Dispatching/Automated Vehicle Location (CAD/AVL)Solution with Real Time Passenger Information Network. Adding TDC in construction phase to match 5307 in FY18/19 for $400.	12/31/2021
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.	12/31/2021
GLENDALE	LA0G1411	Honolulu Ave and Montrose Ave at Pennsylvania Ave Traffic Signal Modification (Route I-210 Fwy Connectivity)	12/31/2022
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).	10/18/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
HAWTHORNE	LAF7101	PRAIRIE AVENUE MOBILITY PROJECT : (1) Widens Prairie Av intersections at El Segundo Bl and at Rosecrans Av to construct double left-turn pockets for traffic flow improvement and to install Class III bike routes on both sides. (2) Traffic signal upgrade and synchronization of 8 intersections between 118th and Marine. (3) Installs Class III bike equipment, improves pedestrian facilities, and upgrades ADA access ramps, new median curbs and landscaping at intersections.	12/31/2021
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.	11/30/2022
HAWTHORNE	LA0G1547	Widen intersections, upgrade 6 traffic signal (including ADA ramps where signal upgrade impacts adjacent ramp), turn lane, striping, utilities, concrete, asphalt, curb, gutter, sidewalks, driveways, retaining walls, and raised medians. Rosecrans Avenue at Hawthorne Boulevard Rosecrans Avenue at Inglewood Avenue Rosecrans Avenue at Ocean Gate Avenue Rosecrans Avenue at Hindry Avenue Rosecrans Avenue at Isis Avenue Rosecrans Avenue at Aviation Boulevard	6/30/2022
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	6/20/2022
HUNTINGTON PARK	LA0G1669	This project will include new signal poles, conduit, wiring, controller cabinets and video detection. The 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.	2/1/2023
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.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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 intersections (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 new communication hubs at 3 intersections.	8/31/2021
LA CANADA-FLINTRIDGE	LAF5522	Foothill Blvd. Link Bikeway & Pedestrian Greenbelt Project, Briggs Ave. to Alta Canyada Rd, construct 1.5 miles of Class II Bike Lanes, bike and bus facilities, raised median and 0.5 miles of pedestrian beltway with lighting and hardscape.	1/31/2022
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.	12/31/2021
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	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	12/31/2022
LONG BEACH	LAF9130	Establishing a Great Street (Or Multimodal Corridor) in Long Beach - implementing the City's street prioritization framework. Improvement includes round-about, bus shelter upgrade, bulb-out, enhanced crossing, and Class II bike lane (3 miles)	5/1/2024
LONG BEACH	LAF7522	Delta Avenue Bicycle Boulevard. This north-south bicycle boulevard on Delta Ave (approximately 3 miles) in West Long Beach will consist of Class II lane segments and sharrow markings, traffic circles, traffic signal, and wayfinding signage to nearby Metro Blue Line stations and LA River Bike Path.	12/31/2021
LONG BEACH	LAF7316	ARTESIA CORRIDOR ATCS ENHANCEMENT PROJECT : (1) Upgrades traffic signals along Artesia Bl between Long Beach Bl and Downey Av to connect with Adaptive Traffic Control System (ATCS). (2) Installs CCTV and CMS on Artesia Bl. (3) Installs fiber optic cable and devices to connect signals to each other and traffic management center (TMC). (4) Two new traffic signals in Compton (5) Installs Class II bike lane in both directions from Atlantic Av to Susana Rd. (6) Pedestrian improvements.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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	LA0D461	RECONSTRUCT- THE OLD ROAD FROM HILLCREST PARKWAY TO LAKE HUGHES RD & WIDEN FROM 40' TO 68', 2 VEH. LANES and a 5' CLASS II BIKELANE IN EA DIR & STRIPPED MEDIAN (FROM 2 TO 4 LNS 2 EA DIR) for 2.1 miles.	6/30/2022
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.	6/30/2022
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)	6/30/2022
LOS ANGELES COUNTY	LAF5310	Ramona Boulevard/Badillo Street/Covina Boulevard TSSP/BSP. Implementation of a Traffic Signal Synchronization Project (TSSP) on Ramona Bl/Badillo St/Covina Bl from Santa Anita Av to the 57 Freeway. A Bus Signal Priority (BSP) project will be implemented on Ramona Bl/Badillo St from Tyler Av to Grand Av to give transit priority for Foothill Transit operations (approx.. 48 signal locations)	6/30/2022
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.	6/30/2022
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.	6/30/2022
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.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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.	9/30/2022
LOS ANGELES COUNTY	LAF3310	South Bay Forum Traffic Signal Corridors Project. Design and construction of multijurisdictional traffic signal synchronization, operational improvements & ITS components on arterials in the South Bay area of LA County. (approx. 40+ signals)	6/30/2022
LOS ANGELES COUNTY	LAF3309	Gateway Cities Forum Traffic Signal Corridors Proj, Phase VI. Design and construct multijurisdictional traffic signal synchronization, intersection operational improvements & ITS components on regional arterials in Gateway Cites area. (approx.. 126 signals)	6/30/2022
LOS ANGELES COUNTY	LAF3308	San Gabriel Valley Forum Traffic Signal Corridors Project. Design and construction of multijurisdictional traffic signal synch, intersection operational improvements, and intelligent transportation system components on regional arterials. Approx. 183 signals total.	6/30/2022
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	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	LAF7610	Aviation /LAX Green Line Station Community Linkages. The project includes improvements on corridors near the Metro Aviation/LAX Station including pedestrian and bicycle facilities, wayfinding signs, landscaping and traffic calming. An approximate total of 2 miles of bikeway and 2.5 miles of upgraded pedestrian facilities will be implemented.	6/1/2021
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.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF7308	EAST LOS ANGELES TRAFFIC SIGNAL CORRIDOR PROJECT : (1) Synchronizes traffic signals and implements upgrades at 13 signalized intersections along 3.5 mile segment of Eastern Av. between Medford St and Olympic Blvd. (2) Installs Fiber Optic Communications along Cesar Chavez Av, Ramona Bl, and Atlantic Bl to connect traffic signals to LADPW Advanced Transportation Management System (ATMS).	6/30/2022
LOS ANGELES COUNTY	LAF9511	South Whittier Community Bikeway Access Improvements: Construction of Class II & Class III bike facilities in the unincorporated County area of South Whittier along with various pedestrian intersection improvements	6/30/2022
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	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.	6/30/2022
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.	6/30/2022
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).	6/30/2022
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.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY	LAF7305	GATEWAY CITIES FORUM TRAFFIC SIGNAL CORRIDOR PROJECT : Designs and constructs ITS improvements along Norwalk Bl, San Antonio Dr, Pioneer Bl between Beverly Bl and Carson St including synchronization and retiming of traffic signals, equipment upgrades, system detection, CCTV cameras (up to 14 CCTVs), and changeable message signs.	6/30/2022
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.	6/30/2022
LOS ANGELES COUNTY	LATP17M026	Install new raised bike lanes and sidewalks on an existing 4-lane, 0.8-mile roadway segment of Temple Avenue, between the cities of Walnut and Pomona. This gap closure project will connect bike and pedestrian facilities, two large colleges and employers in to adjacent cities. Sidewalk and bike lane are both 0.8 miles.	3/16/2022
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.	12/30/2021
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 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	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.	6/30/2021
LOS ANGELES COUNTY MTA	LA0G1169	Brighton to Roxford double track: This project adds 11 miles of 2nd track between Burbank and Sylmar on Metrolink's Antelope Valley Line (AVL). The project will eliminate the current bottleneck and improve on time performance and operational reliability on the AVL. This project will be designed to be compatible with the potential future high speed rail alignment.	12/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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
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.	12/31/2021
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	LATP17S022	The USC Bike Share Project will increase bike modal share by installing a bike-share kiosk network and bike fleet throughout many key locations within project area. Project is within 3 neighborhoods near Downtown Los Angeles where 5 Metro Rail stations are located- includes key destinations such as USC, the LA Coliseum and Sports Arena, LA Trade Technical College, and museums within Exposition Park. An encouragement and education effort is included. Utilizing Toll Credits to match ATP funds.	3/1/2021
LOS ANGELES COUNTY MTA	LA0G1550	The Patsaouras Plaza Busway Station project - a new transit busway station for the Metro Silver Line and other transit buses operating on the El Monte Busway.	6/30/2023
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)	6/30/2022
LOS ANGELES COUNTY MTA	LA0G447	Metro Purple Line Westside Subway Extension Section 1 - Wilshire/Western to La Cienega	12/31/2023
LOS ANGELES COUNTY MTA	LATP19S011	Doran Street Grade Separations Active Transportation Access Project: This project will construct two bridges for shared use by pedestrians and cyclists across Verdugo Wash, San Fernando Road, railroad tracks, and SR-134. Linked to LA0G1050 (Doran Street and Broadway/Brazil safety and access project). The current estimated approximate bridge span lengths are 300 ft for the River Access Bridge and approximately 400 ft for the River Walk Bridge.	12/31/2024

