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MEETING OF THE

REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE

Wednesday, April 29, 2026
10:00 a.m. – 12:00 p.m.

*****ZOOM AND TELECONFERENCE ONLY*****

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If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Priscilla Freduah-Agyemang at (213) 236-1973 or email agyemang@scag.ca.gov

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REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE
AGENDA
Wednesday, April 29, 2026

==========

The Regional Transit Technical Advisory Committee may consider and act upon any of the items listed on the agenda regardless of whether they are listed as information or action items.

1.0 CALL TO ORDER
(Aubrey Smith, Regional Transit TAC Chair)

2.0 PUBLIC COMMENT PERIOD – Members of the public desiring to speak on an agenda item or items not on the agenda, but within the purview of the Regional Transit Technical Advisory Committee, must use the "raise hand" function on your computer or dial *9 by phone, and wait for the Chair to announce your name/phone number. Limit oral comments to three (3) minutes, or as otherwise directed by the Chair. The Chair may limit the total time for all comments to twenty (20) minutes.

3.0 RECOGNITION OF PAST CHAIR AND INTRODUCTION OF NEW VICE CHAIR
(Aubrey Smith, Regional Transit TAC Chair)

4.8	Uber Transit Innovation Fund (Priscilla Freduah-Agyemang, SCAG)		42

5.0 INFORMATIONAL ITEMS

5.1	**Transportation Management Area Certification** (Mervin Acebo, FTA)	5	-
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5.4	**Observations from 2026 Winter Olympic Games in Milan** (Michael Litschi, Metrolink)	20	65
5.5	**CalITP Updates** (Lilly Shoup, Rebel Group/Caltrans)	20	85

6.0 STAFF REPORT

6.1	**SB79 Updates** (Elizabeth Carvajal, SCAG)	5
6.2	**Innovative Clean Transit Regional Assessment Study Updates** (Priscilla Freduah-Agyemang, SCAG)	5
6.3	**Connect SoCal Updates** (Priscilla Freduah-Agyemang, SCAG)	5
6.4	**High Quality Transit Corridor (HQTC)/Major Transit Stop (MTS) Updates** (Alexis Murillo Felix, SCAG)	5

7.0 ADJOURNMENT

The next Regional Transit Technical Advisory Committee meeting is tentatively scheduled for July 29, 2026.

Regional Transit Technical Advisory Committee (RTTAC)
of the
Southern California Association of Governments

January 28, 2026

Minutes

THE FOLLOWING MINUTES ARE A SUMMARY OF ACTIONS TAKEN BY THE REGIONAL TRANSIT TECHNICAL ADVISORY COMMITTEE (RTTAC). AN AUDIO RECORDING OF THE MEETING IS AVAILABLE FOR LISTENING IN SCAG'S OFFICE.

The Regional Transit Technical Advisory Committee held its meeting virtually (telephonically and electronically). The meeting was called to order by Chair, Jennifer Nguyen, Riverside Transit Agency.

Members Participating:

Jennifer Nguyen (Chair)	Riverside Transit Agency
Aubrey Smith (Vice Chair)	Ventura County Transportation Commission
Geraldina Romo	Antelope Valley Transit Authority
Tyron Gunn	Beach Cities Transit
Elisa Mendoza	City of Beaumont
Alyssa Mendez	City of Commerce
Patti Solano	City of Riverside Special Transportation
David Richardson	City of Riverside Special Transportation
Abdallah Daboussi	City of Santa Monica Big Blue Bus
Barbara Andres	City of Santa Monica Big Blue Bus
Alfredo Torales	City of Santa Monica Big Blue Bus
Ben Gonzales	City of Simi Valley
Ron Profeta	City of Riverside
Randy Barragan	City of Riverside
Alina Chalas	City of Thousand Oaks
Josh Landis	Foothill Transit
Gustavo Gomez	Imperial County Transportation Commission
Chun Leung	Los Angeles Department of Transportation
Teresa Wong	Los Angeles Metro
Allison Higgins	Los Angeles Metro
Lori Huddleston	Los Angeles Metro
Shelby Michael	Los Angeles Metro
Eva Moon	Los Angeles Metro
Brian Jacob	Metrolink
Collin Mullaney	Metrolink
Alfredo Machuca	Montebello Bus Lines
Chris Wood	Montebello Bus Lines
Dezerei Mitchell	Montebello Bus Lines
Eddie Scandura	Montebello Bus Lines
Yessie Granados	Montebello Bus Lines

Julio Recinos	Montebello Bus Lines
Robert Fierro	Montebello Bus Lines
Cesar Lopez	Montebello Bus Lines
Cheri Holsclaw	Morongo Basin Transit Authority
Alex Shippau	Omnitrans
Ben Nolen	Omnitrans
Jeremiah Bryant	Omnitrans
Nick Echeverri	Santa Clarita Transit
Charles Main	Orange County Transportation Commission
Melissa Mungia	Orange County Transportation Commission
Lorelle Moe-Luna	Riverside County Transportation Commission
Sheldon Peterson	Riverside County Transportation Commission
Eric DeHate	Riverside County Transportation Commission
Joe Raquel	Riverside County Transportation Commission
Nicole Soto	San Bernardino County Transportation Authority
Kim Turner	Torrance Transit System
James Lee	Torrance Transit System
Ryan Plumb	Torrance Transit System
Dana Curtis	Victor Valley Transit Authority
Rod Goldman	Victor Valley Transit Authority
Karen Herrera	Caltrans D7
Linda Mendez	Caltrans D7
Miya Edmonson	Caltrans D7
Carlo Ramirez	Caltrans D7
Samira Jafarnejad	Caltrans D7
Darleen Reyes	Caltrans D8
Joshua Pulverman	Caltrans (H.Q))
Benji Garcia	Caltrans (H.Q)
Fang Yan	ICF

SCAG Staff:

Priscilla Freduah-Agyemang	Alexis Murillo-Felix
Courtney Aguirre	Isabelle Legare
Krystal Ayala	Kevin Diep
Jennifer Martinez	Camille Guiriba
Elizabeth Carvajal	Turner Lott

1.0 CALL TO ORDER

Jennifer Nguyen, Riverside Transit Agency, Chair, called the meeting to order at 10:05 a.m. Agencies and attendees introduced themselves.

2.0 PUBLIC COMMENT PERIOD

No members of the public requested to comment.

3.0 RECEIVE AND FILE

3.1 Minutes of the October 29, 2025, RTTAC Meeting
3.2 2026 RTTAC Agenda Outlook
3.3 FTA Major Event Playbook
3.4 California Air Resources Board (CARB) Clean Truck and Bus Voucher (HVIP) Funding Reopening
3.5 TIRCP Cycle 8 Draft Guidelines and Schedule
3.6 Generation Zero 2026
3.7 Caltrans Data and Digital Services Portfolio

Priscilla Freduah-Agyemang, SCAG staff, briefly reviewed the Receive and File items. She briefly highlighted the 2026 RTTAC Agenda Outlook, the TIRCP Cycle 8 draft Guidelines and Schedule, and the Generation Zero 2026 event. She asked members to share feedback on the Agenda Outlook and asked that all questions related to the rest be directed to her through email or call.

4.0 INFORMATIONAL ITEMS

4.1 Transit Transformation Task Force Final Report

Lorelle Moe-Luna, Multimodal Services Director at Riverside County Transportation Commission (RCTC), provided an update on the Transit Transformation Task Force Final Report. Ms. Moe-Luna briefly described the key discussions in the various sections within the final report. She highlighted the five guiding principles of the report including: transit should be operationally and financially sustainable; safety is fundamental; transit services should be fast, reliable, connected, and convenient; transit should be accessible and easy to use for all; and public transit systems should support the development of complete communities. These guiding principles were adopted to set the stage for strategies and recommendations.

Mrs. Moe-Luna summarized the key recommendations adopted in the report, noting that while many transit agencies may already be considering or implementing several of them, the report's greatest value lies in its funding recommendations. She then outlined the next steps and identified the key gaps in emphasizing the need to establish new and alternative statewide funding sources to support agencies in achieving the state's transformative goals. Moe-Luna then turned the discussion to Ms. Priscilla Freduah-Agyemang.

Priscilla Freduah-Agyemang, SCAG, explained SCAG's role in conducting outreach in the region relating the final report including soliciting feedback from the RTTAC. She noted - MTC, Metro, and SCAG are jointly developing a letter to CalSTA that outlines key highlights and concerns from the final report. Ms. Freduah-Agyemang explained that the letter will

be shared with transit agencies and that agencies will be asked to provide feedback and indicate their support. She also noted the letter's expedited timeline. Courtney Aguirre, SCAG, clarified that the letter would be directed to the state legislature and not CalSTA.

4.2 Caltrans Director's Transit Policy

Benji Garcia, Branch Chief for Transit Policy and Implementation, CalTrans, provided a brief overview of CalTrans' Director's Transit Policy and next steps for its implementation. Mr Garcia shared that the policy establishes the Department's first enterprise-wide framework for advancing transit-supportive supporting climate, equity, safety, and community goals while providing clear direction for delivering transit priority projects on the state highway system. The policy also establishes a clear blueprint for Caltrans' roles and responsibilities, including delivering projects that incorporate transit priority facilities.

Mr. Garcia explained that, as part of the policy, Caltrans is developing a transit implementation plan, which will be completed between spring and summer 2026. He added that the agency is also in the process of establishing the Caltrans Transit Advisory Committee, which will include 20 voting members, who will represent diverse transit stakeholders across California.

Mr. Garcia shared that the Caltrans district transit plans are being developed in parallel with the new transit policy. He explained that the district plans are guided by five principles: reliability and service, access, customer experience, resilience and sustainability, and equity. He added that outreach for the district transit plans will begin this summer, with completion anticipated by February 2027.

Jennifer Nguyen, RTA, asked for clarification about the call for applicants for CalTrans' Transit Advisory Committee. Benji Garcia responded that the call for applicants will be published within the first quarter of this calendar year.

