



DIRECTIONS 2045

LONG RANGE TRANSPORTATION PLAN

Sustainable, Equitable, and Innovative Transportation Solutions



EXECUTIVE SUMMARY

Final Draft – May 2023

EXECUTIVE SUMMARY

This Long-Range Transportation Plan (LRTP) looks out to the year 2045 to identify strategies that we can begin developing today to meet Orange County’s transportation challenges anticipated for tomorrow. These strategies chart the path that will improve mobility, protect transportation resources, and enhance the quality of life for all Orange County travelers.

The Orange County Transportation Authority (OCTA) prepares an LRTP every four years to provide a system-level vision for Orange County. The LRTP is also used to provide input into the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) prepared by the Southern California Association of Governments (SCAG). Similar to the LRTP, SCAG’s RTP/SCS provides a system-level vision but at a larger scale, covering the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Projects must be included in an approved RTP/SCS to be programmed for state and federal funding through the Federal Transportation Improvement Program (FTIP) and to receive project-level approvals. This is a continuous planning process as shown in Figure 1-1.

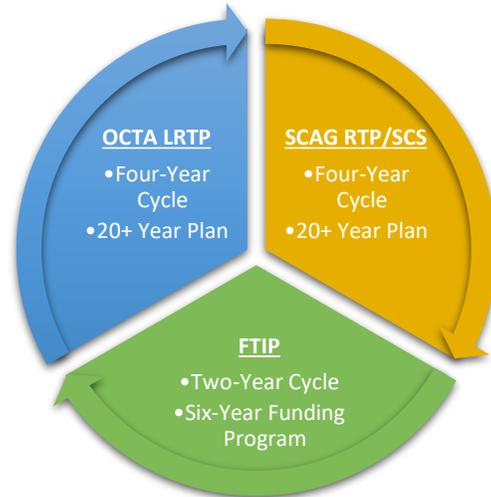
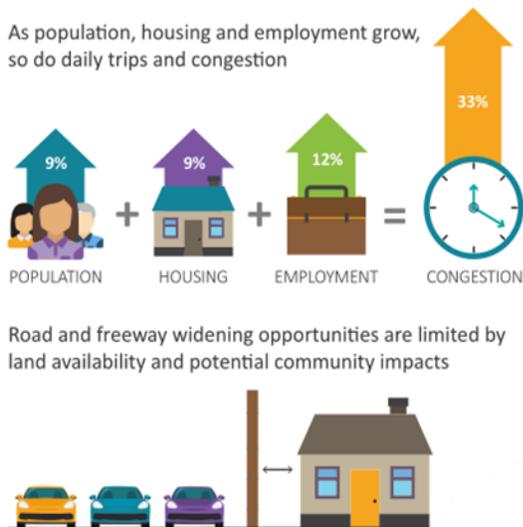


Figure 1: Continuous Planning Process

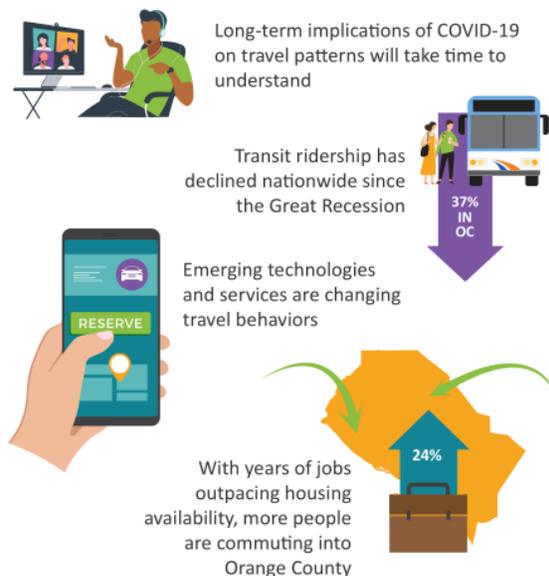
Planning for 2045

Many factors affect how people travel and how to plan for reliable mobility. Five key factors were identified as being particularly influential in this LRTP.

1. Growing Travel Demand and a Built-Out Roadway System



2. Evolving Travel Trends



EXECUTIVE SUMMARY

3. Increasing Climate-Related Risks



Orange County residents and infrastructure are impacted by high heat, wildfires, drought, coastal flooding and inland flooding

State and regional plans and policies include strategies to meet ambitious greenhouse gas emissions reduction goals



TRANSPORTATION EMISSIONS

**80%
BY 2050**

4. Changing Funding Outlook



Orange County's local transportation sales tax is set to end in 2041

The state is leveraging its more than \$5 billion transportation budget to reduce greenhouse gas emissions and address inequities in transportation



5. Diversity, Equity, and Inclusion



Nationwide, disadvantaged populations have historically been disproportionately burdened by transportation inequities that have limited access to opportunities

Policies and practices need to be considered to make transportation options more equitable for all

Goals for 2045

While new challenges have emerged over the years, the goals of the LRTP remain steady, thereby allowing plans, programs, and projects to stay on course.