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES COUNTY MTA	LA0G440	The project will extend the HOV lanes on I-5 from the SR-14 interchange to just south of the Parker Road interchange (I-5 PM 45.4 - 59.0), incorporating an additional northbound truck climbing lane from SR 14 to Calgrove Boulevard and an additional southbound truck climbing lane from Pico Canyon Road/Lyons Avenue to SR-14. Includes ITS HUB (I-5 PM 41.4 - 43.8) and extended project limits related to pavement delineation and advanced signage (I-5 PM 45.0 - 59.6).	12/31/2024
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	6/30/2022
LOS ANGELES COUNTY MTA	LA0G642	Metro Purple Line Westside Subway Extension Section 3	6/30/2027
LOS ANGELES COUNTY MTA	LA0G640	Pacific Surfliner Corridor - Raymer/Bernson Double Track Improvements - upgrade the rail corridor from a single track to a double track, install concrete ties on both tracks, install four new special trackwork turnouts, nine at-grade crossings and two bridges, a new second platform & new fencing at Northridge and a new pedestrian underpass. Other enhancements include signal relocation, utility relocation and drainage improvements.(PPNO 2098)	12/31/2021
LOS ANGELES COUNTY MTA	LA0G1052	Metro Purple Line Westside Subway Extension Section 2 - Wilshire/La Cienega to Century City	6/30/2026
LOS ANGELES COUNTY MTA	LATP17S023	The San Gabriel Valley Bike Share will increase bicycle modal share by installing a network of bike-share kiosks with a fleet of bicycles throughout 15 of the 30 San Gabriel Valley cities. The project will expand LA Metro's existing bike share network in Downtown Los Angeles and will include 840 bicycles at 84 bike share stations near transit hubs, employment centers, and colleges. A public education and awareness campaign is included.	2/25/2021
LOS ANGELES, CITY OF	LAF5518	This project is located in the City of Los Angeles in the West San Fernando Valley. Construction of a bicycle/pedestrian path from Owensmouth Av to Mason Av (1.25 miles) along the south bank of the LA River. Includes underpasses at De Soto Av and Canoga Av/Busway bridges. The project will include lighting, railing, striping and signage and a connection structure to the Metro Orange Line bikeway.	6/30/2021
LOS ANGELES, CITY OF	LAF3171	De Soto Ave Widening: Ronald Reagan Fwy to Devonshire St.. Minor widening of De Soto Ave fr SR-118 to Devonshire St to provide uniform roadway width in each direction as well as installing 10' sidewalk, curb and gutter. Sidewalk is 1.1 miles, 90% of the sidewalks along the project limits will be new.	6/30/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES, CITY OF	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.	6/30/2022
LOS ANGELES, CITY OF	LAF3515	San Fernando Rd. Bike Path Ph. IIIB Construction. Construct 2.75 mile Class I bike path within METRO right-of-way along San Fernando Rd. between Tuxford St. and Cohasset St. to complete 12-mile bikeway.. The project is located within the City of Los Angeles, in the community of Sun Valley. The project consists of a Class I facility 12 feet in width and 2.75 miles in length between Tuxford St. and Cohasset St. (Burbank City limit).	6/30/2021
LOS ANGELES, CITY OF	LA0G901	Historic Los Angeles Streetcar	12/30/2021
LOS ANGELES, CITY OF	LAF5525	To design and construct curb-side bicycle parking (bicycle corral) that will serve each Council District. The project requires surface modifications to curbside parking areas for installing at least 150 bike racks.	6/30/2022
LOS ANGELES, CITY OF	LATP17S005	The City of Los Angeles will be implementing complete street treatments to improve Jefferson Boulevard between Vermont Avenue and Western Avenue, which includes buffered Class II (0.35 mi) and Class IV (0.65 mi) bicycle facilities, curb extensions, pedestrian refuge areas, path improvements, pedestrian lighting, and additional shade trees with Road Diet from 4 to 2 lanes (1 mile).	5/15/2023
LOS ANGELES, CITY OF	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.	4/26/2022
LOS ANGELES, CITY OF	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.	10/1/2022
LOS ANGELES, CITY OF	LAF9422	LADOT will procure seven (7) 30-ft Electric clean fuel vehicles to reduce headways on six selected DASH routes	4/30/2022
LOS ANGELES, CITY OF	LA0G1566	Purchase of up to 120 electric 30' to 35' buses for the DASH program expansion	9/26/2022
LOS ANGELES, CITY OF	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

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
LOS ANGELES, CITY OF	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.	12/31/2021
LOS ANGELES, CITY OF	LA0G1380	Purchase of 170 solar-powered, real-time bus arrival information signs for bus stop improvement in the Los Angeles Promise Zone	6/30/2022
LOS ANGELES, CITY OF	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, CITY OF	LA0G1349	Purchase 35 alternative-fuel 30-foot buses to expand DASH fleet and increase service hours and headways.	12/31/2022
LOS ANGELES, CITY OF	LAE3764	Sepulveda Boulevard Closed-Circuit Television Traffic Signal Improvement Signal Sync	4/30/2025
LOS ANGELES, CITY OF	LA0C53	HOLLYWOOD INTERMODAL TRANSPORTATION AND PUBLIC PARKING CENTER ON HAWTHORNE AVE. BETWEEN HIGHLAND AVENUE AND NORTH ORANGE DRIVE (EXIST 500 SP PARK STRUCTURE).TCRP#49.2	10/1/2020
LOS ANGELES, CITY OF	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. Utilizing Toll Credits to match ATP funds.	6/30/2023
LOS ANGELES, CITY OF	LAF1524	San Fernando Rd. Bike Path Ph. IIIA - Construction. Recommend Phase IIIA-Construction of a Class I bike path within Metro owned rail right-of-way along San Fernando Rd. between Branford St. and Tuxford St incl bridge. 2 mile bikepath.	6/30/2021
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.	6/30/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
MALIBU	LA0G910	Pacific Coast Highway Regional Traffic Message Systems. The project will enable the City of Malibu and other agencies to notify travelers of critical regional traffic and safety information and facilitate traffic flow throughout the region. The project will install a maximum of 4 permanent changeable message signs at strategic locations along PCH/SR-1 corridor in the City of Malibu.	3/31/2021
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
MONTEBELLO	LATP17M028	The project consists of dedicated Class II bike lanes, sidewalk construction, ADA-compliant corner ramps, and pedestrian lighting and traffic signal improvements along Montebello Boulevard to connect retail/employment centers with low/moderate income housing to increase active transportation-related activities. 1.4 miles from Lincoln Ave to Paramount Blvd.	3/16/2022
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	3/31/2021
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
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.)	12/31/2022
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	LAF3701	Pasadena ARTS Enhanced Passenger Information. Enhancement of the Pasadena Area Rapid Transit System Vehicle Arrival Information System via telephone and 26-50 wayside signs..	12/31/2021

