



March 2, 2026

To: Regional Transportation Planning Committee
From: Darrell E. Johnson, Chief Executive Officer
Subject: Long-Range Transportation Plan Update

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Overview

The 2026 Long-Range Transportation Plan defines the long-term vision and investment priorities for Orange County’s transportation system through the year 2050. The plan is updated every four years and provides Orange County’s required input to the Southern California Association of Governments’ Regional Transportation Plan and Sustainable Communities Strategy. The plan will include a 2050 Preferred Plan scenario, which represents a recommended set of projects, programs, and strategies intended to advance the Long-Range Transportation Plan goals. This report presents an overview of the draft 2050 Preferred Plan framework and a summary of community engagements to date.

Recommendation

Direct staff to use the draft 2050 Preferred Plan framework for the preparation of the draft 2026 Long-Range Transportation Plan.

Background

The Orange County Transportation Authority (OCTA) is preparing the 2026 Long-Range Transportation Plan (LRTP), which will guide long-term transportation planning and investment priorities through the year 2050. The LRTP is updated every four years and evaluates existing commitments, assesses future travel needs and financial conditions, incorporates public and stakeholder input, and identifies key challenges and strategies needed to support the county’s long-term mobility needs. The 2026 LRTP will serve as Orange County’s required input to the 2028 Regional Transportation Plan/Sustainable Communities Strategy developed by the Southern California Association of Governments.

Key challenges and draft LRTP goals were presented to the OCTA Board of Directors (Board) in September 2025. Each of the four draft goals respond to a set of challenges, which are summarized below:

- Expand Multimodal Capacity – post-pandemic travel pattern shifts and limitations on roadway expansion necessitate a more balanced transportation network that supports all travel modes.
- Improve Operations – a largely built-out roadway network requires a greater focus on enhancing efficiency, safety, and reliability.
- Enhance Accessibility – first- and last-mile gaps and limited transit coverage in some areas highlight the need for targeted investments that support mobility for all users, particularly for transit-dependent populations.
- Strengthen System Resiliency – increasing exposure to climate-related risks and long-term funding uncertainty necessitate proactive strategies to prepare the system to adapt to potential disruptions.

These goals reflect priorities that have been refined since adoption of the 2022 LRTP, Directions 2045, through Board actions addressing transit performance, management of congestion in a nearly built-out freeway system, and recent efforts to improve system resiliency. Continued discussion of post-pandemic travel patterns and the long-term sustainability of programs nearing the 2041 sunset of the Measure M2 (M2) sales tax for transportation improvements have further shaped how the 2026 LRTP approaches long-range investment priorities. The following section describes how these considerations are reflected in the draft 2050 Preferred Plan (Preferred Plan) framework and project list.

Discussion

The Preferred Plan framework organizes projects and programs into five modal categories. The proposed projects and programs directly address the LRTP goals and respond to state and federal policies and travel trends. A listing of the projects modeled in the 2050 Preferred Plan scenario is included in Attachment A.

Preferred Plan Framework

1. Transit System Improvements

The Preferred Plan builds on the near-term improvements identified in the Making Better Connections Plan to include additional transit service enhancements that improve bus travel time and advance corridor-based strategies identified in the 2024 OC Transit Vision (Transit Vision) and other transit safety and optimization studies. These efforts reflect a shift toward

improving the performance and competitiveness of transit within the existing network.

Consistent with the Transit Vision, the Preferred Plan assumes implementation of increased service levels and capital improvements in Transit Opportunity Corridors, which represent corridors with high ridership potential and that are well suited for transit service enhancements. The improvements may include dedicated lanes, queue-jump treatments, and transit signal priority to improve bus speed and travel-time reliability. The Preferred Plan also includes projects that strengthen intermodal connectivity and stop and station improvements to enhance customer experience.

The Preferred Plan retains several transit programs currently funded by M2 that will continue to advance long-term mobility goals, including Safe Transit Stops, and OC Streetcar.

2. Roadway System Optimization

Roadway projects included in the Preferred Plan focus on improving safety, reducing delay, and optimizing utility of the existing roadway network, with an emphasis on strategies that can be implemented within existing right-of-way. These projects are intended to address both freeway and arterial system needs and support all roadway users including personal vehicles, transit operations, goods movement, and active transportation.