Goal 1: Deliver on Commitments

Prioritize the voter-approved OC Go programs and fulfill OCTA's responsibility for providing safe and reliable transit service.



Goal 2: Improve System Performance

Improve overall travel conditions with conventional and innovative solutions that respond to Orange County's growing travel demand.



Goal 3: Expand System Choices

Provide travelers with convenient and equitable travel options and reduce the number of single occupant vehicle (SOV) trips.



Goal 4: Support Sustainability

Include adaptation and resiliency strategies that reduce climate-related risks, while also supporting Orange County's economy, infrastructure maintenance, and environmental health.

EXECUTIVE SUMMARY

2045 Preferred Plan

The 2045 Preferred Plan provides a long-term vision for Orange County’s transportation system that supports the LRTP goals. This vision prioritizes programs funded by the Measure M2 half-cent sales tax, also known as OC Go, the OC Go program of projects, but also includes seven strategy sets, referred to as the Paths to Success.

Deliver OC Go Programs

In 2006, nearly 70 percent of voters approved the OC Got sales tax, to improve transportation in Orange County. Collection of the OC Go sales tax began in 2011 and will continue through 2041 to support the following OC Go programs:

EXECUTIVE SUMMARY

Freeway Projects



Implement 17 remaining projects to relieve congestion and improve safety

Motorist Services



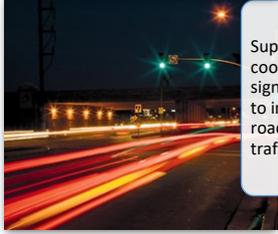
Assists motorists and removes congestion-causing debris

Street Improvements



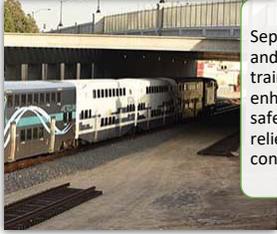
Over \$1 billion invested so far to support local street improvement projects

Signal Synchronization



Supports coordinated signal timing to improve roadway traffic flow

Bridges & Underpasses



Separates cars and freight trains to enhance safety and relieve congestion

Metrolink Station Improvements



Expands service, enhances the experience, and improves safety

OC Streetcar



Construction is underway with service to begin in 2024

Transit Access



Reduced fares and specialized services for seniors and persons with disabilities

Local Transit



Supports locally operated services to enhance community level mobility

Safe Transit Stops



Projects to improve the 100 busiest transit stops

Freeway Mitigation



1300 acres acquired and preserved as open space

Environmental Cleanup



Removes pollutants from roads before they reach waterways

The Paths to Success

The Paths to Success, outlined below, identify seven sets of transportation strategies that are proposed in addition to delivering the OC Go program. These paths look beyond the 2041 sunset of OC Go to achieve the LRTP goals by responding to the five key factors, discussed above, and public engagement feedback.



Extend or Modify Programs Funded by OC Go

Fund popular and effective programs beyond 2041

Signal synchronization | Roadway improvements | Community circulators | Metrolink service | Transit accessibility | Senior mobility | Environmental mitigation



Expand Transit Services

Provide more service tailored to local needs

Rapid bus (BRAVO!) | Microtransit (OC Flex/SC Rides) | High-capacity transit | Reduced or free transit fares



Enhance Active Transportation

Provide safe and attractive facilities through coordination with local jurisdictions

Coordinate regional routes | Support local routes | Reallocation of excess roadway space



Explore Mobility Integration

Improve access to more options and overcome first-and last-mile challenges

Mobility hubs | Mobility as a Service | Micromobility



Eliminate Freeway Chokepoints

Enhance safety and reduce driving delays within existing right-of-way (ROW)

Auxiliary lanes | Braided ramps | Address lane drops | System management



Embrace Technology

Leverage technology to provide more options and improve efficiency

Electric vehicle (EV) charging | Remote work/Teleservices | E-bicycles/neighborhood EVs | Connected Vehicles | Enhanced signal Synchronization | Monitor emerging technology



Elevate Maintenance and Resilience Priorities

Protect travelers and preserve transportation investments

Maintain existing infrastructure | Assess risks and mitigations | Electric bus fleet by 2040

Achieving the Goals

The Preferred Plan combines the benefits from OC Go and the Paths to Success to achieve the LRTP goals. The findings below compare the 2045 Preferred Plan to the 2045 No-Build scenario, which considers how the 2019 transportation system would perform with the 2045 socioeconomic conditions forecasted in Orange County Projections (OCP)-2018. This analysis is used to determine if the projects and programs

EXECUTIVE SUMMARY

proposed in the 2045 Preferred Plan are supporting the LRTP goals. Note that the 2045 No-Build and 2045 Preferred Plan both assume that, by 2045, the California Department of Transportation (Caltrans) will have converted all freeway carpool lanes to tolled express lanes that require vehicles with fewer than three persons to pay a fee to access the lane(s).