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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.	6/30/2022
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
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
REDONDO BEACH	LA0G1423	Purchase and install a Real Time Passenger Information System on Beach Cities Transit fixed route buses.	6/30/2022
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.	6/30/2022
REDONDO BEACH	LAF5301	Grant Avenue Signal Improvements. This project is located in Redondo Beach in the South Bay subregion on Grant Av between Inglewood Av and Aviation Bl. The project will upgrade six existing traffic signals. The project involves synchronization, bike detection, signal replacement, video detection, adaptive signal coordination, wireless connection and integration into the Redondo Beach Traffic Management Center (TMC).	6/30/2022
REDONDO BEACH	LAF7521	BICYCLE TRANSPORTATION PLAN IMPLEMENTATION PHASE II: (1) Road diet with bidirectional Class 2 bike lanes on Prospect Av (3.33mi) and on Catalina Av (1.63mi). (2) Installs bulbouts at stop-controlled intersections on Catalina. (3) Installs roundabout on North Harbor Dr at Yacht Club Wy and at Herondo St. (4) Installs high-visibility crosswalks at all-way controlled intersections and at crossings approaching the roundabout.	12/31/2023
REDONDO BEACH	LA0D29	CITY BUS TRANSFER STATION. Relocate existing transit terminal & construct new transit center w/12 bus bays, pax waiting area & info center, & driver lounge. Property provides 339 public pkg spaces (plus 2 for staff maint & security) & bicycle facilities. Location 1521 Kingsdale Ave, RB, CA 90278. Project also includes minor surface street improvements on Kingsdale Ave and 182nd : Kingsdale widening adds dedicated right turn lane and 182nd restriping removes bus layover and adds a bike lane.	6/30/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SAN FERNANDO	LAF9313	This project improves operation of 6 major arterials by synchronizing 35 intersections along 6 corridors, minor lane/signal modification & installation of 3 changeable message signs.	3/31/2023
SANTA CLARITA	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.	6/30/2022
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	LAF7320	This project will enhance the existing Traffic Management System with the installation of video detection systems. The new equipment will facilitate detection of bicycles at intersections resulting in enhanced multi-modal signal timing. The detection of bicycles at intersections would optimize signal timing and create shorter call times for the transit corridors. New traffic signal poles may be required to install the video equipment.	12/31/2021
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	Installation of 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) while Class III bike routes with shared-lane markings will be installed 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). The scope of work also includes installation of bike parking at the Civic Center and wayfinding/signage.	6/30/2022
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

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SOUTH GATE	LAF7309	TWEEDY BOULEVARD SIGNAL SYNCHRONIZATION PROJECT : (1) Interconnects 18 traffic signals using fiber optic cable and wireless communications (2) synchronizes signal timing to improve traffic flow, and reduces delays along the 2.7-mile arterial. (3) Install a Closed Circuit Television Camera (CCTV) at the intersection of Long Beach Bl to support the Advance Transportation Management Systems (ATMS).	4/30/2022
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	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.	12/31/2021
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
SOUTHERN CALIF REGIONAL RAIL AUTHORITY	LA0G1298	Procurement of two (2) new locomotives to increase Metrolink service frequency and reduce headways. The locomotives will be EPA Tier-4 F-125 units that will improve emissions, reliability and performance relative to the F59 locomotives currently in service.	12/31/2022
TORRANCE	LA0G358	South Bay Regional Intermodal Transit Center Project at 465 N. Crenshaw Blvd., Torrance, CA 90503.	6/30/2022
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. $258k of Toll Credits being used to match STPL funds in CON for FY20/21.	12/31/2022
TORRANCE	LA0G1280	Purchase of seven (7) all electric buses for a new circulator service. Rubber-wheel trolley service will operate in Old Town area, as well as hotel and financial district on Hawthorne Blvd. Origin/terminus is at the Torrance Transit Park and Ride Regional Terminal (465 Crenshaw Blvd).	12/31/2022

TABLE IV-C-A-1. LOS ANGELES COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
VERNON	LATP17M018	The project will install one-way protected cycle tracks (Class II - 1.13 miles) with a raised curbed buffer on Pacific Boulevard between Santa Fe Avenue and Fruitland Avenue and install safety improvement at signalized and uncontrolled crosswalk locations along Pacific Boulevard and at the uncontrolled cross location at Santa Fe Avenue and 52nd Street.	11/1/2022
WESTLAKE VILLAGE	LA0G1682	The project consists of a one (1) mile curvilinear pedestrian walkway extending along Lindero Canyon Rd from Agoura Road to Foxfield Drive, creating a safe corridor for pedestrians by eliminating the need to walk in the street, which has a 45mph speed limit and had a history of pedestrian/vehicular accidents. The project includes bioswales and infiltration elements, site lighting, seat walls, landscape improvements.	12/31/2022
WHITTIER	LAF7519	WHITTIER GREENWAY TRAIL EAST EXTENSION : This 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. $247 in Toll Credits added in FY 19 to match CMAQ	1/31/2022
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)	6/30/2021
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.	6/30/2021

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ANAHEIM	ORA151509	West Street and Citron Street Sidewalk Gap Closure - Construction of sidewalk gap closures to create new 5-ft-wide sidewalk, curb and gutter, and drainage facilities along West and Citron Streets, as well as non-infrastructure activities. Toll Credit for ATP-MPO.	2/1/2023

TABLE IV-C-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.	6/30/2023
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	ORA172202	OC Loop El Cajon Bikeway Gap Closure (Segment H) - Install Class II, III & IV bikeway facilities within the City of Yorba Linda, Anaheim & unincorporated Orange County spanning 1.2 miles from Fairlynn Blvd to the terminus of the existing Santa Ana River Regional Riding & Hiking Trail and Bikeway.	10/31/2026
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA130099	Purchase (15) Expansion Paratransit Vans (OCTA)	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA171401	Six 40' Compressed Natural Gas Expansion Buses (Route 529)	9/30/2024
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA080909	OC STREETCAR BETWEEN SARTC AND A NEW TRANSIT CENTER IN GARDEN GROVE, NEAR THE INTERSECTION OF HARBOR BOULEVARD AND WESTMINSTER AVENUE. (Transit Development Credit Match for FHWA Transfer FY16/17 is $306k & TDC Match for FHWA Transfer FY18/19 is $2.822M)	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030605	I-405 FROM SR-73 TO I-605. Add 1 MF lane in each direction and additional capital improvements (by 2022), convert existing HOV to HOT. Add 1 additional HOT lane each direction. Combined with ORA045, ORA151, ORA100507, ORA120310, and ORA030605A. Signage from PM 7.6 to 24.2	12/31/2026
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA085004	Anaheim Canyon Station project will add double track and another platform as well as extend the existing platform to be in conformance with the Metrolink standards for passenger platform length. (TDCs in FY18/19 $136 for DES, $29 for ROW and $2,532 for CON; 5307 FHWA Transfer: $43 in FY19/20 from Orange Parking Structure savings already in FTA grant CA-2017-072)	12/31/2022