4.3 TAP – Contactless Credit & Debit Card Fare Payment for Regular Fare Riders

Allison Higgins, Metro, provided a brief update on the contactless credit and debit card payment program launching for regular fare riders in spring 2026. Ms. Higgins highlighted that riders using Metro and all 27 TAP transit agency partners will be able to use credit or debit cards at TAP validators for payment of fares. She also noted that contactless payment for reduced fare riders will launch in early 2027. She shared that Metro has expanded validators to accept international banks considering the upcoming international sporting events.

Ms. Higgins highlighted the benefits he benefits available to riders using debit or credit card payments, noting that they will be eligible for discounted inter-agency transfers, 2-hour transfers, and fare capping. She noted that riders must use the same physical or digital card in order to receive discounted benefits, as the system treats physical and digital cards as separate cards. She added that riders who switch between a physical card and a

digital card will not receive discounted benefits. Lastly, Ms. Higgins shared that riders will be able to view their transaction history.

Jennifer Nguyen, RTA, asked if prepaid gift cards would work with the TAP validators. Ms. Higgins responded that prepaid gift cards would work if they had an EMV chip. Priscilla Freduah-Agyemang, SCAG, asked if they had worked out the technicalities between paying with one card for multiple riders at a gated validator entrance. Ms. Higgins shared that they are still testing scenarios involving multiple taps for a group of riders. She noted that the limitation of time between taps is limited to two minutes. Ms. Freduah-Agyemang followed up that the 2-minute time limitation may not be enough for families figuring out the system. Ms. Higgins stated that she would pass this information forward to the testing team.

Jennifer Nguyen, RTA, again asked whether credit card fees are absorbed by the rider or Metro. Ms. Higgins responded that she has been he has received this question previously and would provide an update to the committee once the information becomes available. Jennifer Nguyen asked why discounted riders have a later implementation than regular riders. Ms. Higgins shared that this is due to the change from a card-based system to an account-based system. Once the system is changed to an account-based system, validators will be able to differentiate between discounted and non-discounted riders. Lastly, Jennifer Nguyen asked about Metro's fare capping levels, to which Ms. Higgins responded that Metro offers a single-day fare cap and a seven-day fare cap.

4.4 Innovative Clean Transit Regional Assessment Study Update

Fang Yan, Project Manager, ICF, provided an update on SCAG progress on the Innovative Clean Transit Regional Assessment Study update. Ms. Yan highlighted the results of the targeted outreach surveys, noting that utility coordination, funding and incentives, and operations were among the key topics discussed. She then summarized the findings from the targeted one-on-one interviews.

Ms. Yan discussed the best practices identified through research and outreach, including regulatory and planning approaches, ZEB technology, charging infrastructure, operations, maintenance, workforce development, and funding. She then addressed regional readiness, highlighting differences between larger and smaller agencies across the region.

Ms. Yan outlined the challenges the region is experiencing, including gaps in ZEB rollout planning, operational and technological barriers, funding and physical constraints, and policy and regulatory challenges. She also discussed the opportunities associated with the transition to clean transit. Ms. Yan concluded her presentation by outlining the next steps for the study, including the development of a final report in June 2026.

4.5 LA Metro Cloud Based Bus Transit Signal Priority

Eva Moon, Senior Manager, LA Metro, provided an update on LA Metro's Countywide Transit Signal Priority (TSP) program. Ms. Moon provided a brief overview of TSP, explaining the various terms associated with the program, such as, Bus Signal Priority (BSP). She noted that TSP allows buses to receive early or extended green signals, to help them move more efficiently through intersections, improving travel time, bus speed, and reliability, and clarified that TSP is distinct from signal preemption. Ms. Moon then described how TSP and related technologies have evolved over time, explaining that the current system relies on GTFS and API feeds, and uses cloud-based platforms to coordinate with traffic signal controls to implement TSP in the field.

Eva Moon described the evolution of the TSP program since its establishment in 1998, highlighting its multi-jurisdictional nature and the infrastructure required to support use by multiple agencies across the county. She also discussed the complexities of implementing TSP, including coordination across numerous jurisdictions, varied hardware systems, and a wide range of stakeholders involved throughout the county.

Eva Moon highlighted that the county is transitioning to a cloud-based system that will streamline and improve TSP operations across jurisdictions in Los Angeles County. She noted the growing number of corridors and intersections transitioning to a cloud-based solution and added that the current goal is to expand the program to a total of 2,500 TSP-equipped intersections countywide, with 96 percent incorporated into a cloud-based TSP system prior to the 2028 Olympic Games.

4.6 Connect SoCal Overview and Schedule

Camille Guiriba, Senior Regional Planner, SCAG, presented a preview of SCAG's Connect SoCal 2050. Ms. Guiriba provided an overview of SCAG's responsibilities and requirements in developing the Regional Transportation Plan (RTP) and highlighted the status of RTP development. She noted that SCAG will be seeking approval of its Public Participation Plan this winter. She added that in the spring, SCAG will begin engaging stakeholders and the public and will launch the Local Data Exchange (LDX). Lastly, Ms. Guiriba noted that the project list solicitation is expected to begin this summer.

4.7 2028 Olympic and Paralympic Games Planning Update

Turner Lott, Senior Regional Planner, SCAG, provided an update on the Transportation Demand Management (TDM) Program for the LA28 Olympic and Paralympic Games. Mr. Lott began his presentation with updates on ticketing and the overall timeline for the Games, highlighting the high level of demand and interest in the event. He then outlined SCAG's role in preparing for the Games, particularly with respect to TDM strategies for both passenger and freight travel.

Mr. Lott then discussed SCAG's efforts to develop TDM strategic plans for passengers and freight and shared progress on creating regionwide Games-related TDM resources. These efforts include updates to the TDM toolbox, development of the Games TDM Resource Guide, outreach to businesses, and supporting communication materials. He also described the recommendations and resources included in the Games TDM Resource Guide, such as potential strategies, projects, community activations, communications, and partnerships. Mr. Lott clarified that the development of TDM plans is being carried out through ongoing collaboration with local and regional partners via subcommittees, forums, stakeholder meetings, and focus groups. He noted that the next regional forum for passengers is scheduled for the last Wednesday of March, while the next forum for freight is scheduled for the first Wednesday of April.

Mr. Lott then presented SCAG's TDM strategy timeline, outlining the remaining phases of implementation: concluding planning and engagement in 2026, deploying and supporting strategies in 2027, and expanding and evaluating efforts in 2028. He concluded his presentation with an update on Games-related transit improvements beyond TDM efforts, including Caltrans' Games Route Network CEQA submittal, Metro's acquisition of 834 of the 1,747 buses needed for the Games, and Metro's release of the Open & Slow Streets Cycle 6–7 awards.

5.0 STAFF REPORT

5.1 SB 79 Update

Elizabeth Carvajal, Deputy Director of Land Use at SCAG, provided a brief update on SB 79. Mrs. Carvajal explained that Metropolitan Planning Organizations (MPOs), including SCAG, are required to develop maps of transit-oriented development (TOD) stops and zones in accordance with SB 79. She noted that the Housing and Community Development Department (HCD) is responsible for providing the information needed for MPOs to develop these maps, and explained that HCD is currently developing guidance for MPOs. Once SCAG receives this guidance, the agency will develop the map, engage partners, and seek board approval. Ms. Carvajal concluded by encouraging members to direct inquiries regarding SB 79 to SB79@scag.ca.gov.

6.0 ADJOURNMENT

Jennifer Nguyen, Chair, adjourned the meeting at 11:56 a.m.

AGENDA ITEM 8

REPORT

Southern California Association of Governments
March 5, 2026

To: TC - Transportation Committee

From: Alexis Murillo-Felix, Senior Regional Planner
213-630-1461, felix@scag.ca.gov

Subject: Transportation Trends Update

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION:
Receive and File

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 3: Spur innovation and action through leadership in research, analysis and information sharing.

EXECUTIVE SUMMARY:
Considering the COVID-19 pandemic's enduring impacts on travel behavior, SCAG staff provides the Transportation Committee with regular updates on transportation trends, including the impacts from remote work. The report attached provides a comprehensive analysis of post-pandemic transportation trends across the SCAG region. As of December 2025, the region's transit and roadway systems continue to recover, though progress remains uneven across modes. Bus ridership has shown the strongest rebound, reaching 88 percent of pre-pandemic levels, followed by light and heavy rail at 64 percent, and commuter rail at 58 percent. Vehicle miles traveled (VMT) have recovered to 98 percent of pre-pandemic levels, while vehicle hours of delay (VHD) remain significantly lower at 75 percent, indicating more efficient travel patterns possibly driven by hybrid work arrangements. Truck VMT has stabilized at approximately 95 percent of pre-pandemic levels. Remote work continues to reshape travel behavior, with 33 percent of full workdays still occurring from home in the SCAG region.

BACKGROUND:
The SCAG region is served by over 100 transit operators providing bus, rail, and commuter rail services across six counties: Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. However, 27 transit agencies were selected based on their operational scale and the availability of comparable ridership data to focus the analysis of the attached report. The network includes large regional agencies like Los Angeles County Metropolitan Transportation Authority (LA Metro), Orange County Transportation Authority (OCTA), and Southern California Regional Rail Authority (SCRRA) which operates Metrolink, as well as a wide range of local municipal operators. Bus systems dominate the public transportation landscape in terms of coverage and ridership, particularly in dense urban areas.

Metrolink, the region's commuter rail provider, links the six counties with longer-distance service across seven lines. This regional diversity underpins the importance of analyzing ridership and system performance collectively.

Travel Trends and Ridership Recovery

The analysis in the attached report draws on multiple data sources to assess how travel patterns have evolved since the COVID-19 pandemic. Ridership data from the National Transit Database (NTD), LA Metro, and SCRRA highlight distinct trends by mode:

- Bus ridership is leading the recovery, with 88 percent of pre-pandemic levels restored. Growth has been steady but uneven, reflecting seasonal variation.
- Light and heavy rail ridership has reached 64 percent of pre-pandemic levels, though gains have been inconsistent due to fluctuating demand and travel preferences.
- Metrolink's commuter rail system has rebounded to 58 percent, supported by its transition to an all-day service model aimed at accommodating hybrid commuters and discretionary trips.