The Preferred Plan fully implements the M2 freeway program and includes additional improvements informed by the 2024 Freeway Chokepoint Study. These additional improvements generally consist of operational enhancements, such as improved merge and weave areas, auxiliary lanes, and ramp modifications that improve safety and traffic flow without expanding general purpose lane capacity.

The Preferred Plan retains several effective roadway programs that are currently funded by M2 and are assumed to continue beyond the 2041 sunset date because of their contribution to system performance. These include locally developed projects through the Roadway Capacity Program and regional traffic signal synchronization, which play a critical role managing congestion on local streets.

In addition, the Preferred Plan assumes continued advancement of transportation systems management and operations strategies including intelligent transportation systems, managed lane operations, connected vehicle technologies, and real-time traffic management. The Preferred Plan assumes a gradual transition of the high-occupancy vehicle lane system to a tolled express

lane system to improve travel-time reliability, which is consistent with the California Department of Transportation's long-term plans.

3. Enhanced Active Transportation

To support and encourage active transportation in Orange County for everyday trips, the associated projects included in the Preferred Plan focus on enhancing safety, improving connectivity, and expanding the bikeway and pedestrian network. Projects in this category emphasize coordination and partnership with local jurisdictions to reflect community context and local priorities.

The Preferred Plan builds on initiatives carried forward from the prior LRTP, including gap closure in the countywide bikeway network, such as the OC Loop and OC Connect, and continued support for safety-focused programs including Safe Routes to School, Next Step, and electric bicycle safety education. The Preferred Plan also incorporates findings from the ongoing Bikeways Connectivity Study, which identifies opportunities to implement complete streets elements on Master Plan of Arterial Highways (MPAH) segments with spare capacity.

4. Mobility Integration

The mobility integration category includes projects and programs that improve connections between travel modes and reduce barriers to multimodal travel, with a focus on addressing first- and last-mile gaps. These strategies are intended to expand access to transit, reduce single-occupancy vehicle travel, and improve mobility options for transit reliant populations.

The Preferred Plan retains several effective programs currently funded by M2, including the community circulators and senior and disability mobility programs. Other travel demand management strategies including reduced fare programs (i.e. Youth Ride Free and College Pass), OC Vanpool, rideshare support, and remote work continue to play an important role in supporting mobility and managing travel demand.

The Preferred Plan also advances the concept of a countywide mobility hub network to improve intermodal connectivity. Mobility hubs provide multiple transportation options at a single location to support targeted travel needs within a localized area. Common features include transit service, micromobility options, park-and-ride, wayfinding information, and rideshare services. When implemented successfully, mobility hubs can improve access to transit, reduce first- and last-mile barriers, support transit-oriented development, and reduce reliance on single-occupancy vehicle travel. A mobility hub concept of operations is currently under development to guide future planning and implementation, with

an initial focus on locations near regional transit corridors, major activity centers, and employment areas.

5. Resilience and System Readiness

The resilience and system readiness category focuses on maintaining and protecting transportation assets, preparing the system for climate-related risks, and positioning Orange County to adapt to evolving technologies and changing conditions. Projects in this category support long-term system reliability, sustainability, and continuity of service.

The Preferred Plan builds on several ongoing initiatives, including OCTA's transition to a zero-emission bus fleet and current M2-supported initiatives, including funding for local pavement maintenance, freeway environmental mitigation, and environmental cleanup programs. Based on reported Pavement Condition Index data, Orange County consistently ranks among the top-performing counties statewide in pavement conditions, reflecting both the supplemental funding provided directly to cities and the County through the half-cent sales tax M2 and the emphasis it has placed on preserving roadway investments. The Preferred Plan also incorporates strategies identified in OCTA's 2024 Climate Adaptation and Sustainability Plan to address risks such as extreme heat, flooding, and wildfire impacts on transportation infrastructure.

Additional projects include short-term and mid-term solutions from the Coastal Rail Resiliency Study to address vulnerabilities along the rail corridor and to help ensure uninterrupted rail operations. Goods movement strategies are also included as they span multiple parts of the transportation system and support supply-chain reliability, emissions reductions, and long-term economic resiliency.

Initial Model Results

This LRTP evaluates travel conditions for a 2050 horizon year that reflects the Orange County Projections 2022 socioeconomic forecast prepared by the Center for Demographic Research at California State University, Fullerton. These projections include approximately three percent population growth, a ten percent employment growth, and 13 percent housing growth between the 2024 base year and 2050.