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA030612	PLACENTIA TRANSIT STATION - E OF SR-57 AND MELROSE ST AND N OF CROWTHER AVE. CONSTRUCT NEW METROLINK STATION AND RAIL SIDING PPNO 9514	12/31/2022
ORANGE COUNTY TRANS AUTHORITY (OCTA)	ORA190701	Orange County Traffic Signal Synchronization Projects: El Toro Road, Magnolia Street and Brookhurst Street. El Toro Road (Bridger Road to Orange Street): 9 miles and includes 20 traffic signals. Magnolia Street (Banning Avenue to Commonwealth Avenue): The 16.2 miles and includes 50 traffic signals. Brookhurst Street (PCH to Commonwealth Avenue): The 16.5 miles and includes 58 traffic signals	1/31/2022
ORANGE COUNTY TRANS 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
SANTA ANA	ORA190901	Freemont 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.	12/15/2024
SANTA ANA	ORA152212	Bristol Street Protected Bicycle Lanes - Install 1.25 mile protected bike lane on Bristol Street from Edinger Avenue to 1st Street.	6/30/2023
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	ORA152210	Bristol Street - Edinger Avenue Class II Bike Lanes - Install a 1.25 mile Class II Bike Lane on Bristol Street from Sunflower Avenue to Central Avenue and install a .5 mile Class II Bike Lane on Edinger Avenue from Bristol Street to Flower Street.	6/30/2023
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
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

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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.	12/15/2024
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.	12/15/2024
TCA	10254	SAN JOAQUIN HILLS TRANSPORTATION CORRIDOR (SJHTC - SR 73). 15 MI TOLL RD BETWEEN 1-5 IN SAN JUAN CAPISTRANO & RTE 73 IN IRVINE, CONSISTENT WITH SCAG/TCA MOU 4/5/01. EXISTING 3 M/F EA DIR. 1 ADDITIONAL M/F EA DIR, PLUS CLIMBING & AUX LANES BY 2022.	Undergoing TCM Substitution
TCA	ORA051	FOOTHILL TRANSPORTATION CORRIDOR-NORTH (FTC-N - SR 241). 12.7 MI TOLL ROAD BETWEEN OSO PKWY AND ETC, CONSISTENT WITH SCAG/TCA MOU 4/05/01. EXISTING 2 M/F IN EA DIR. 2 ADDITIONAL M/F, PLS CLIMBING & AUX LANES BY 2022.	Undergoing TCM Substitution
TCA	ORA050	EASTERN TRANSPORTATION CORRIDOR (ETC- SR 241/261/133) 26.4 MI TOLL ROAD CONNECTS SR 91 to I-5 via SR 261 and SR 133, CONSISTENT WITH SCAG/TCA MOU 4/05/01. EXISTING 2 M/F EA DIR. 2 ADDITIONAL M/F IN EA DIR, PLUS CLIMBING AND AUX LANES BY 2022.	Undergoing TCM Substitution
VARIOUS AGENCIES	ORA111207	241/91 EXPRESS LANES (HOT) CONNECTOR: NB SR-241 TO EB SR-91, WB SR-91 TO SB SR-241.	12/31/2035
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)	4/30/2027
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
VARIOUS AGENCIES	ORA111209	LAGUNA NIGUEL TO SAN JUAN CAPISTRANO PASSING SIDING - ADD 1.8 MILES OF NEW RAILROAD TRACK ADJACENT TO THE EXISTING MAIN TRACK. (INCLUDES SLOPE STABILIZATION/RETAINING WALL) MP 193.9 - MP 195.7 (project will utilize TDC Match - 5307 FHWA Transfer: $438 in FY13/14; $2,125 in FY16/17. CMAQ: $264 in FY21/22. 5307 FHWA Transfer: $47 in FY19/20 from Orange Parking savings already in grant CA-2017-072)(PPNO 2107)	2/28/2023

TABLE IV-C-A-2. ORANGE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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

TABLE IV-C-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
CITY OF EASTVALE	RIV210402	in the City of Eastvale: Pedestrian Safety Improvement Project - Construction of sidewalk along Hall Avenue between Chandler Street and Walters (approximately 2,000 sf), Citrus Street between Scholar Way and Carrollton Place (1,420 ft) and handicap ramp at the intersection of Schleisman Road and Sumner Avenue.	12/31/2021
CITY OF JURUPA VALLEY	RIV160504	IN WESTERN RIVERSIDE COUNTY FOR THE CITY OF JURUPA VALLEY - SRTS PROJECT TO PROVIDE CURB, GUTTER, SIDEWALK, AND DIRT TRAILS ALONG MARTIN ST, 48TH ST, AND TROTH ST, INCLUDING LED CROSSWALK FLASHERS AT THE MARTIN/BELLEGRAVE INTERSECTION AND CURB BUMP OUTS AT THE MARTIN ST INTERSECTIONS.	12/31/2024
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
RIVERSIDE COUNTY	RIV181007	IN WEST RIV CO IN UNINCORPORATED CABAZON : CABAZON SRTS SIDEWALK SAFETY IMPROVEMENTS: INSTALL 3,000 LF OF NEW S/W, CURB&GUTTER, PAVEMENT WIDENING, ADA CURB RAMPS, DRIVEWAY APPROACHES, SIGNS, MARKINGS ALONG THE EAST SIDE OF BROADWAY ST. (B/W CARMEN AVE & 400 FT. S/O MAIN ST) & ALONG THE S/S OF CARMEN AVE (B/W ALMOND ST & CABAZON ELEMENTARY) (ATP-3 AUG-STATEWIDE) (STATE-ONLY FUNDS)	12/31/2022
RIVERSIDE COUNTY TRANS COMMISSION (RCTC)	RIV200105	In Western Riverside County - Continue the implementation of subsidies for eligible vanpools commuting to worksites in Western County.	12/30/2030

TABLE IV-C-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
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 AND AUXILARY LANE ALONG SR91. CONSTRUCT ADDITIONAL SIGNAGE ALONG SR91 AT PM R18.0 IN OR COUNTY.	6/30/2023
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
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
RIVERSIDE, CITY OF	RIV181012	IN WESTERN RIVERSIDE COUNTY IN THE CITY OF RIVERSIDE - LA SIERRA NEIGHBORHOOD SIDEWALK IMP: INSTALLATION OF 1.28 MILE OF ADA-COMPLIANT SIDEWALK ON CARMINE ST, RICHMOND ST, NORWOOD AVE. FROM COLLEGE AVENUE TO SIERRA VISTA AVE., ON DOVERWOOD DR. FROM BUTLER DR. TO LA SIERRA AVE., ON A PORTION OF BUTLER DR. AND ON COLLEGE AVE FROM DOVERWOOD DR. TO NORWOOD AVE. (ATP-3 AUG STATEWIDE, SOF)	3/30/2023
RIVERSIDE, CITY OF	RIV140841	IN WESTERN RIVERSIDE COUNTY FOR CITY OF RIVERSIDE-IOWA AVE & MLK BLVD BIKE IMPROVEMENTS: CONSTRUCT 0.8 MI 10 FT WIDE TWO DIR MULTI-USE PATH ON N.SIDE OF MLK BLVD B/W CANYON CREST DR & CHICAGO AVE & WIDENING IOWA AVE B/W MLK BLVD & EVERTON PL INCLUDES GRADING, ASPHALT PAVING, SIGNS, & RESTRIPING & INSTALL 6 FT CLASS II BIKE LNS FOR 0.8 MI WITH 2 FT BUFFERS	12/31/2020

TABLE IV-C-A-3. RIVERSIDE COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
RIVERSIDE, CITY OF	RIV160404	IN WESTERN RIVERSIDE COUNTY FOR THE CITY OF RIVERSIDE - CITYWIDE BIKE AND PEDESTRIAN IMPROVEMENTS INCLUDING: INSTALL OF 5.5 MI OF CLASS II BIKE LANES ON CENTRAL AVE; 2.4 MI OF CYCLE TRACKS ON WATKINS DR AND CANYON CREST; SHARROW PAVEMENT MARKINGS AROUND FAIRMOUNT PARK; 20 BIKE RACKS THROUGHOUT DOWNTOWN AREA; & HAWK SIGNALS AT 3 UNCONTROLLED CROSSWALKS.	12/31/2024