The report details rolling trends and month-over-month change comparisons, illustrating seasonal patterns, recovery plateaus, and the effects of service expansions. Collectively, these data points emphasize the challenges and opportunities in restoring transit usage to pre-pandemic levels.

Roadway Volumes, Goods Movement, and Remote Work Impacts

Vehicle travel on the region's highways has largely rebounded. According to California Performance Measurement System (PeMS) data:

- VMT has recovered to 98 percent of pre-pandemic volumes, indicating near-full resumption of driving activity.
- VHD, a measure of congestion, remains below pre-pandemic levels at 75 percent, suggesting more efficient traffic flow likely due to ongoing remote and hybrid work patterns.
- Truck VMT has settled at 95 percent, reflecting shifts in freight logistics, e-commerce demand, and industrial activity.

Remote work continues to exert a strong influence on travel demand. Using Survey of Working Attitudes and Arrangements (SWAA) data, the report finds that roughly one-third of workdays are still performed from home, a trend that has remained stable since early 2023. This persistent behavior helps explain continued reductions in peak-period congestion and transit ridership lag in downtown corridors.

Together, the findings offer a nuanced picture of how Southern California's mobility landscape is evolving. Showcasing that the persistence of flexible work, dispersed trip-making, and new travel preferences call for adaptive planning approaches and policy strategies.

NEXT STEPS:
Staff will continue to provide bi-annual updates to the Transportation Committee on regional transportation and work-from-home trends using monthly PeMS, NTD, and SWAA data as the data becomes available. Staff will also continue to update the work-from-home statistics monthly on the SCAG SoCal Economic Trends Dashboard.

FISCAL IMPACT:
None

ATTACHMENT(S):
1. Transportation Trends Report Through December 2025

SCAG

Multimodal Integration Program

Transportation Trends Report: December 2025

MARCH 2026

MOBILITY + COMMUNITIES + ENVIRONMENT + ECONOMY

AJ1.26-417-MMI-0343.19.12.2026

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List of Exhibits

Introduction

The SCAG region is home to a diverse and expansive public transit ecosystem, with over 100 operators providing a broad range of services across its six counties. These services span local fixed-route bus systems, regional transit networks, intercity services, and commuter rail—reflecting the region's varied geography and population density.

To focus this analysis, 27 transit agencies were selected based on their operational scale and the availability of consistent and comparable ridership data. These agencies represent a cross-section of public operators, including municipal systems, joint powers authorities (JPAs), county transportation commissions, and transit districts. Exhibit 1 categorizes these agencies by county and mode.

Each county's transit network is shaped by its unique context:

- Imperial County is served by the Imperial County Transportation Commission, which offers intercity bus services across a vast, rural area.
- Los Angeles County features the highest number and variety of operators. Los Angeles County Metropolitan Transportation Authority (LA Metro) operates an extensive network that includes local and rapid bus service, as well as both light rail and heavy rail lines. Smaller municipal operators such as Santa Monica's Big Blue Bus, Culver CityBus, and the Los Angeles Department of Transportation (LADOT) also provide critical bus services within the county.
- In Orange County, the Orange County Transportation Authority (OCTA) operates a comprehensive fixed-route bus system, while Anaheim Transportation Network (ATN) offers circulator and shuttle services, particularly in the resort district.
- In Riverside and San Bernardino counties, major operators include Riverside Transit Agency (RTA), SunLine Transit Agency, and Omnitrans, each of which provides local and regional bus service.
- Ventura County's transit landscape includes Gold Coast Transit District and the Ventura County Transportation Commission, both of which provide regional and local bus service.
- Commuter rail service across five counties in the SCAG region is provided by Metrolink, which connects key population centers via seven lines. As a regional backbone for longer-distance and intercounty commuting, Metrolink supports systemwide mobility and integration.

Exhibit 1 Public Transit Operators in the SCAG Region

County	Transit Agency	Service Area	Mode
Imperial	Imperial County Transportation Commission	Regional	Bus
Los Angeles County	Antelope Valley Transit Authority	Local	Bus
	Beach Cities Transit (City of Redondo Beach)	Local	Bus
	City of Commerce Municipal Buslines	Local	Bus
	City of Gardena Transportation Department	Local	Bus
	Culver CityBus	Local	Bus
	Foothill Transit	Regional	Bus
	Glendale Beeline	Local	Bus
	Los Angeles County Metropolitan Transportation Authority	Regional	Bus, Heavy/Light Rail
	Los Angeles Department of Transportation	Regional	Bus
	Long Beach Transit	Local	Bus

County	Transit Agency	Service Area	Mode
	Montebello Bus Lines	Local	Bus
	Norwalk Transit System	Local	Bus
	Pasadena Transit	Local	Bus
	Santa Clarita Transit	Local	Bus
	Santa Monica Big Blue Bus	Local	Bus
	Torrance Transit	Local	Bus
Orange County	Anaheim Transportation Network	Local	Bus
	Orange County Transportation Authority	Regional	Bus
Riverside County	Riverside Transit Agency	Regional	Bus
	SunLine Transit Agency	Local	Bus
San Bernardino County	Omnitrans	Regional	Bus
	Victor Valley Transit Authority	Local	Bus
	Arrow Service	Local	Light Rail
Ventura County	Gold Coast Transit	Regional	Bus
	Ventura County Transportation Commission	Regional	Bus
Multi County	Southern California Regional Rail Authority	Regional	Commuter Rail

In addition to ridership trends, this report presents a comprehensive analysis of travel behavior in the SCAG region using three primary datasets:

- **National Transit Database:** Provides monthly ridership trends by mode and operator.
- **California Performance Measurement System:** Offers near real-time data on vehicle miles traveled, vehicle hours of delay, and truck activity on the state highway system.
- **Survey of Working Attitudes and Arrangements:** Captures how remote and hybrid work patterns are reshaping commute behavior.

Each dataset offers a unique perspective. Together, they help contextualize how travel has changed in the post-pandemic era—highlighting uneven recovery across counties and modes, as well as emerging trends such as reduced congestion and persistent telework. By referencing these sources and developing integrated analysis, this report provides SCAG's Transportation Committee, policymakers, and stakeholders with a timely, data-driven foundation to:


Evaluate shifts in travel behavior across the region.


Shape future transportation investment and planning decisions.


Develop strategies to rebuild transit ridership.


Assess the equity impacts of transportation trends.


Anticipate changes in commuting patterns due to hybrid work arrangements.

Overall Transportation Trends

This report evaluates transportation trends and ridership across the SCAG region by mode and month and provides a systemwide assessment, regardless of whether specific rail lines have opened, extended, or suspended service during the evaluation period. Similarly, bus agencies across the region adjust service levels by suspending or discontinuing routes as needed. The intent of this report is to evaluate overall bus and rail ridership totals rather than analyze changes at the individual route level. For the purposes of assessing post-pandemic ridership recovery, this report uses fiscal year 2018-19 as the baseline year for comparison.

As of December 2025, transit ridership and vehicle travel in the SCAG region have continued to recover from the impacts of the COVID-19 pandemic, though patterns vary by mode, further summarized below:

- Across all transit modes, bus ridership has led the recovery, followed by light and heavy rail, while commuter rail has been the slowest to return to pre-pandemic ridership levels.
- **Bus ridership recovered 88 percent of pre-pandemic ridership** as of December 2025, with ridership growth averaging 0.1 percent the last 12 months.
- **Light and heavy rail ridership recovered 64 percent of pre-pandemic ridership** as of December 2025, with ridership growth averaging 0.3 percent for the last 12 months.
- **Commuter rail ridership recovered 58 percent of pre-pandemic ridership** and experienced a slight decrease month over month, averaging a reduction of 0.5 percent the last 12 months.
- On the roadways, overall vehicle miles traveled (VMT) is at 98 percent of pre-pandemic levels. However, vehicle hours' drive (VHD) has recovered only 75 percent of pre-pandemic levels highlighting the impact of work from home and travel pattern shifts. Truck VMT has trended below pre-pandemic levels at 95 percent.
- Remote work continues to be a key factor; approximately 33 percent of workdays were performed from home over the last year, contributing to reduced peak-hour demand across all travel modes.

DECEMBER 2025 AT A GLANCE

30.2M Bus Trips
88% recovery of pre-pandemic ridership

5.8M Rail Trips
64% recovery of pre-pandemic ridership

537.1K Commuter Rail Trips
58% recovery of pre-pandemic ridership

5.9B VMT
98% recovery of pre-pandemic levels

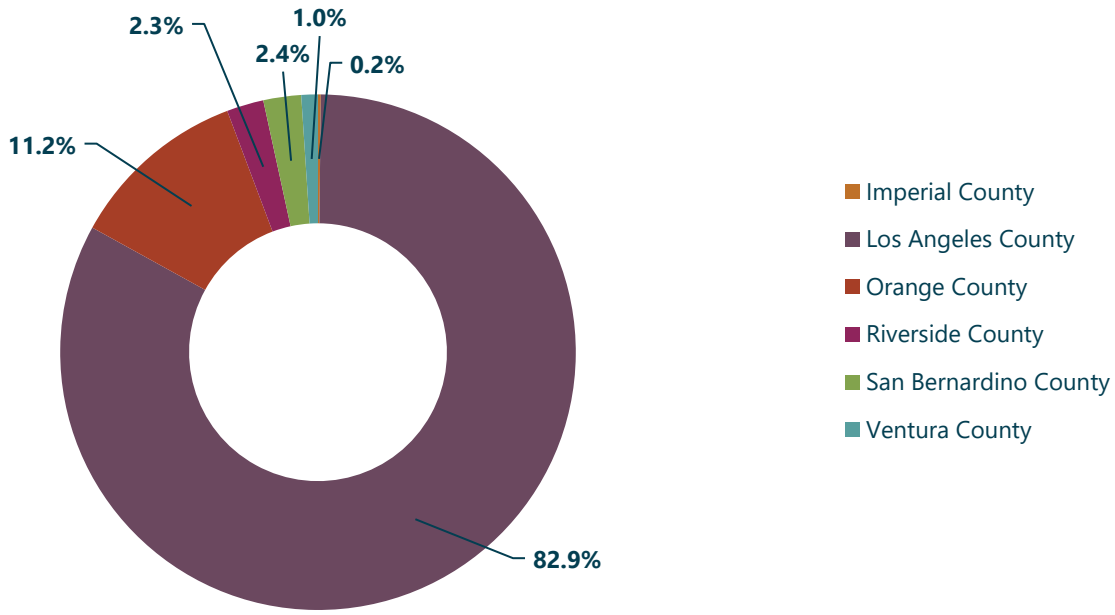
231.4M Truck VMT
95% recovery of pre-pandemic levels

Transit Ridership

BUS RIDERSHIP

Bus ridership in Southern California is heavily concentrated in Los Angeles County, which accounts for the majority of regional trips (82.9 percent). This concentration of regional trips is due to the scale of LA Metro's network and its dense urban coverage (see Exhibit 2). Orange County follows, led by the OCTA's system, with San Bernardino and Riverside counties contributing through agencies like Omnitrans and RTA. Ventura and Imperial counties have comparatively smaller shares, reflecting their lower population densities. Overall, the distribution of ridership aligns closely with population centers and the extent of bus service coverage.