Initial travel demand modeling was completed for the 2024 Existing, 2050 No Build, and Preferred Plan scenarios. The 2050 No Build scenario assumes no changes to the existing 2024 transportation network while accounting for forecasted population, housing, and employment growth and serves as a baseline to isolate the effects of socioeconomic growth on travel demand. The draft 2050 Preferred Plan scenario reflects the same demographic assumptions

but includes the set of proposed projects and programs that can be represented in the travel demand model.

Preliminary results for selected daily performance measures are summarized in the following table. Overall, the benefits of the proposed Preferred Plan are highlighted by higher transit trips, fewer vehicle person trips, reduced congestion, and improved peak period travel speed when compared to the 2050 No Build scenario.

Performance Measure (Daily)	2024 Existing	2050 No Build	2050 Preferred Plan
Vehicle Person Trips	14,858,000	15,390,000 <i>+4% vs 2024</i>	13,769,000 <i>-11% vs 2050 No Build</i>
Transit Person Trips	98,000	103,000 <i>+4% vs 2024</i>	116,000 <i>+16% vs 2050 No Build</i>
Delay as Percent of Travel Time	11%	13%	9%
Peak Period Freeway Speed (Miles per Hour)	48.7	47.3	47.7
Peak Period Arterial Speed (Miles per Hour)	28.4	28.0	28.8
Vehicle Miles Traveled (VMT) per Capita	23.6	24.1	24.2

The increase in transit trips under the Preferred Plan reflects the combined effects of the proposed implementation of transit opportunity corridors, transit signal priority, and first- and last-mile improvements. The results also demonstrate meaningful congestion relief, with daily vehicle hours of delay substantially lower than in the 2050 No Build scenario and delay as a percentage of travel time improving to better than existing conditions. Improvements in peak period freeway and arterial speeds reflect the benefits of signal synchronization, buildout of the MPAH network, and expanded multimodal capacity.

The VMT per capita remains essentially flat between the 2050 No Build and Preferred Plan scenarios, indicating that even with the planned capacity improvements on freeways and arterials, the Preferred Plan can still provide benefits without increasing per-person driving demand.

These results are preliminary and will be refined as needed throughout the development of the 2026 LRTP. The initial findings indicate that the Preferred Plan is moving the transportation system in the direction that supports the LRTP goals.

Community Engagement

Phase 1 of public outreach was conducted between September and November 2025 to gather input on transportation priorities and challenges in Orange County. Outreach activities included a multilingual online survey, community events, a public webinar, a community leaders roundtable, and targeted stakeholder briefings. More than 1,800 surveys were collected, and more than 72,000 community members were reached via community events, public presentations, fliers, eblasts, and text notices.

Outreach was designed to engage a broad cross-section of Orange County residents. Survey responses were received from every city and unincorporated areas, and materials were provided in multiple languages to reduce barriers to participation. Engagement methods included multilingual print and digital media, print and radio advertising, social media, flier distribution, interior bus ads, text campaigns, project website and video, and a multilingual helpline.

Overall, public input highlighted concerns related to traffic congestion and expressed interest in expanding multimodal travel options and maintaining local transportation funding sources. Public input from this outreach effort informed the development of the Preferred Plan framework and the refinement of project categories. A summary of the Phase 1 public outreach survey results is provided in Attachment B.

Next Steps

Over the next several months, staff will develop a financial forecast and continue refining the project list and performance analysis as needed. The draft 2026 LRTP will be presented to the Board to review findings and provide input prior to the release of the draft plan to the public in summer 2026 as part of the Phase 2 of public outreach. Final adoption of the 2026 LRTP is scheduled for late 2026.

Summary

Orange County's transportation system continues to face new and evolving challenges. While OCTA's transit services, M2 investments, and other committed projects provide a strong foundation, additional strategies will be needed to address shifting travel patterns, climate risks, and long-term funding gaps. The draft 2050 Preferred Plan emphasizes multimodal investments, operational efficiency, accessibility, and system resiliency to position Orange County's transportation system for long-term success.

Attachments

- A. 2026 Long-Range Transportation Plan Draft 2050 Preferred Plan: Modeled Projects
- B. Community Survey Results and Outreach Fall 2025

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