TABLE IV-C-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	6/30/2022
OMNITRANS	20151301	REDLANDS PASSENGER RAIL PROJECT (RPRP): NEW PASSENGER RAIL SERVICE FROM RIALTO / E ST IN SAN BERNARDINO TO REDLANDS. (SBCTA is sub recipient of FTA funds & is actual project Lead Agency)(TD Credits: 5307-TR FTA FUNDS FY19/20 $3,998) (THE PROJECT MANAGEMENT COST OF APPROX $20M IN LOCAL FUNDS IS NOT INCLUDED IN FTIP TOTAL COST.)(Includes locomotive purchase from study project 20151303)	12/31/2021
OMNITRANS	20150307	COUNTY-WIDE VANPOOL PROJECT (Ongoing)(TDC: FY16/17 CMAQ CON $460k)	6/30/2023
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	201186	AT SR-210/BASE LINE IC: RECONSTRUCT/WIDEN BASE LINE BETWEEN CHURCH AVE AND BOULDER AVE FROM 4 TO 6 THROUGH LANES AND EXTEND LEFT TURN LANES, WIDEN RAMPS : WB EXIT 1 TO 3 LANES, WB AND EB ENTRANCES 1 TO 3 LANES INCLUDING HOV PREFERENTIAL LANES (EA 1C970)	12/31/2022
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

TABLE IV-C-A-4. SAN BERNARDINO COUNTY			
LEAD AGENCY	**PROJECT ID**	**PROJECT DESCRIPTION**	**COMPLETION DATE**
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY	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	20159902	I-10 CORRIDOR EXPRESS LANE WIDENING (Contract 1): FROM SAN ANTONIO AVE TO I-10/I-15 IC; IMPLEMENT 2 EXPRESS LNS IN EACH DIRECTION FOR A TOTAL OF 4 GENERAL PURPOSE AND 2 EXPRESS LNS IN EACH DIRECTION AND AUX LANE WIDENING, UNDERCROSSINGS, OVERCROSSINGS, AND RECONSTRUCTION OF RAMPS AND LANE TRANSITIONS WHERE NEEDED. (Toll Credits to match STP, CMAQ) (Toll System Provider (TSP) split as 20159902a)	10/1/2023

Attachment B: Reasonably Available Control Measure (RACM) Analysis - TCMs

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
1.1	Regional Express Bus Program	Purchase of buses to operate regional express bus services.	Yes		CTCs (MTA, OCTA), Transit Operators
1.2	Transit access to airports	Operation of transit to airport to serve air passengers.	Yes		Transit Operators, Burbank Glendale Pasadena Airport, CTCs (MTA, SCRRA)
1.3	Accelerate Bus Retrofit Program	Accelerate application of retrofit of diesel-powered buses to achieve earlier compliance with state regulations.	Yes		CTCs (MTA, OCTA), Transit Operators
1.4	Mass transit alternatives	Major change to the scope and service levels.	Yes		SCAG, CTCs
1.5	Expansion of public transportation systems	Expand and enhance existing public transit services.	Yes		CTCs
1.6	Transit service improvements in combination with park-and-ride lots and parking Management	Local jurisdictions and transit agency improve the public transit system and add new park-and-ride facilities and spaces on an as needed basis.	Yes		CTCs (MTA, SCRRA)

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
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 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. Note that the Mobile Source Air Pollution Reduction Review Committee (MSRC) has been co-funding free event center shuttle service projects.	
1.8	Require that government employees use transit for home to work trips, expand transit, and encourage large businesses to promote transit use	Require all government employees use transit a specified number of times per week, or expand transit, and encourage business to promote transit use.	Yes		CTCs
1.9	Increase parking at transit centers or stops	Encourage transit convenience by providing additional parking at transit centers.	Yes		CTCs
1.10	Expand regional transit connection ticket distribution	Provides interchangeability of transit ticket.	Yes		CTCs, Metrolink
1.11	Bus Signal Priority	Wireless bus signal priority system on bus fleets for increased operation efficiency and travel time savings.	Yes		Transit Agencies

Section 108 (f) 1. Programs for Improved Public Transit					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
1.12	Passenger rail improvements	Installation of additional platforms, double tracks, concrete ties, bridges, signal relocation.	Yes		Cities, Transit Agencies
1.13	Alternative Fuel Buses	Self-explanatory.	Yes		Cities, Transit Agencies
1.14	Intermodal Centers	Improved transit connection of various travel modes	Yes		Cities, Transit Agencies
1.15	Maglev	Construct regional low-speed magnetic levitation transit	No	Though considered in past SCAG transportation plans, Maglev has never been a committed TCM; in addition, the region is already being serviced by light rail; Not Cost-effective.	
1.16	High Speed Rail	Construct high speed rail connecting large metropolitan centers in the state	Yes		HSRA
1.17	**Public transit facility improvements and operating assistance**	**Construct and/or improve bus and rail terminals, stations, and maintenance facilities**	**Yes**		**CTCs, Transit Agencies**
1.18	**Paratransit Service**	**Self-explanatory**	**Yes**		**CTCs, Cities, Transit Agencies**
1.19	**Express Busways/Dedicated Bus Lanes**	**Construct bus-only lanes**	**Yes**		**CTCs**

Section 108 (f) 2. Restriction of Certain Roads or Lanes to, or Construction of Such Roads or Lanes for Use By, Passenger Buses or High Occupancy Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
2.1	Update High Occupancy Vehicle (HOV) Lane Master Plan	Analysis of increased enforcement, increasing occupancy requirements, conversion of existing HOV lanes to bus only lanes and/or designation of any new carpool lanes as bus-only lanes; utilization of freeway shoulders for peak-period express bus use; commercial vehicle buy-in to HOV lanes; and appropriateness of HOV lanes for corridors that have considered congestion pricing or value pricing.	Yes		SCAG, Caltrans, CTCs
2.2	Fixed lanes for buses and carpools on arterials	Provide fixed lanes for buses and carpools on arterial streets where appropriate.	Yes		CTCs (MTA, OCTA), LA City
2.3	Expand number of freeway miles available, allow use by alternative fuel vehicles, changes to HOV lane requirements and hours	Various measures evaluated in many ozone nonattainment areas. Specifics vary according to freeway system, use patterns and local characteristics.	Yes		CARB, Caltrans
2.4	Express toll lanes/High Occupancy Toll (HOT) Lanes	Self-explanatory.	Yes		Caltrans, CTCs

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.1*	Commute solutions	The federal *Commuter Choice Program* provides for benefits that employers can offer to employees to commute to work by methods other than driving alone.	Yes		Employer, SOUTH COAST AQMD
3.2*	Parking cash-out	State law requires certain employers who provide subsidized parking for their employees to offer a cash allowance in lieu of a parking space.	Yes		Employer, CARB
3.3*	Employer Rideshare Program Incentives	Employer rideshare incentives and introduction of strategies designed to reduce single occupant vehicle trips. Implementation includes information systems and marketing. Examples include: employee awareness campaigns, Transportation Management Associations (TMA) membership, alternative work hours, and financial incentives.	Yes		CTCs, Caltrans, Employer, SOUTH COAST AQMD
3.4*	Implement Parking Charge Incentive Program	Evaluate feasibility of an incentive program for cities and employers that convert free public parking spaces to paid spaces. Review existing parking polices as they relate to new development approvals.	Yes		Cities, Counties, Employer

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.5*	Preferential parking for carpools and vanpools	This measure encourages public and private employers to provide preferential parking spaces for carpools and vanpools to decrease the number of single occupant automobile work trips. The preferential parking could include covered parking spaces or close-in spaces.	Yes		Employer, SOUTH COAST AQMD
3.6*	Employee parking fees	Encourage public and private employers to charge employees for parking.	Yes		Employer, SOUTH COAST AQMD
3.7	Merchant transportation incentives	Implement "non-work" 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	Require state legislation.	
3.8*	Purchase/lease/third-party vans for vanpool programs	Provide a specified number of vans for use in employee commute travel.	Yes		Employer, SOUTH COAST AQMD