Exhibit 2 Total Bus Passenger Trips Distribution by County in the SCAG Region for Fiscal Year 2025-26, Through December 2025



DATA SOURCE

SCAG staff collected and summarized transit data for the region using the National Transit Database (NTD), administered by the Federal Transit Administration. The NTD is the main source of information on U.S. transit systems. SCAG used the NTD's Monthly Ridership Module to track bus ridership trends. However, the NTD has limitations. There is often a delay of several months between when data is collected and when it becomes available. Sometimes, the latest month's data might be incomplete if agencies submit their reports late. These delays make it difficult to provide immediate and current insights.

BUS RIDERSHIP TRENDS

Exhibit 3 presents bus ridership trends across the SCAG region from January 2025 to December 2025. Bus ridership peaked in May 2025 at 34.3 million trips, followed by a decline through the summer months, reaching a low of 28.3 million in July 2025. A modest rebound is observed through the fall months, with ridership rising to 34 million trips in October 2025. Ridership fell to 29.2 million in November before modestly recovering to 30.2 million in December, reflecting a typical late-year seasonal decline in ridership associated with holiday travel patterns and reduced commute activity.

Exhibit 3 Bus Total Unlinked Passenger Trips, 12 Month Rolling

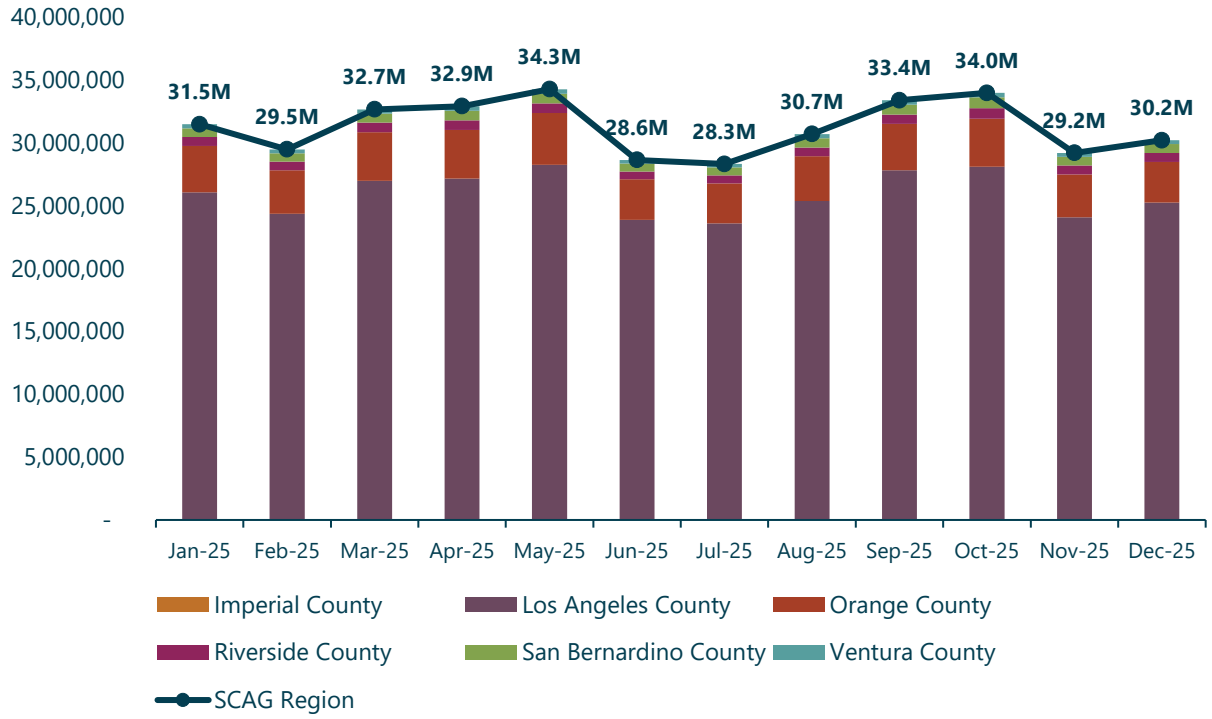


Exhibit 4 presents the month-over-month (MoM) percentage change in bus ridership for the SCAG region from January 2025 to December 2025. Ridership fluctuated significantly over the year, with periods of growth and decline. The largest increases occurred in March 2025 (10.8 percent), August 2025 (8.4 percent), and September 2025 (8.7 percent), while the steepest declines were seen February 2025 (-6.4 percent), June 2025 (-16.4 percent), and November 2025 (-14.1 percent). Bus ridership increased by an average of 0.1 percent month-over-month, with the data showing several sharp increases and decreases rather than a steady trend.

Exhibit 4 Bus Month Over Month Comparison as a Percentage Change, 12 Month Rolling

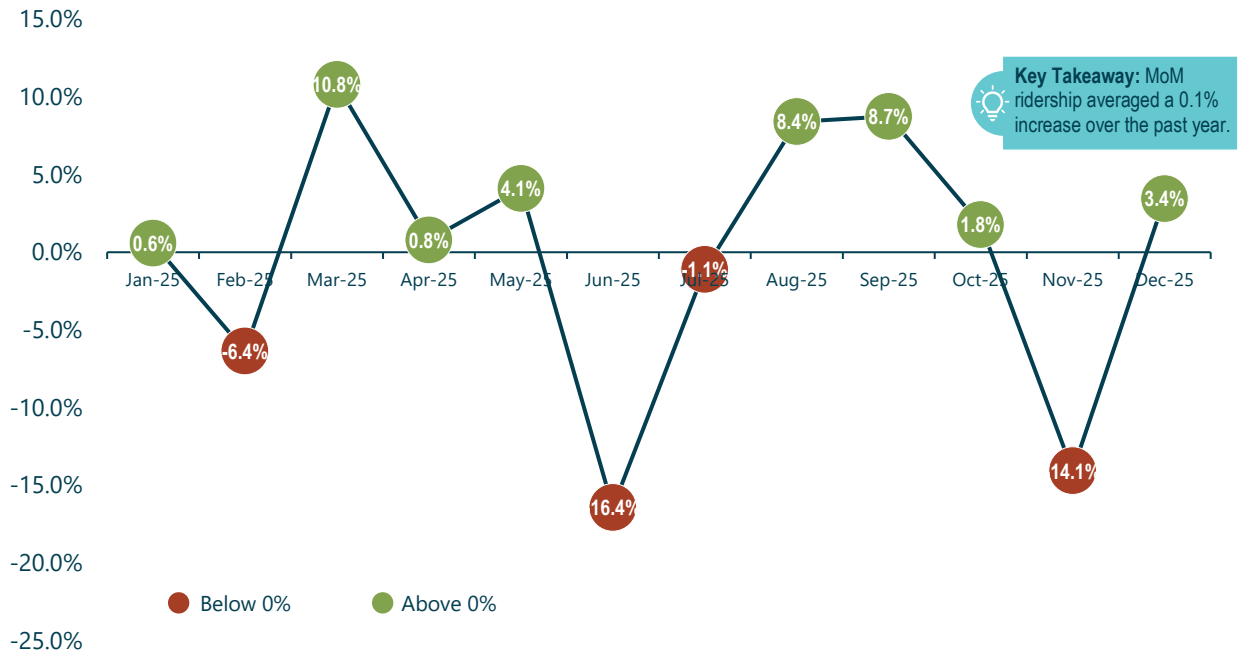
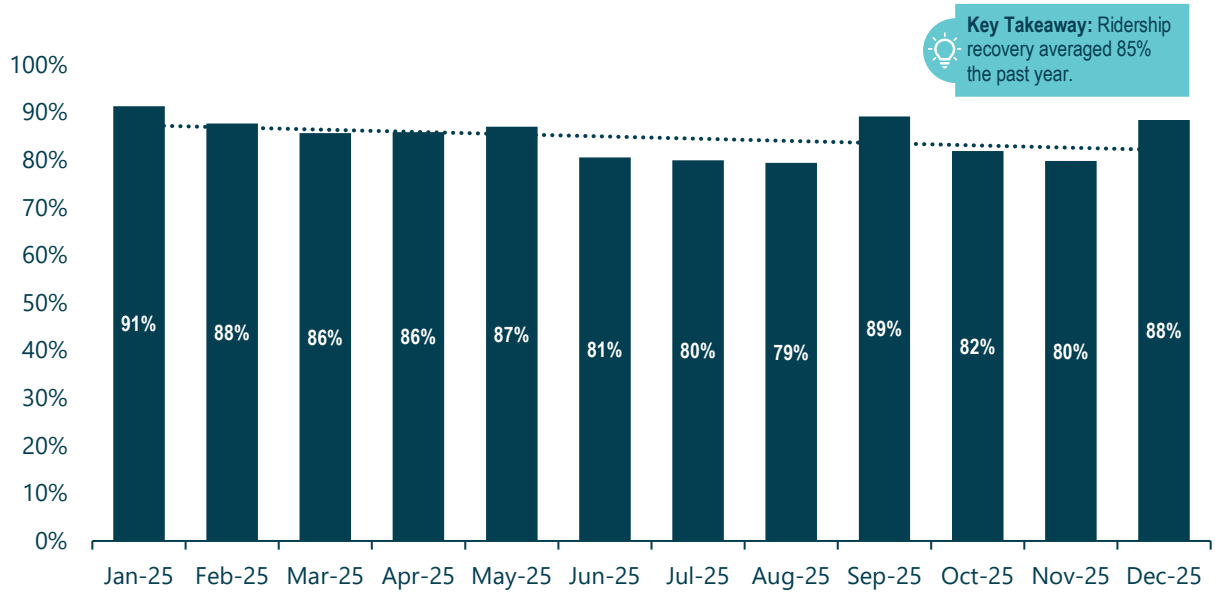