Goal 1: Deliver on Commitments

The cornerstone of the LRTP is the delivery of the voter-approved OC Go programs and fulfilling OCTA’s responsibility for delivering safe and reliable transit service. Therefore, this goal is achieved by prioritizing the voter-approved OC Go programs and safe and reliable transit service in the 2045 Preferred Plan.

Goal 2: Improve System Performance

The Preferred Plan successfully addresses system performance by improving travel time reliability and reducing the time spent in congestion by 30 percent. This provides for faster and safer travel for all forms of transportation on our roads and freeways.

| Performance Metrics – Improve System Performance | | | | |
|--|---------------|---------------|---------------------|---|
| Performance Measure | Unit | 2045 No-Build | 2045 Preferred Plan | % Change (2045 Preferred - 2045 No-Build) |
| Daily Vehicle Hours of Delay | Vehicle-Hours | 454,000 | 316,000 | -30% |
| Delay as Percent of Travel Time | Percent | 18% | 14% | -- |
| Freeway Average Speed | | | | |
| Peak Period | | | | |
| AM Peak | Miles/Hour | 40 | 42 | 5% |
| PM Peak | | 38 | 40 | 5% |
| PM Peak | | 41 | 43 | 5% |
| Arterial Average Speed | | | | |
| Peak Period | | | | |
| AM Peak | Miles/Hour | 25 | 27 | 8% |
| PM Peak | | 25 | 26 | 4% |
| PM Peak | | 26 | 27 | 4% |
| Managed Lane Average Speed | | | | |
| Peak Period | Miles/Hour | 49 | 61 | 24% |
| Average Travel Time | | | | |
| Transit | Minutes | 63 | 60 | -5% |
| Automobile | | 14 | 14 | 0% |

EXECUTIVE SUMMARY

Goal 3: Expand System Choices

By investing in transit, active transportation, and mobility integration, the Preferred Plan provides a combination of services that effectively expand system choices and reduce the number of drive-alone trips, resulting in a 12 percent increase in non-single occupant vehicle (non-SOV) trips.

| Performance Metrics – Expand System Choices | | | | |
|---|--------------|-----------------|-------------------------------|---|
| Performance Measure | Units | 2045 No-Build | 2045 Preferred Plan | % Change (2045 Preferred - 2045 No-Build) |
| Total Number of Daily Trips | Person-Trips | 17,600,000 | 17,700,000 | 0% |
| Daily Transit Trips | Person-Trips | 138,000 | 185,000 | 34% |
| Non-SOV Mode Share | Percent | 51% | 57% | -- |
| Average Bus Headways | Minutes | 36.8 | 35.2 | -- |
| Revenue Service Hours (All Transit) | Hours | 1,651,000 | 2,061,000 | 25% |
| Revenue Service Hours (Frequent Transit Service ¹) | Hours | 74,000 | 688,000 | 828% |
| Households with Access to High-Capacity Transit Stops | Households | 73,000 | 259,000 | 254% |
| Microtransit Service Area | Square Miles | 7 | 112 | 1,437% |
| Multimodal/Rideshare Facilities | Facilities | 28 | 67 | -- |
| Bikeways (Class, I, II, III, IV) | Miles | 1,238 | 2,045 | 65% |
| Jobs Accessible: | | | | |
| By Transit within 30 minutes | Jobs | 71,000 | 79,000 | 11% |
| By Automobile within 30 minutes | | 1,366,000 | 1,640,000 | 20% |
| Key Destinations Accessible: | | | | |
| By Transit within 30 minutes | Destinations | 70 | 80 | 8% |
| By Automobile within 30 minutes | | 1,200 | 1,420 | 19% |
| Average Household Spending on Transportation as a Percent of Income | Percent | -- ² | ↓2% vs. No-Build ² | -- |

Notes:

¹ Includes OC Streetcar

² Future household income information unavailable; assumed to be constant for 2045 No-Build and 2045 Preferred.