* *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by South Coast AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 3. Employer-Based Transportation Management Plans, Including Incentives					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
3.9*	Encourage regulated employers to subsidize the cost of transit for employees	Provide outreach and possible financial incentives to encourage local employers to provide transit passes or subsidies to encourage less individual vehicle travel.	Yes		Employer, SOUTH COAST AQMD
3.10*	Compressed work weeks	Work 80 hours in 9 days, or 40 hours in 4 days, or 36 hours in 3 days in lieu of working 40 hours in 5 days.	Yes		Employer, SOUTH COAST AQMD
3.11*	Telecommuting	Goal of specified percentage of employees telecommuting at least one day per week.	Yes		Employer, SOUTH COAST AQMD
3.12	Income Tax Credit to Telecommuters	Provide tax relief to employees who participate in telecommuting programs.	No	Requires State legislation.	
3.13*	**Extend parking cash-out rule to more employers**	**Self-explanatory**	**No**	**Requires State legislation.**	
3.14	**Bike to Work Day/Month**	**Encourage biking to work during bike awareness month. Provide outreach activities, education on the bike-to-work option, and provide assistance in trying to bike to work.**	**Yes**		**Employers, Cities, Counties, VCAPCD, CTCs**

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Section 108 (f) 4. Trip Reduction Ordinance

In December 1995, Congress changed the Clean Air Act Amendments to make the Employee Commute Option program voluntary (no longer mandatory). California State Law prohibits mandatory employer based trip reduction ordinance programs (SB437). (HSC 40717.9) To account for these restrictions, SOUTH COAST AQMD Rule 2202 provides employers with a menu of options to reduce mobile source emissions generated from employee commutes. Rule 2202 complies with federal and state Clean Air Act requirements, HSC 40458, and HSC 182(d)(1)(B) of the federal Clean Air Act. Nevertheless, some jurisdictions continue to implement Trip Reduction Ordinances. For example, the City of Santa Monica requires new and existing non-residential development projects to adopt Emission Reduction Plans and pay transportation impact fees to reduce traffic congestion and improve air quality in the city.

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions

Measure #	Measure Title	Description	Has It Been Implemented	Reasoned Justification for Not Implementing Measure	Implementing Agency or Agencies
5.1	Develop Intelligent Transportation Systems	The term "Intelligent Transportation Systems" includes a variety of technological applications intended to produce more efficient use of existing transportation corridors. Includes measures like ramp-metering, and real-time transit information systems.	Yes		CTCs, Caltrans, and Cities
5.2	Coordinate traffic signal systems	This measures implements and enhances synchronized traffic signal systems to promote steady traffic flow at moderate speeds.	Yes		CTCs, Counties, and Cities
5.3	Reduce traffic congestion at major intersections	This measure implements a wide range of traffic control techniques designed to facilitate smooth, safe travel through intersections. These techniques include signalization, turn lanes or median dividers. The use of grade separations may also be appropriate for high volume or unusually configured intersections.	Yes		CTCs, Counties, and Cities

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.4	Site-specific transportation control measures	This measure could include geometric or traffic control improvements at specific congested intersections or at other substandard locations. Another example might be programming left turn signals at certain intersections to lag, rather than lead, the green time for through traffic.	Yes		CTCs, Counties, and Cities
5.5	Removal of on-street parking	Require all commercial/industrial development to design and implement off-street parking.	Yes		CTCs, Counties, and Cities
5.6	Reversible lanes	Implement reversible lanes on arterial streets to improve traffic flow where appropriate.	Yes		CTCs, Counties, and Cities
5.7	One-way streets	Redesignate streets (or portions of in downtown areas) as one-way to improve traffic flow.	Yes		CTCs, Counties, and Cities
5.8	On-Street parking restrictions	Restrict on-street parking where appropriate.	Yes		CTCs, Counties, and Cities
5.9	Bus pullouts in curbs for passenger loading	Provide bus pullouts in curbs, or queue jumper lanes for passenger loading and unloading.	Yes		CTCs, Counties, and Cities
5.10	Additional freeway service patrol	Operation of additional lane miles of new roving tow truck patrols to clear incidents and reduce delay on freeways during peak periods.	Yes		CTCs, CHP
5.11	Fewer stop signs, remove unwarranted and "political" stop signs and signals	Improve flow-through traffic by removing stop signs and signals. Potential downside in safety issues.	Yes		CTCs, Counties, and Cities

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
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.	
5.13	Changeable lane assignments	Increase number of one-way lanes in congested flow direction during peak traffic hours.	Yes		Caltrans, CTCs, Counties, and Cities
5.14	Adaptive traffic signals and signal timing	Self-explanatory.	Yes		Counties, Counties, and Cites
5.15	Freeway bottleneck improvements (add lanes, construct shoulders, etc.)	Identify key freeway bottlenecks and take accelerated action to mitigate them.	Yes		Caltrans, SCAG
5.16	Minimize impact of construction on traveling public. Have contractors pay when lanes are closed as an incentive to keep lanes open.	Prohibit lane closures during peak hours, limit work to weekends and/or nights.	Yes		Caltrans
5.17	Internet provided road and route information	Reduce travel on highly congested roadways by providing accessible information on congestion and travel.	Yes		CTCs, Caltrans, Counties, Cities
5.18	Regional route marking systems to encourage underutilized capacity	Encourage travel on local roads and arterials by better route marking to show alternatives.	Yes		Caltrans, Counties, Cities
5.19	Congestion management field team to clear incidents	Self-explanatory.	Yes		CTCs, CHP

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.20	Use dynamic message signs to direct/smooth speeds during incidents	Self-explanatory.	Yes		Caltrans
5.21	Get real-time traffic information to trucking centers and rental car agencies	Reduce travel in congested areas by providing information directly to high volume travelers.	Yes		CTCs, Caltrans
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 reductions is contemplated under this statute. This measure is not feasible until the statute is changed.	
5.23	Require 40 mph speed limit on all facilities	Depends on area's emission factors.	No	The California Vehicle Code Sections 22357 and 22358 mandates a methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	

Section 108 (f) 5. Traffic Flow Improvement Programs That Achieve Emissions Reductions					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
5.24	Require lower speeds during peak periods	Self-explanatory.	No	The California Vehicle Code Sections 22357 and 22358 mandates methodology for setting speed limits for local areas. This measure is not feasible until the statute is changed.	
5.25	On-street parking restrictions	Restrict on-street parking where appropriate.	Yes		State, Counties, and Cities
5.26	**Roundabouts at low traffic intersections**	**Construct roundabouts and remove stop signs as appropriate**	**Yes**		**Counties, Cities**
5.27	**Eco-Driving educational program**	**Education program to improve vehicle efficiency by improving driving habits**	**No**	**No clear demonstration of emission reduction benefits.**	

Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
6.1	Park-and-ride lots	Develop, design, and implement new park-and-ride facilities in locations where they are needed, particularly free parking near transit facilities.	Yes		Caltrans, CTCs, Transit Operators, SCRRA

Section 108 (f) 6. Fringe and Transportation Corridor Parking Facilities Serving Multiple Occupancy Vehicle Programs or Transit Service					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
6.2	Park-and-ride lots serving perimeter counties	Specific to a locality.	Yes		Caltrans, CTCs, Transit Operators, SCRRA

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.1	Off-peak goods movement	Restrict truck deliveries by time or place in order to minimize traffic congestion during peak periods.	Yes		PierPass (A non-profit organization of marine terminal operators at the Ports of Los Angeles and Long Beach)
7.2	Truck restrictions during peak periods	Restrict truck travel during peak periods in order to minimize traffic congestion.	Yes		See Measure 7.1
7.3	Involve school districts in encouraging walking/bicycling to school	Decrease vehicle emissions associated with school trips by reducing these trips through education and out-reach programs.	Yes		School Districts