Exhibit 5 Post-Pandemic Bus Ridership Recovery as Percentage of Y 2018-19, 12 Month Rolling



As presented in Exhibit 5, bus ridership recovery during the past 12 months fluctuated between 79 percent and 91 percent of fiscal year 2018-19 levels, with an average recovery rate of 85 percent over the past 12 months. The range reflects a 12-percentage-point spread. The highest recovery was observed in January 2025 (91 percent). Ridership recovery showed a degree of variability, indicating bus ridership remains below full recovery with an overall downward-sloping trend line.

LIGHT AND HEAVY RAIL RIDERSHIP

The SCAG region's rail network features a blend of light and heavy rail services that provide critical connectivity. LA Metro operates the largest light and heavy rail system in Southern California, with a network that has expanded significantly over the past five years through the opening of the K (Pink) Line, the Regional Connector, and the LAX Transit Center which streamlined rail connections between LAX and the region. The system includes light rail lines such as the A (Blue), E (Expo), and C (Green) Lines, as well as the heavy rail B (Red) and D (Purple) subway lines. In San Bernardino County, the Arrow service launched in 2022 as a modern, diesel multiple unit light rail line designed for seamless integration with Metrolink's commuter rail services, extending rail access to the cities of Redlands and San Bernardino. Together, these systems enhance regional mobility, offering frequent urban rail service alongside Metrolink's broader commuter rail network.

DATA SOURCE

SCAG staff sourced transit and rail data from LA Metro's Interactive Estimated Ridership Statistics dashboard, which provides monthly ridership statistics. Arrow Service data was obtained directly from the Southern California Regional Rail Authority (SCRRA).

RAIL RIDERSHIP TRENDS

Light and heavy rail ridership in the SCAG region exhibited notable seasonal fluctuations over the past year, presented in Exhibit 6. Total passenger trips started at a low of 5.3 million in January 2025 before rising slightly in spring to 6.0 million in April 2025. Total passenger trips then dropped to 5.3 million at the start of summer in June 2025 then trips slowly increased month to month until peaking in October 2025 at 6.3 million, but trips declined to 5.8 million in December 2025. These trends suggest that while rail ridership increased from pandemic lows, long-term changes in commuting behavior, such as hybrid and remote work arrangements, as well as shifts in travel patterns and peak demand period travel have contributed to sustained low rail ridership recovery. The overall pattern points to an ongoing challenge in stabilizing and growing light and heavy rail ridership in the post-pandemic context, despite in-office and changes in travel behavior.

Exhibit 6 Light and Heavy Rail Total Passenger Trips, 12 Month Rolling

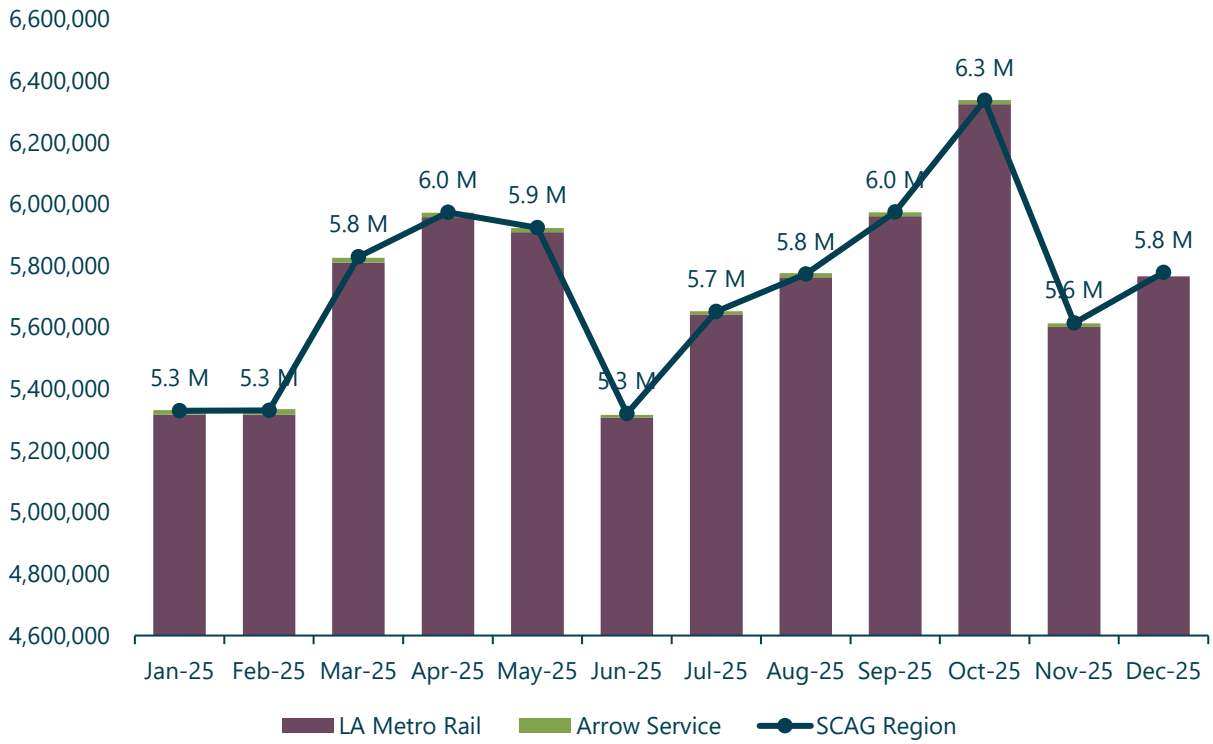
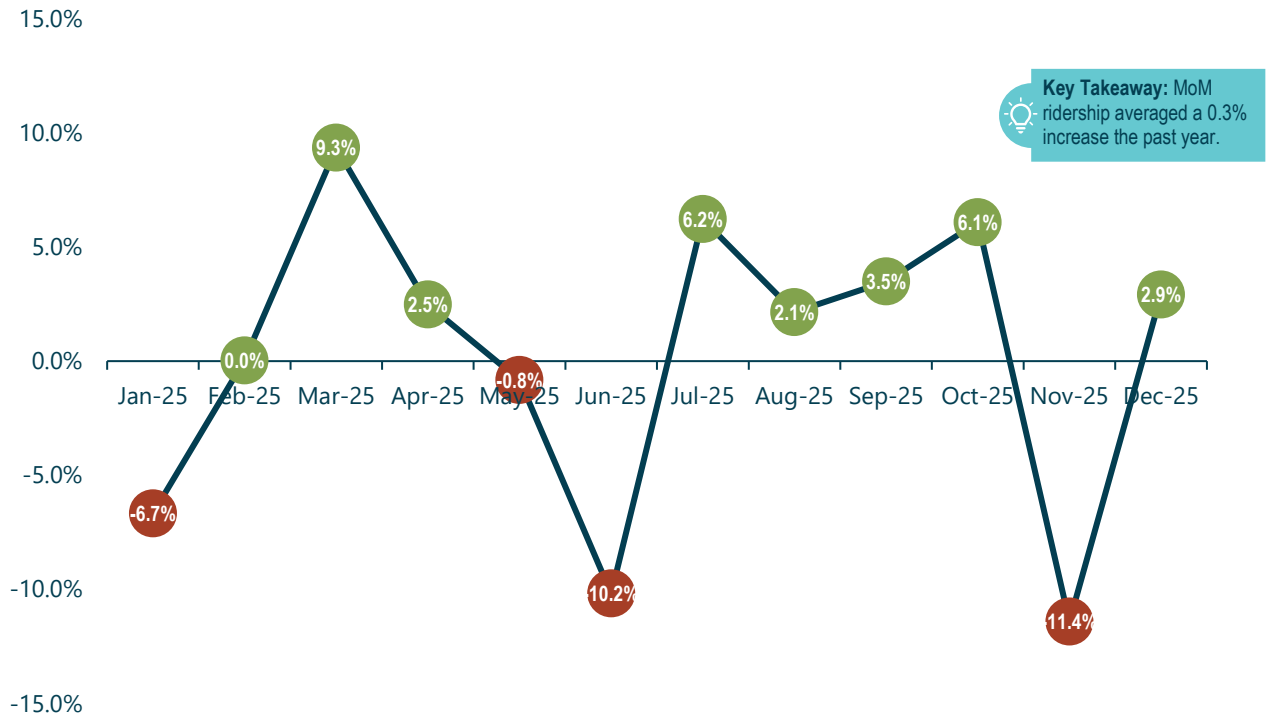