Goal 4: Support Sustainability

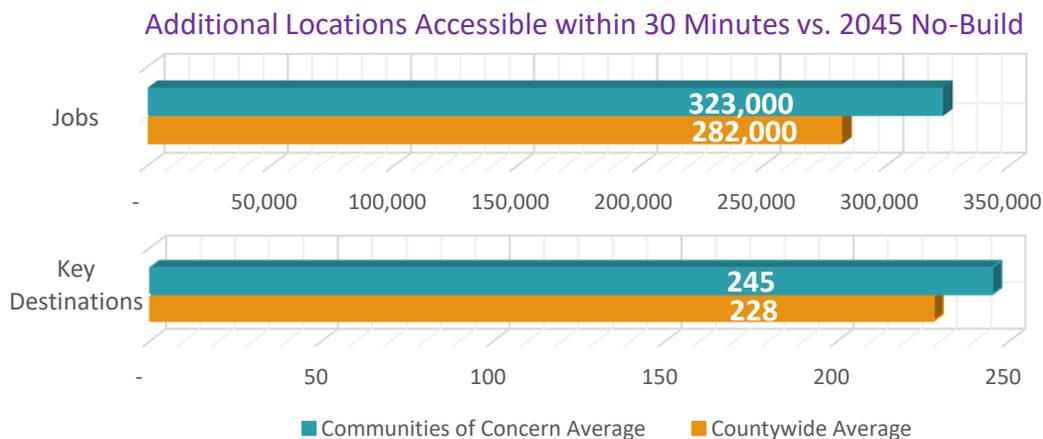
Although the Preferred Plan includes roadway and freeway improvements that are generally thought to increase how much people drive, vehicle miles traveled (VMT) only increased by less than one percent. With more people choosing travel modes other than driving, and by allowing vehicles to travel at more efficient speeds, greenhouse gas and smog forming emissions are reduced, which supports a more sustainable system. Additionally, by elevating maintenance and resiliency priorities, the Preferred Plan provides for improved pavement conditions on Orange County roadways.

EXECUTIVE SUMMARY

| Performance Metrics – Support Sustainability | | | |
|--|---------------|---------------------|---|
| Performance Measure | 2045 No-Build | 2045 Preferred Plan | % Change (2045 Preferred - 2045 No-Build) |
| Vehicle Miles Traveled per Capita | 23.2 | 23.2 | -- |
| Greenhouse Gas Emissions (CO ₂ e lbs/day) from vehicles | 41,500,000 | 40,400,000 | -3% |
| Criteria Pollutant Emissions (lbs/day) from vehicles | | | |
| Reactive Organic Gases (ROG) | 1,200 | 1,100 | -8% |
| Nitrogen Oxides (NO _x) | 4,200 | 4,000 | -3% |
| Carbon Monoxide (CO) | 98,100 | 94,900 | -3% |
| Sulfur Oxides (SO _x) | 400 | 400 | 0% |
| Particulate Matter – 10 micrometers (PM ₁₀) | 3,810 | 3,870 | 2% |
| Particulate Matter – 2.5 micrometers (PM _{2.5}) | 1,240 | 1,260 | 1% |
| Arterial Pavement Condition Index weighted average | 79.9 | 82.4 | -- |
| Jobs Created or Supported by Transportation Investment | -- | 745,000 | -- |

Equitable Access Analysis

In addition to reporting on the specific LRTP goals, equity was also analyzed by assessing access to jobs and key destinations that serve essential needs. The results were compared between the County as a whole and the Communities of Concern within Orange County. Access for Orange County households showed an improvement over the 2045 No-Build conditions. However, accessibility improved even more within the communities of concern. The results show access to jobs and key destinations increases by approximately 15 percent and 7 percent more than the county average, respectively. OCTA’s future planning efforts will focus on maintaining this positive trend.



EXECUTIVE SUMMARY

Project List

Below is a detailed listing of the projects and programs included in the 2045 Preferred Plan.

| Table 4.6: 2045 Preferred Plan | |
|---|--|
| Project | Description |
| Local Facilities | |
| Master Plan of Arterial Highways (MPAH) | Coordinate with local jurisdictions to implement the MPAH |
| Regional Traffic Signal Synchronization Program | Coordinate with local jurisdictions to maintain and expand the Orange County signal synchronization network |
| Enhanced signal synchronization and integration with connected vehicles | Incorporate technologies in the signal synchronization network that further improve the efficiency and safety of roadways |
| Pavement Maintenance | Coordinate with local jurisdictions to maintain or improve pavement quality on Orange County roads |
| Local Fair Share Program | Continue to provide funding to qualifying local jurisdictions to support transportation improvements that address local needs |
| Active Transportation Network | Coordinate with local jurisdictions to implement and enhance regional and local bicycle and pedestrian networks |
| State Facilities | |
| I-5: SR-55 to SR-57 (Project A, Complete) | Add one managed lane in each direction |
| I-5: I-405 to SR-55 (Project B) | Add one general purpose lane in each direction from I-405 to Yale Avenue; add one general purpose lane in each direction from Yale Avenue to SR-55; improve merging |
| I-5: SR-73 to Oso Parkway (Projects C and D) | Add one general purpose lane in each direction, plus auxiliary lanes as needed and improve Avery Parkway interchange |
| I-5: Oso Parkway to Alicia Parkway (Projects C and D) | Add one general purpose lane in each direction, plus auxiliary lanes as needed and improve La Paz Road interchange |
| I-5: Alicia Parkway to El Toro Road (Project C) | Add one managed lane in each direction; add auxiliary lanes as needed |
| I-5: El Toro Road (Project D) | Improve access and merging in the vicinity of I-5/El Toro Road interchange |
| I-5: Avenida Pico to San Diego County Line | Add one managed lane in each direction |
| I-5: Barranca Parkway | Add southbound managed lane on-ramp and northbound managed lane off-ramp |
| I-5: SR-57 to SR-91 | Add one managed lane in each direction |
| SR-22: at I-5/SR-57 (Complete) | Improve operations and merging in vicinity of I-5/SR-57 interchange |
| SR-55: I-405 to I-5 (Project F) | Add one general purpose lane and one managed lane in each direction and fix chokepoints; add auxiliary lanes between select on/off ramps and other operational improvements through project limits |
| SR-55: I-5 to SR-91 (Project F) | Add one general purpose lane in each direction and fix chokepoints from I-5 to SR-22; and other operational improvements throughout project limits |
| SR-57: Orangewood Avenue to Katella Avenue (Project G) | Add one northbound general purpose lane |
| SR-57: Lambert Road | Improve SR-57/Lambert Road interchange |