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
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 feasible.	
7.5	Area-wide tax for parking	Reduce driving by limiting parking through implementation of pricing measures.	Yes		Counties, Cities
7.6	Increase parking fees	Reduce driving by limiting parking spaces through pricing measures.	No	Attorney General ruled South Coast AQMD lacks authority to implement this measure.	
7.7	Graduated pricing starting with highest in Central Business District (CBD)	Increase parking charge in the CBD or other high volume areas in a city to discourage vehicle travel in these areas.	Yes		Market Driven
7.8	Purchase parking lots and convert into other land uses	Limit parking by converting available parking to other land uses to discourage driving.	Yes		Counties and Cities

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
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.	
7.10	No CBD vehicles unless LEV, alternative 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 of the SOUTH COAST AQMD to implement indirect source control measures through revisions to the Health & Safety Code (40717.6, 40717.8, and 40717.9).	
7.11	Auto restricted zones	No vehicles allowed in certain areas where high emissions, congestion or contribution to ozone problems.	Yes		Counties and Cities
7.12	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties and Cities
7.13	Land use/air quality guidelines	Guidelines for developments that contribute to achieving air quality goals.	Yes		CARB, SOUTH COAST AQMD,SCAG

Section 108 (f) 7. Programs to Limit or Restrict Vehicle Use in Downtown Areas or Other Areas of Emission Concentration Particularly During Periods of Peak Use					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
7.14	Cash incentives to foster jobs/housing balance	Specific to locality – encouraged by California Clean Air Plan.	No	Has never been a committed TCM. No dedicated source of funding for this measure.	
7.15	Trip reduction oriented development	Land use decisions that encourage trip reductions.	Yes		Counties, Cities, CTCs
7.16	Transit oriented development	Land use decisions that encourage walkable communities and multi-modal transit systems.	Yes		Counties, Cities, CTCs
7.17	Sustainable development	Land use decisions that create equitable standards of living to satisfy the basic needs of all peoples, all while taking the steps to avoid further environmental degradation.	Yes		Counties, Cities, CTCs
7.18	Smart Parking Detection System	Utilize mobile communication devices to access the parking availability at multiple lots and provide real-time inventory of parking spaces.	Yes		Cities
7.19	**Programs to encourage goods movement by rail**	**Self-explanatory**	**Yes**		**CARB**
7.20	**Divert Trucks from Nonattainment Areas**	**Require pass-through trucks to choose routes away from the SCAG region**	**No**	**No authority to implement; Not feasible because whole South Coast region is nonattainment area under one or more NAAQS.**	
7.21	**Buy parking lots and convert to other land use**	**Limit parking by converting available parking to other land uses to discourage driving**	**Yes**		**Counties, Cities**

Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
8.1*	Financial Incentives, Including Zero-Bus Fares	Provide financial incentives or other benefits, such as free or subsidized bus passes and cash payments for not driving, in lieu of parking spaces for employees who do not drive to the workplace.	Yes		SOUTH COAST AQMDSOUTH COAST AQMD, Employer
8.2	Internet ride matching services	Provide match-lists, route info, hours and contact information over the internet to assist individuals in joining or developing carpools.	Yes		CTCs, Employer
8.3*					
8.4*	Credits and incentives for carpoolers	Self-explanatory – form depends on locality.	Yes		SOUTH COAST AQMD, Employer
8.5*	Employers provide vehicles to carpoolers for running errands or emergencies	Having vehicles available for workday errands makes it easier to go to work without one.	Yes		SOUTH COAST AQMD, Employer
8.6	Subscription services	Free van services to provide transportation for the elderly, handicapped or other individuals who have no access to transportation.	Yes		County, CTCs, Employer
8.7	School carpools	Self-explanatory and voluntary.	Yes		School Parents

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Section 108 (f) 8. Programs For the Provision of All Forms of High-Occupancy, Shared-Ride Services					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
8.8*	Guaranteed ride home	Self-explanatory.	Yes		CTCs, SOUTH COAST AQMD, Employer
8.9	Transit Voucher Program	Transit vouchers for elderly and low income commuters.	Yes		CTCs, Cities, Counties
8.10	Rideshare and vanpool services	Non-employer based rideshare and vanpool option near transit stations.	Yes		CTCs, Transit Agencies, Cities and Counties

Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.1	Establish Auto-Free Zones and pedestrian malls	Establish auto free zones and pedestrian malls where appropriate.	Yes		Counties and Cities

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Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.2	Encouragement of pedestrian travel	This measure involves encouraging the use of pedestrian travel as an alternative to automobile travel. Pedestrian travel is quite feasible for short shopping, business, or school trips.	Yes		CTCs, Counties, Cities, SCAG
9.3	Bicycle/Pedestrian Program	Fund high priority projects in countywide plans consistent with funding availability.	Yes		CTCs, Counties, and Cities
9.4	Close certain roads for use by non-motorized traffic	During special events, weekends, or certain times of the day, close some roads to all but non-motorized traffic.	Yes		Counties, and Cities
9.5	Encourage bicycle travel	Promotion of bicycle travel to reduce automobile use and improve air quality. Bikeway system planning, routes for inter-city bike trips to help bicyclists avoid other, less safe facilities. Another area for potential actions is the development and distribution of educational materials, regarding bicycle use and safety.	Yes		SCAG, CTCs, Counties, Cities, and Employer
9.6	Free bicycles	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; Evidence suggests that bicycle theft is a problem in other programs and renders the measure technologically and economically infeasible.	

Section 108 (f) 9. Programs to Limit Portions of Road Surfaces or Certain Sections of the Metropolitan Area to the Use of Non-Motorized Vehicles or Pedestrian Use, Both as to Time and Place					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
9.7*	Cash rebates for bikes	Provide financial incentives to purchase bicycles and thereby encourage use.	Yes		Employer
9.8	Close streets for special events for bikes and pedestrians	Self-explanatory.	Yes		Counties and Cities
9.9	Use condemned dirt roads for bike trails	Self-explanatory.	No	Not applicable because there are no condemned dirt roads in the region.	
9.10	**Safe Routes to School programs**	**Encourage educational and encouragement programs with families and schools and support policies to improve pedestrian and bicycle safety.**	**Yes**		**State, Counties, CTCs, and Cities**

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Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
10.1*	Bike racks at work sites	Self-explanatory.	Yes		SOUTH COAST AQMD, Employer
10.2	Bike racks on buses	Bike racks would be placed on a to-be-determined number of buses to increase bicycle travel.	Yes		CTCs, Transit Operators, SCRRA
10.3	Regional bicycle parking	Bike Transit Centers	Yes		CTCs
10.4	Develop bicycle travel facilities	Encourages a variety of capital improvements to increase bicycle use. Off-street bikeways where high-speed roadways preclude safe bicycling. Clearly mark travel facilities with signs and provide adequate maintenance.	Yes		CTCs, Transit Operators, SCRRA
10.5	Expedite bicycle projects from RTP/SCS	Create bicycle and pedestrian master plan and build out at an accelerated rate to achieve benefits in advance of attainment deadline.	Yes		SCAG, CTCs, Counties, Cities
10.6	Provide bike/pedestrian facilities safety patrols	Self-explanatory.	Yes		Counties and Cities
10.7	Inclusion of bicycle lanes on thoroughfare projects	Self-explanatory.	Yes		State, CTCs, Counties, and Cities