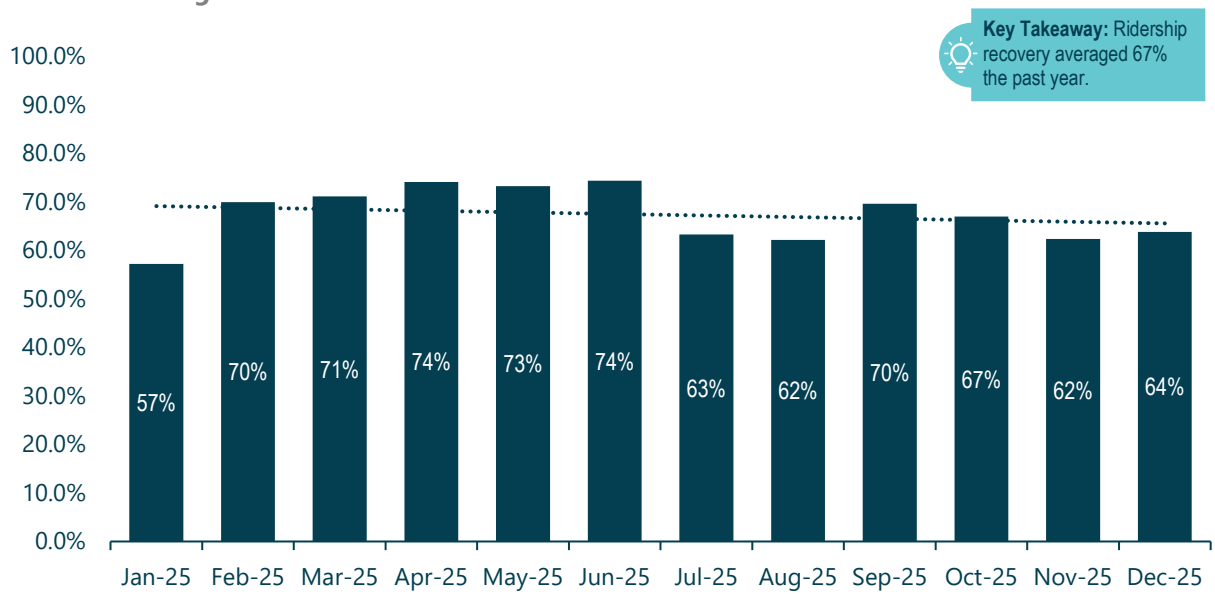
Exhibit 7 illustrates the monthly percentage change in total light and heavy rail ridership in the SCAG region from January 2025 to December 2025. The data highlights the volatility in ridership patterns over the year, with a mix of growth and decline across different months. Similarly, the winter months show reduced ridership, a trend that reflects the holiday season, when daily travel demand typically falls. The most significant positive change occurred in March 2025, with a 9.3 percent increase over the previous month, suggesting a notable spring rebound. In contrast, the largest monthly decline took place in June 2025, dropping 10.2 percent. The sharp decline in June 2025 is likely attributable to the beginning of the summer season, when K-12 schools and universities are out of session, reducing student travel demand. Federal activities and operations in the region might have also affected rail ridership. Importantly, Exhibit 7, underscores that monthly rail ridership changes have been inconsistent, with four out of 12 months showing negative growth, including three months where the decline exceeded six percent. This fluctuation results in a net average increase of 0.3 percent per month over the year.

Exhibit 7 Light and Heavy Rail Month Over Month Comparison as Percentage Change, 12 Month Rolling



As shown in Exhibit 8, light and heavy rail ridership recovery exhibited significant variability throughout the year, ranging from a low of 57 percent in January to a high of 74 percent in both April and June. Recovery strengthened steadily through the spring, reaching the low- to mid-70 percent range, before declining sharply in the summer months to 63 percent in July and 62 percent in August. Recovery tapered again, ending the year at 64 percent in December, reflecting an overall downward trend despite intermittent improvements. The overall trend suggests that rail ridership recovery fluctuates and recent months show slow signs of recovery.

Exhibit 8 Post-Pandemic Light and Heavy Rail Ridership Recovery as Percentage of FY 2018-19, 12 Month Rolling



COMMUTER RAIL RIDERSHIP

Metrolink is Southern California's regional commuter rail system, operating a network of seven lines that span over 540 route miles and connect six counties: Los Angeles, Orange, Riverside, San Bernardino, Ventura, and San Diego (five of which are in the SCAG region). Originally designed to bring suburban commuters into downtown Los Angeles during peak morning and evening hours, Metrolink has recently transitioned toward a "regional rail" service model. This approach emphasizes all-day, bidirectional service, with train frequencies distributed more evenly throughout the morning, midday, and afternoon periods to better accommodate a wider range of travel needs, including off-peak commuting, reverse commutes, and discretionary trips. The shift supports greater regional mobility, reflects changing travel patterns in the post-pandemic era, and serves as a key strategy to capture new riders and support ridership recovery across the system.

DATA SOURCE

Staff obtained monthly rail ridership data, delineated by line, from SCRRA, to evaluate trends in regional rail ridership. Monthly ridership figures for Metrolink were estimated based on ticket sales, utilizing average trip rates.

COMMUTER RAIL RIDERSHIP TRENDS

On October 21, 2024, Metrolink added 32 new weekdays trains, a nearly 23 percent increase in systemwide service, to better accommodate local travel and regional passenger rail by increasing weekday service levels and optimizing connections. The San Bernardino Line received the majority of new weekday trains with 18 while the Orange County Line added seven. On January 27, 2025, Metrolink implemented additional service changes to the San Bernardino line to better manage track capacity issues while retaining service improvements.

Exhibit 9 reflects monthly systemwide ridership across Metrolink's seven commuter rail lines from January 2025 through December 2025. Metrolink ridership began the period at 573,224 trips in January 2025, steadily increasing to a peak of 701,165 in April 2025, before declining through the summer and fall months. The lowest point occurred in December 2025, with 537,151 trips. The decline in December 2025 is likely attributable to the holidays influencing travel demand.

All seven lines contributed to the overall trend, with the Orange County Line and San Bernardino Line consistently making up the largest shares of total ridership. These were followed by the Antelope Valley Line, 91/Perris Valley Line, and the Ventura County Line with the Inland Empire-Orange County Line and Riverside Line contributing smaller portions.

Exhibit 9 Metrolink Commuter Rail Total Passenger Trips, 12 Month Rolling

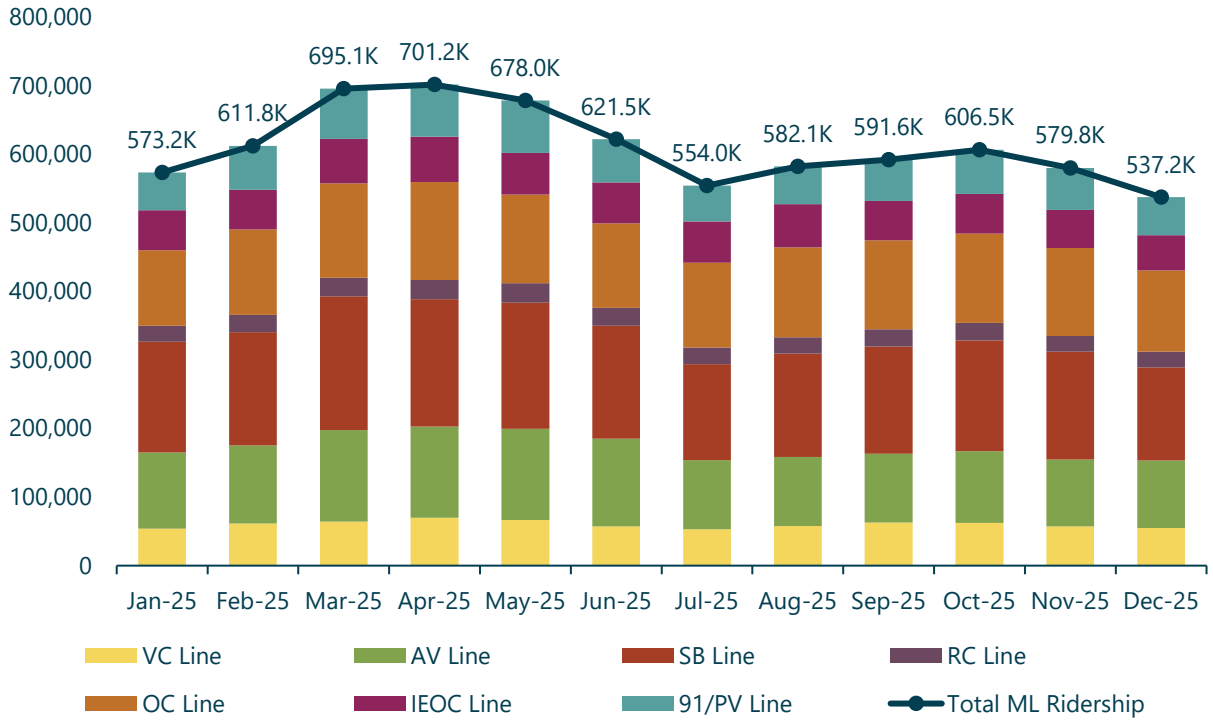


Exhibit 10 displays the month-over-month percentage change in total system ridership from January 2025 to December 2025. The data shows variability across the year, with several months experiencing strong gains, notably March 2025 (13.6 percent). Conversely, July (-10.9 percent) and December (-7.4 percent) marked the most significant declines, aligning with typical seasonal slowdowns due to holidays, school breaks, and vacation periods. The average month-over-month ridership change (-0.3 percent) indicates a general flattening trajectory for Metrolink ridership during the period.