EXECUTIVE SUMMARY

| Table 4.6: 2045 Preferred Plan | |
|---|---|
| Project | Description |
| SR-57: Lambert Road to Los Angeles County Line (Project G) | Add one northbound truck climbing lane |
| SR-73: I-405 to MacArthur Boulevard | Add one managed lane in each direction |
| SR-73: SR-133 to Newport Coast Drive | Add one toll lane in each direction |
| SR-91: SR-57 to SR-55 (Project I) | Improve westbound operations from Lakeview Avenue to SR-55; add one eastbound general-purpose lane from La Palma Avenue to SR-55; add one westbound general-purpose lane from La Palma Avenue to Acacia Street. |
| SR-91: SR-241 to SR-71 (Project J) | Add one eastbound general-purpose lane; Add one westbound general-purpose lane from Green River Road to SR-241 (Westbound Lane Complete) |
| SR-91: Fairmont Boulevard | Add SR-91/Fairmont Boulevard interchange and overcrossing to the north |
| SR-91: at SR-241 | Add Express Lane Connector at SR-91/SR-241 |
| SR-91 Express Lanes operations & maintenance | Operations & maintenance expenses for the 91 Express Lanes |
| SR-241: Oso Parkway to Los Patrones Parkway (Complete) | Add overcrossing and SR-241/Oso Parkway/Los Patrones Parkway interchange |
| SR-241: SR-133 to north of SR-261 | Add one toll lane in each direction |
| I-405: SR-73 to I-605 (Project K) | Add one express lane in each direction and convert the existing managed lane to an express lane from SR-73 to I-605; Add one general purpose lane in each direction from Euclid Street to I-605; improve operations |
| I-405 Express Lanes operations & maintenance | Operations & maintenance expenses for the 405 Express Lanes |
| I-405: I-5 to SR-55 (Project L) | Add one general-purpose lane in each direction and add one southbound auxiliary lane from SR-133 to Irvine Center Drive |
| I-405: University Drive to SR-133 (Complete) | Add auxiliary lanes – University Drive to Sand Canyon Avenue and Sand Canyon Avenue to SR-133 |
| I-605: Katella Avenue (Project M) | Improve I-605/Katella Avenue interchange |
| Freeway Chokepoint Safety Projects | Improve safety and supply chain efficiency on Orange County freeways |
| Conversion of carpool lanes to tolled Express Lanes by 2045 (Caltrans initiative) | Modify operations of carpool lanes to allow tolled access for vehicles with fewer than three passengers (vehicles with three or more persons have toll-free access) |
| Freeway Program Economic Uncertainties | Funding reserve to cover unforeseeable cost or revenue fluctuations |
| Motorist Services (Project N) | Freeway Service Patrol: assist motorists and remove congestion-causing debris |
| Transit | |
| OC Streetcar (Project S) | Implement streetcar service from Santa Ana Regional Transportation Center to Harbor Boulevard/Westminster Avenue |
| OC Bus and OC ACCESS | Zero-emission bus fleet by 2040; Increase to 1.926 million revenue vehicle hours of service – includes: <ul style="list-style-type: none"> • Making Better Connections recommendations • Main Street BRAVO! |