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Section 108 (f) 10. Programs for Secure Bicycle Storage Facilities and Other Facilities, Including Bicycle Lanes, for the Convenience and Protection of Bicyclists, in Both Public and Private Areas					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
10.8	Bicycle lanes on arterial and frontage roads	Self-explanatory.	Yes		State, Counties, and Cities
10.9	Bicycle route lighting	Self-explanatory.	Yes		State, Counties, Cities
10.10	Complete Streets	Install bicycle and pedestrian facilities, upgrade traffic control systems, urban design improvements, street lights and transit connections.	Yes		Cities, Counties, CTCs, Transit Agencies
10.11	Bike Share	Provide bike-share and neighborhood electric vehicle transit services in downtown areas.	Yes		Cities, Counties, Transit Agencies
10.12	Bike Purchase Incentives	Cash incentives to transit riders to purchase collapsible or electric bikes.	Yes		Cities
10.13	Longer Bike Racks on Buses	Install or modify bike rack on transit buses to accommodate up to three bikes	Yes		Transit Agencies
10.14	Greenway Network	Use riverbeds and other rights-of-way for bike and pedestrian paths to separate them from auto traffic	Yes		Cities, Counties
10.15	First Mile/Last Mile Program	Variety of strategies to encourage active transportation including wayfinding, sidewalk improvements, pedestrian priority signalization, and bike/pedestrian facilities near transit.	Yes		CTCs, Transit Agencies

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
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 started much less frequently. For this reason it was determined not to be technologically feasible. No clear demonstration of emission reduction benefits.	
11.2	Encourage limitations on vehicle idling	Encourage limitations to limit extended idling operations.	Yes		CARB
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.	
11.4	Outlaw idling in parking lots	Self-explanatory and police-enforced program.	No	Enforcement of idle restrictions is a low priority for police relative to their other missions. The cost effectiveness of this measure has not been demonstrated. It is not economically feasible. No clear demonstration of emission reduction benefits.	
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.	

Section 108 (f) 11. Programs to Control Extended Idling of Vehicles					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
11.6	Promote use of pony engines	Use special battery engines to keep air conditioning and other truck systems working while truck not in use.	Yes		CARB
11.7	Idle restrictions at airport curbsides	Self-explanatory and police-enforced.	Yes		Airport Authority
11.8	Truck Stop Electrification	Provide electric charging stations for at truck stops to power heating/AC units and other on-board equipment.	Yes		CARB
11.9	**Reduce idling at schools**	**Self-explanatory**	**Yes**		**CARB**

Section 108 (f) 12. Program to Reduce Motor Vehicle Emissions Consistent with Title II, Which Are Caused by Extreme Cold Start Conditions	
Not applicable. The definition of an "extreme cold start" specifies temperatures below 20 degrees Fahrenheit.	Not applicable in the South Coast - No extreme cold start conditions

Section 108 (f) 13. Employer-sponsored programs to permit flexible work schedules					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
13.1*	Alternative work schedules	Enables workers to choose their own working hours within certain constraints. Flextime provides the opportunity for employees to use public transit, ridesharing, and other Nonmotorized transportation. A related strategy, staggered work hours, is designed to reduce congestion in the vicinity of the workplace. Alternative workweeks have been implemented extensively by large private and public employers.	Yes		SOUTH COAST AQMD, Employer
13.2*	Modifications of work schedules	Implement alternate work schedules that flex the scheduled shift time for employees. Encourage the use of flexible or staggered work hours to promote off-peak driving and accommodate the use of transit and carpooling.	Yes		SOUTH COAST AQMD, Employer
13.3*	Telecommunications-Telecommuting/Teleconferencing	Encourage telecommuting and use of telecommuting/teleconferencing equipment in place of motor vehicle use where appropriate. Set-up satellite work centers closer to where employees live to reduce motor vehicle use where appropriate.	Yes		SOUTH COAST AQMD, Employer

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Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
14.1	Areawide public awareness programs	This measure focuses on conducting ongoing public awareness programs throughout the year to provide the public with information on air pollution and encourage changes in driving behavior and transportation mode use.	Yes		SOUTH COAST AQMD
14.2	Special event controls	This measure would require new and existing owners/operators of the special event centers to reduce mobile source emissions generated by their events. A list of optional strategies would be available that reduce mobile source emissions.	Yes		Counties, Cities, Special Event Operators
14.3	Land Use/development alternatives	This measure includes encouraging land use patterns, which support public transit and other alternative modes of transportation. In general, this measure would also encourage land use patterns designed to reduce travel distances between related land uses	Yes		CARB, SCAG, SOUTH COAST AQMD, Counties, Cities
14.4	Voluntary No-Drive Day Programs	Conduct voluntary No-Drive Day Programs during the ozone season through media and employer based public awareness activities.	Yes		CTCs
14.5**	New Development Air Quality Impact Evaluation	Evaluate air quality impacts of new development and recommend or require mitigation for significant adverse impacts.	Yes		SOUTH COAST AQMD, Counties, Cities, CEQA Lead Agencies

** SOUTH COAST AQMD *and SCAG recommend mitigation as commenting agencies on new development projects; cities and counties require mitigation under their discretionary authority as lead agency.*

Section 108 (f) 14. Programs and Ordinances to facilitate Non-automotive travel, provision to and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
14.6	Transportation for Livable Communities (TLC)/Housing Incentive program	Program provides planning grants, technical assistance, and capital grants to help cities and Nonprofit agencies define and implement transportation projects that support community plans including increased housing near transit.	Yes		SCAG, State
14.7	Incentives to increase density around transit centers	Lower travel by increasing residential and commercial density in areas near transit.	Yes		Counties, Cities, CTCs
14.8	Incentives for cities with good development practices	Provide financial or other incentives to local cities that practice air quality-sensitive development.	Yes		CTCs, Counties, Cities
14.9	Increase State gas tax	Self-explanatory.	No	Need State legislation. State gas tax has been increased by SB 1.	
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.	

Section 108 (f) 15. Programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other Non-motorized means of transportation when commercially feasible and in the public interest					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
15.1[13]	Encourage Pedestrian Travel	Promote public awareness and use of walking as an alternative to the motor vehicle.	Yes		SOUTH COAST AQMD, SCAG, CTCs, Counties, Cities, Employer
15.2	Pedestrian and bicycle overpasses where safety dictates	Ongoing implementation as development occurs.	Yes		Counties, Cities

[13] *This measure relates to SOUTH COAST AQMD Rule 2202, On-Road Motor Vehicle Mitigation Options. Administered by SOUTH COAST AQMD, Rule 2202 provides a menu of options for employers in choosing how they will comply. Individual employers implement the mitigation option(s) that they have chosen. Note: Rule 2202 is subject to change through the South Coast AQMD rule amendment process.*

Section 108 (f) 16. Program to encourage the voluntary removal from use and the marketplace of pre-1980 model year light duty vehicles and pre-1980 model light duty trucks					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
16.1	Counties assess ten dollar license plate fee to fund repair/replacement program for high-emitters	Self-explanatory.	Yes		CARB, BAR[14]
16.2	Offer incentives for retirement and replacement of vehicles for participants meeting specific requirements	Self-explanatory.	Yes		CARB, SOUTH COAST AQMD[15]
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.	
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	
16.5	Accelerated retirement program	Identify high-emitting vehicle age groups and develop a program to remove them from use.	Yes		CARB, SOUTH COAST AQMD

[14] *Similar program administered with different funding source as part of smog check*

[15] *Voluntary car scrapping programs to generate credits. Note: South Coast AQMD rules are subject to change through an amendment process.*

17. Other					
Measure #	**Measure Title**	**Description**	**Has It Been Implemented**	**Reasoned Justification for Not Implementing Measure**	**Implementing Agency or Agencies**
17.1	Truck-Only Lanes	Self-explanatory.	Yes		Caltrans, CTCs
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	
17.3	Clean Fleet Vehicles for Government Employees	Provide alternative fuel vehicles for government employees.	Yes		CARB, SOUTH COAST AQMD, Counties, Cities