Exhibit 10 Metrolink Month Over Month Comparison as Percentage Change, 12 Month Rolling

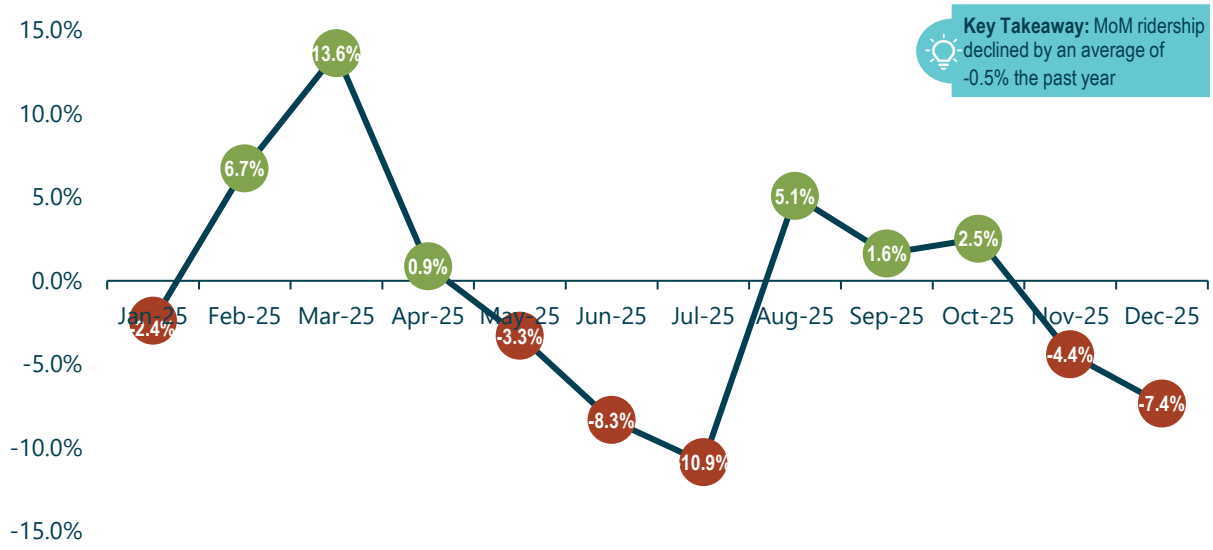


Exhibit 11 Post-Pandemic Metrolink Ridership Recovery as Percentage of Fiscal Year 2018-19, 12 Month Rolling

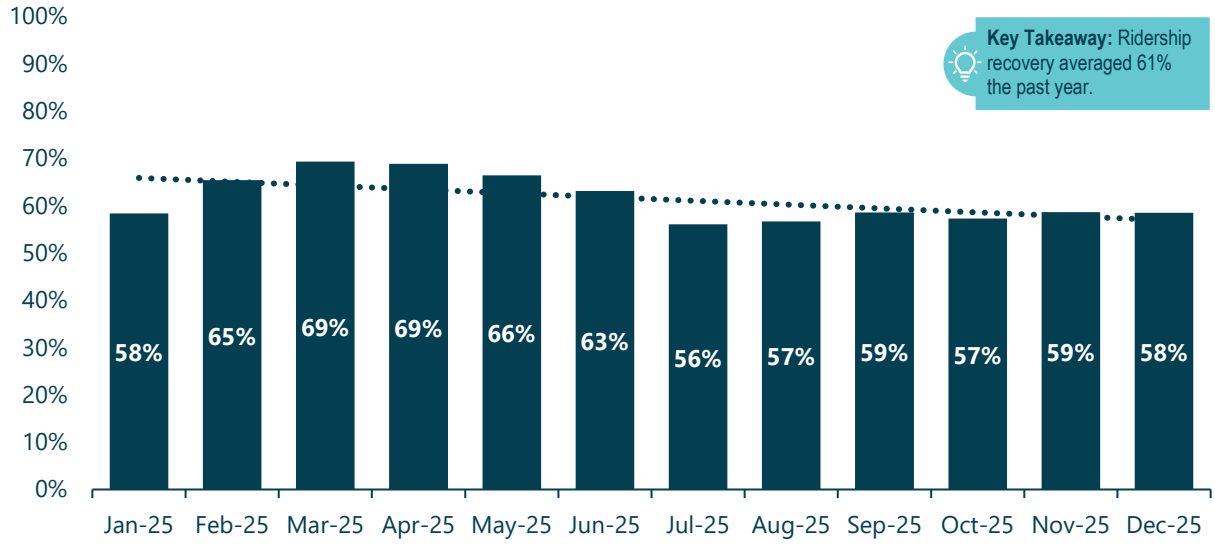


Exhibit 11 presents Metrolink's ridership recovery as a percentage of fiscal year 2018-19 pre-pandemic levels. Over the past year, recovery averaged 61 percent, with a steady climb through spring 2025 to a high of 69 percent in March and April, followed by a dip to 56 percent in July 2025, the lowest point of the year. Recovery reached 58 percent December 2025. This pattern suggests that while significant progress has been made, commuter rail still faces challenges in returning to full pre-pandemic demand, particularly as work-from-home patterns and hybrid commuting continue to reshape ridership behavior.

Vehicular Travel

VEHICULAR VOLUMES

Vehicle miles traveled (VMT) is the total number of miles driven by all vehicles in a specific area over a set time. It shows how much people are traveling by car and can reflect factors like population growth, economic activity, and land use. Higher VMT often means more driving, which can lead to more pollution and wear on roads. Tracking VMT helps policy makers and planners understand road usage, plan maintenance, and achieve changes in how people travel. Vehicle hours of delay (VHD) measures the extra time drivers spend stuck in traffic compared to free-flowing conditions. It shows how bad congestion is and helps identify where improvements like road expansions or traffic signal changes are needed. VHD also reveals the economic impact of traffic delays by showing lost time for drivers and freight. Watching VHD over time helps measure if efforts to reduce congestion are working. The following sections analyze VMT and VHD trends in the SCAG region, covering its six counties.

DATA SOURCE

For this vehicular travel volume assessment, staff used data from the California Performance Measurement System (PeMS). PeMS collects information through sensors placed along the State Highway System. California has nearly 47,000 of these sensors covering over 41,000 miles of highway. In the SCAG region, PeMS uses about 22,000 sensors covering around 7,600 miles of highway. However, PeMS has some limits. It only tracks highways and doesn't include local roads or streets. Also, many sensors can be offline at times due to construction or equipment problems. For the SCAG region, PeMS does not have sensors in Imperial County. Despite these issues, PeMS is still the best available source for current highway travel data. However, since the intention of this report is to provide the most current information, PeMS remains the most appropriate data source available for this analysis.

VEHICLE TRAVEL AND CONGESTION PATTERNS FOLLOWING THE PANDEMIC

VMT experienced a sharp and unprecedented decline in early 2020 due to the COVID-19 pandemic, reaching its lowest point in April 2020. Following this disruption, travel steadily rebounded throughout 2021 and 2022. By early 2023, monthly VMT had returned to pre-pandemic levels. While seasonal dips are still present, such as during winter months or holiday periods, the overall trend has stabilized in recent years. Exhibit 12 shows a consistent trend hovering just below pre-pandemic VMT levels indicating the region's recovery of VMT and new normal level of VMT. Volumes the past year generally fluctuated between 5.4 and 6.1 billion miles. This pattern points to a sustained reliance on personal vehicle travel in the region, even as other modes like transit have experienced slower post-pandemic recovery.