EXECUTIVE SUMMARY

| Table 4.6: 2045 Preferred Plan | |
|---|---|
| Project | Description |
| | <ul style="list-style-type: none"> Expanded Main Street BRAVO! Expanded Beach Boulevard BRAVO! Lincoln Avenue/La Palma Avenue BRAVO! Chapman Avenue BRAVO! McFadden Boulevard/Bolsa Avenue BRAVO! Westminster Avenue/17th Street/Bristol Street high-capacity transit Bristol Street/State College Boulevard high-capacity transit South Harbor Boulevard high-capacity transit North Harbor Boulevard high-capacity transit I-5 BRT SR-55 BRT |
| Mobility Accessibility Programs (Project U) | <p>Expand mobility choices for seniors and persons with disabilities:</p> <ul style="list-style-type: none"> Senior Mobility Program Senior Non-Emergency Medical Transportation Program Fare Stabilization Program |
| Community-Based Circulators (Project V) | Work with local jurisdictions to maintain successful community circulator projects and potentially provide grant opportunities for expanded or new services |
| Safe Transit Stops (Project W) | Continue to improve the top 100 busiest transit stops to enhance customer experience |
| Reduced or fare-free transit service | Continue and potentially expand programs to reduce transit fares |
| Transit Security & Operations Center | New operations center for transit and emergency security functions |
| Microtransit service | Expand service (e.g., OC Flex) in suitable areas |
| Metrolink Service | Increase service to 86 weekday trains through coordinated improvements with the Southern California Regional Rail Authority |
| Anaheim Canyon Station improvements (Project R, Complete) | Add a second passenger platform, new amenities, new second track, and improvements to at-grade crossings at La Palma Avenue and Tustin Avenue |
| Placentia Metrolink Station (Project R) | New rail station in the City of Placentia |
| OC Rail Maintenance Facility (Project R) | A new rail maintenance facility that allows for expanded transit services to meet the needs of a growing population and to support employment growth and sustainability objectives |
| Grade Separations | <p>LOSSAN rail corridor bridge and underpass projects at:</p> <ul style="list-style-type: none"> 17th Street State College Boulevard Santa Ana Boulevard Ball Road Grand Avenue Main Street Orangethorpe Avenue |
| Transportation Demand Management (TDM) Strategies | |
| Vanpool & Rideshare Programs | Continue and potentially expand vanpool and rideshare programs |
| Mobility Hubs Network | Coordinate with partners to implement and operate a network of mobility hubs |
| Remote Work Incentive Program | Reduce trips and vehicle miles traveled through an incentive-based program |
| Additional TDM Initiatives | Continue to explore and develop additional TDM strategies |

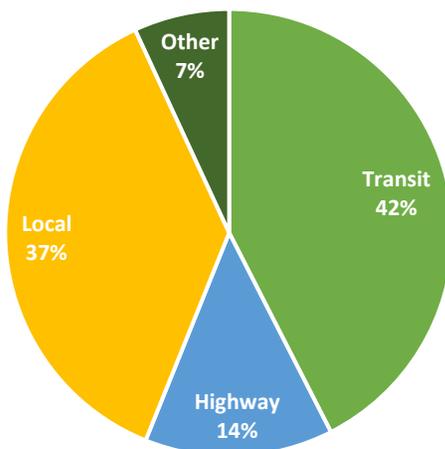
EXECUTIVE SUMMARY

| Table 4.6: 2045 Preferred Plan | |
|-------------------------------------|---|
| Project | Description |
| Other | |
| Environmental Cleanup Program | Transportation-related water quality program (Project X) |
| Environmental Mitigation Program | Environmental mitigation for the OC Go freeway program (Projects A - M) |
| Adaptation & Resiliency Initiatives | Continue to explore and develop adaptation and resiliency initiatives including, but not limited to, addressing concerns with coastal rail infrastructure |
| EV Charging Infrastructure | Coordinate implementation of publicly accessible EV charging stations that accounts for equity and infrastructure needs |
| Debt Service | Payments against bonding |
| Notes: | |
| BRT = Bus Rapid Transit | SR-22 = State Route 22 |
| I-5 = Interstate 5 | SR-55 = State Route 55 |
| I-405 = Interstate 405 | SR-57 = State Route 57 |
| I-605 = Interstate 605 | SR-71 = State Route 71 |
| | SR-73 = State Route 73 |
| | SR-91 = State Route 91 |
| | SR-133 = State Route 133 |
| | SR-241 = State Route 241 |
| | SR-261 = State Route 261 |
| | LOSSAN = Los Angeles – San Diego – San Luis Obispo |

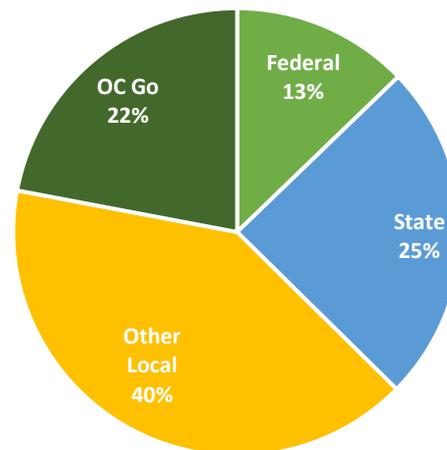
Financial Forecast

Total expenditure to implement the 2045 Preferred Plan is projected to be approximately \$57.3 billion. The forecasted transportation revenues between 2023 and 2045 are estimated at \$52.4 billion. This results in a shortfall of approximately \$4.9 billion. To address this shortfall, the Short-Term Action Plan, outlined in the next section, recommends a strategy be developed to identify funding sources that can offset the 2041 sunset of the OC Go sales tax revenues and meet the long-term funding needs of the 2045 Preferred Plan.

Expenditures by Type
Total (in millions) = \$57,291



L RTP Funding by Source
Total (in millions) = \$52,425



EXECUTIVE SUMMARY

Public & Stakeholder Engagement

A two-phase outreach effort was conducted in fall 2021 and concluded in winter 2023. These efforts are summarized below.



Phase Two focused on gathering feedback on the strategies and findings reported in the LRTP. A summary of Phase Two survey is provided below, which shows that a significant majority of participants either agreed or strongly agreed with all seven statements.

| PHASE TWO SURVEY STATEMENTS | Strongly Agree / Agree | Neutral | Disagree / Strongly Disagree |
|---|------------------------|---------|------------------------------|
| 1. The LRTP should include transportation options that support equitable mobility solutions for all. | 78% | 15% | 7% |
| 2. Orange County would benefit from transportation solutions that provide alternatives to driving alone. | 76% | 16% | 8% |
| 3. Improving the efficiency and safety of roads and freeways is becoming more important as an alternative to major widening projects | 76% | 15% | 9% |
| 4. Orange County’s many diverse communities require a wide variety of transportation options to address local mobility needs. | 78% | 15% | 7% |
| 5. A variety of solutions should be studied to reduce threats like wildfires, flooding, coastal erosion, and extreme heat on transportation infrastructure. | 78% | 13% | 9% |
| 6. It’s important to continue programs that maintain infrastructure, signal synchronization, transit accessibility, senior mobility, Metrolink service, and other programs. | 78% | 14% | 8% |
| 7. Monitoring developing technologies and services to identify opportunities that demonstrate a benefit to the transportation system should be a priority. | 78% | 15% | 7% |

EXECUTIVE SUMMARY

A Living Document

Orange County’s LRTP is updated every four years to adapt to changing conditions and includes a Short-Term Action Plan that advances the LRTP Preferred Plan strategies. Additionally, OCTA maintains a Conceptual Projects listing that identifies projects that require further development before being included in the Preferred Plan.

Short-Term Action Plan

OCTA has identified several short-term activities that are outlined in the table below. These are intended to support the Preferred Plan and development of the next LRTP.

| Short-Term Action Plan | |
|---|--|
| Activity | Description |
| Orange County Planning Activities | |
| Coordination with Local Partner Agencies | Continue the dialogue with local jurisdictions –Caltrans District 12, Transportation Corridor Agencies (TCA), local transit operators, and other local agencies as needed to further intra-county connectivity. |
| Diversity, Equity, and Inclusion | Explore opportunities to improve equity-related analyses in OCTA planning processes. |
| Long-Term Transportation Funding Strategy | Develop and recommend strategies for securing funds for addressing transportation needs beyond the 2041 sunset of the OC Go sales tax. |
| Corridor Studies and Improvements | Conduct studies evaluating the feasibility of multimodal corridor enhancements. |
| OC Transit Vision Update | Update the long-term transit vision for Orange County. |
| Transit Chokepoints Study | Evaluate areas where buses experience acute delay and the source(s) of the cause of delay and make recommendations to improve operating speed and reliability. This could include improvements to routing and scheduling, as well as capital improvements such as transit signal priority. |
| Transit Support Services | Establish a long-term plan for Orange County transit supportive services, such as OC Flex, vanpools, and park-and-rides. |
| OC Metrolink Vision | Develop a long-term Metrolink operations vision for Orange County. |
| Coastal Infrastructure Study | Study sustainable solutions for infrastructure along Orange County’s southern coast. |
| Managed Lane Studies | Coordinate with Caltrans District 12 on the I-5 Managed Lanes Project from Red Hill to the Los Angeles County Line. Explore additional operational enhancements to the high-occupancy vehicle network and potential expansion of priced managed lanes on SR-91 and SR-57. |
| Future of the Toll Roads | Coordinate with Caltrans District 12 and TCA to plan for toll road improvements and operational approaches on the Toll Road corridors related to the State assuming full control of the facilities. |
| Freeway Chokepoints | Study and develop projects to improve freeway safety and system efficiency. |
| Signal Synchronization | Support local initiatives to maintain signal synchronization corridors countywide and study opportunities for integrating advanced technologies. |
| TDM | Study opportunities for new or expanded TDM projects. |

EXECUTIVE SUMMARY

| Short-Term Action Plan | |
|--|---|
| Activity | Description |
| Mobility Hubs | Develop a concept of operations for a future demonstration project to be pursued with public and private partners. |
| Active Transportation Investments | Continue evaluating Orange County’s Active Transportation needs, develop long-term plans, and implement programs that address data collection, data management, and safety education. |
| Complete Streets | Analyze the MPAH for opportunities to reallocate excess capacity in support of active transportation and transit. |
| Sustainable Transportation Strategies | Study potential for a mitigation program designed to offset VMT induced by transportation and land-use projects within Orange County. |
| EV Charging Infrastructure | Develop a strategy for Orange County’s EV charging infrastructure to ensure equitable and affordable access as the EV fleet rapidly grows. |
| Joint Development Studies | Evaluate opportunities for joint developments at OCTA transit terminals to improve transit facilities and connectivity with employment/housing. |
| Asset Management | Monitor maintenance needs for existing and new facilities and equipment. Update fleet plans to address zero-emission bus requirements. |
| Adaptation Planning | Study infrastructure needs and develop recommendations. |
| Traffic Model Update | Update the Orange County Traffic Analysis Model to incorporate the latest socioeconomic data. |
| Regional Planning Activities | |
| Coordination with Regional Partner Agencies | Continue the dialogue with the SCAG, San Diego Association of Governments (SANDAG), County Transportation Commissions, South Coast Air Quality Management District, Caltrans, and other regional agencies as needed to further inter-county connectivity. |
| Trade Corridors/Goods Movement | Coordinate with partner agencies to plan for projected growth in regional goods movement. |
| 2024 RTP/SCS | Participate in the development of the 2024 RTP/SCS and initiate dialogue with SCAG and local jurisdictions. |
| 2028 Olympics | Coordinate with Los Angeles County Metropolitan Transportation Authority (Metro) on preparations for the 2028 Olympics. |
| Metro Countywide Express Lanes Strategic Plan | Continue the dialogue with Metro and appropriate agencies to identify impacts and opportunities for connectivity with Orange County’s transportation network. |
| San Diego’s I-5 High Occupancy Toll Lane Project | Continue the dialogue with SANDAG and appropriate agencies to identify impacts and opportunities for connectivity with Orange County’s transportation network. |
| West Santa Ana Branch/ Pacific Electric ROW | Continue the dialogue with Metro and appropriate agencies to identify impacts and opportunities for connectivity with Orange County’s transportation network. |
| Gold Line Eastern Extension – Phase 2 | Continue the dialogue with Metro and appropriate agencies to identify impacts and opportunities for connectivity with Orange County’s transportation network. |

EXECUTIVE SUMMARY

| Short-Term Action Plan | |
|--|---|
| Activity | Description |
| Emerging Issues | |
| Monitor Technology | Monitor developing technologies and their potential impacts on transportation (e.g., autonomous and connected vehicles, remote work trends, vertiports, and air taxis). |
| Connected Infrastructure Needs Assessment | Study infrastructure needs and identify opportunities to implement and/or complement emerging transportation technologies. |
| State and Federal Regulation | Monitor State and federal legislation/regulations/policies. |
| State and Federal Funding | Identify strategies and opportunities to access and leverage State and federal funding. |
| Transportation Outreach and Education | |
| Diversity, Equity, and Inclusion | Provide all members of the public with equal opportunities to provide input into OCTA planning efforts. |
| Active Transportation Safety | Seek opportunities to enhance public outreach and education related to active transportation safety. |
| Transit Use and Trip Planning | Explore new approaches to increase the use of modes other than single-occupant vehicles, including enhanced transit and active transportation facilities, public education, and incentives. |

Conceptual Project List

Several transportation concepts and projects have been identified in the table below that support the L RTP goals, but require more research, development, funding, and/or public input. Through additional development, they may be considered for inclusion in future Preferred Plan scenarios.

| Conceptual Project List |
|---|
| Local Facility |
| Crown Valley Parkway – I-5 to Greenfield Drive Lane Additions beyond MPAH |
| Cabot Road – Paseo De Colinas to Camino Capistrano Lane Additions beyond MPAH |
| Pedestrian Bridge Improvements in the Anaheim Resort Area |
| Harbor Boulevard – Warner Avenue to 17th Street Lane Additions beyond MPAH |
| Laguna Canyon Road – El Toro Road to Canyon Acres Drive |
| MPAH Complete Streets Assessment – Reuse of Excess Capacity |
| State Facility |
| Ortega Highway – Operational Improvements |
| I-5 – Avenida Pico to Avenida Vaquero Truck Lane |
| Additional Freeway Chokepoint Relief & System Management Projects (TBD) |
| Direct access ramps (TBD) – Managed Lane and High-Capacity Transit Support |
| SR-73, SR-261, SR-241 North – Buildout to Planned Capacity – TCA Project |
| SR-73/Glenwood Drive Intersection Improvement – TCA Project |
| SR-133/Great Park Boulevard Interchange – City of Irvine Project |
| SR-55/Meats Avenue Interchange |
| SR-55 – Extend Managed Lanes to Southern Terminus |

EXECUTIVE SUMMARY

| Conceptual Project List |
|---|
| Transit |
| Enhanced East/West OCTA transit service connecting Anaheim Regional Transportation Intermodal Center mobility hub to areas of high employee and visitor travel demand |
| California High-Speed Rail |
| New Southern OC Metrolink Station |
| Metrolink Expansion (Southern California Regional Rail Authority vision to increase above 86-weekday trains) |
| Other |
| Goods Movement – Supply Chain Resiliency |