Exhibit 12 VMT in the SCAG Region by Month, 12 Months Rolling

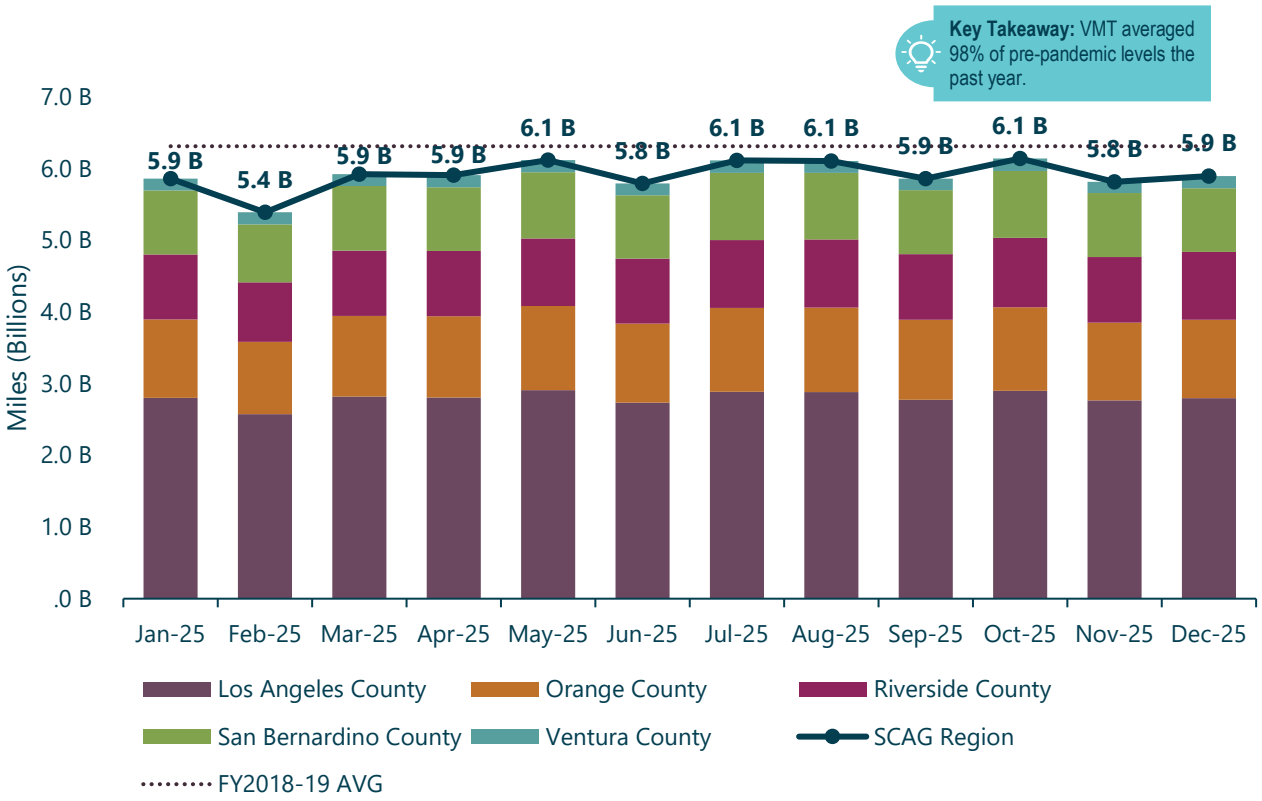
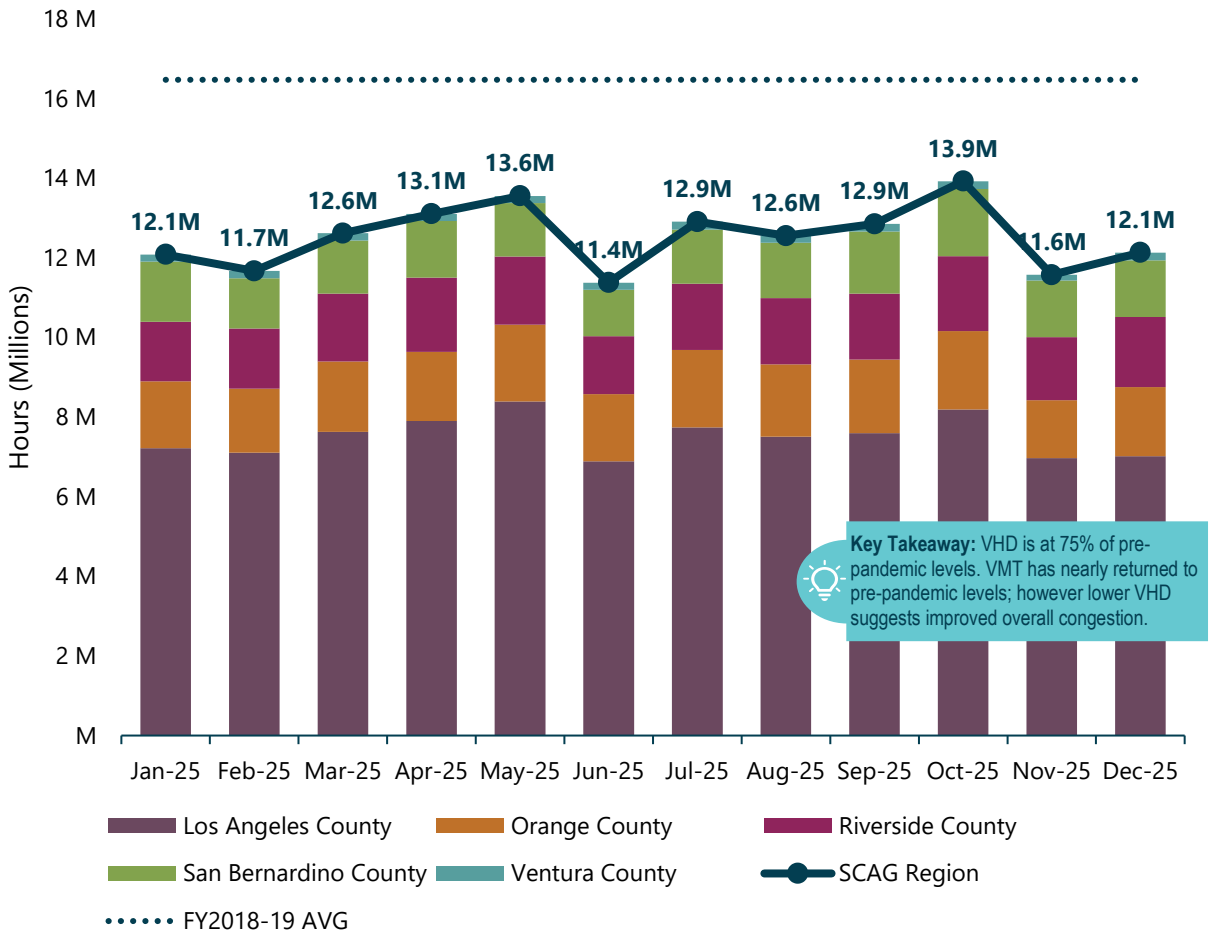


Exhibit 13 presents VHD in the SCAG region from January 2025 through December 2025, offering insight into regional roadway congestion patterns over 2025. Prior to the COVID-19 pandemic, monthly VHD consistently ranged between 16 to 18 million hours, reflecting high levels of traffic congestion across the region. In early 2020, VHD dropped sharply, reaching its lowest point in April 2020, corresponding with widespread shutdowns and reduced travel demand. Following the pandemic-induced low, VHD gradually rebounded throughout late 2020 and 2021, but has not returned to pre-pandemic levels. Since 2022, monthly VHD has generally fluctuated between 11 and 14 million hours, indicating a persistent reduction in regional traffic delay despite the recovery of VMT. In 2025, VHD peaked in October 2025 at 13.9 million. The lowest VHD was recorded in June at 11.4 million, other lows included November at 11.6 million and February at 11.7 million. This pattern points to broader trends that VHD is influenced by hybrid and flexible work schedules that reduce peak commutes.

Exhibit 13 VHD in the SCAG Region by Month, 12 Months Rolling



VHD has only reached 75 percent of pre-pandemic levels, implying that congestion remains significantly lower than before. This sustained reduction in congestion might be partially attributed to long-term changes in commuting behavior, such as hybrid and remote work arrangements, as well as shifts in travel patterns and peak demand periods. **The correlation between high VMT recovery and lagging VHD recovery suggests that while people are back on the road in near-full force, they might be doing so in ways that avoid peak congestion periods, resulting in more efficient roadway performance and lower congestion overall.**

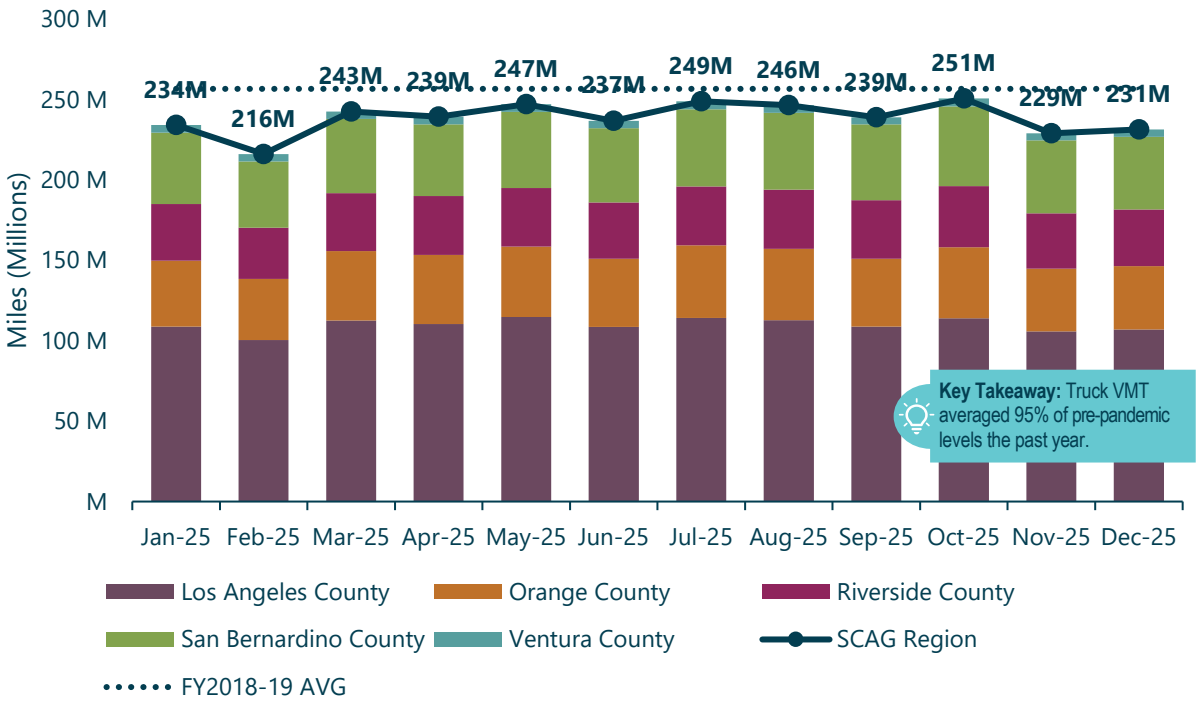
GOODS MOVEMENT & TRUCK VOLUMES

Truck vehicle miles traveled (Truck VMT) is the total number of miles driven by trucks within a specific area (like a city, region, or state). It works the same as overall VMT but focuses only on trucks, which usually means medium-duty and heavy-duty commercial vehicles. Truck VMT is an indication of the following:

- **Freight Movement:** How much goods and cargo are being transported on the road.
- **Economic Activity:** Higher truck VMT often signals more trade, shipping, and industrial activity.
- **Roadway Impact:** Trucks cause more wear on roadways, so truck VMT helps plan for maintenance needs.
- **Air Quality and Emissions:** Since trucks produce more emissions per mile than passenger cars, truck VMT is important for air quality and environmental planning.
- **Traffic Operations:** Helps analyze congestion patterns, especially on freight corridors and near ports, warehouses, and distribution centers.

Prior to the COVID-19 pandemic, truck VMT generally ranged between 240 and 260 million miles per month, reflecting steady freight operations across the region's highways. A noticeable decline occurred in early 2020, with a temporary dip below 210 million miles, coinciding with the early stages of the pandemic and related disruptions in supply chains and economic activity. However, unlike passenger travel, truck VMT rebounded quickly by mid-2020, driven by demand for freight and logistics services, especially in support of e-commerce and essential goods distribution. Since 2021, truck VMT has remained relatively stable but has remained slightly below pre-pandemic levels. Exhibit 14 displays truck VMT in the SCAG region from January 2025 through December 2025; volumes generally fluctuated between 216 and 251 million miles per month. The data suggests that while truck travel was less disrupted and quicker to recover than passenger travel, it has averaged 95 percent of pre-pandemic levels during 2025. Rather than signaling a structural shift in freight patterns or logistics operations, this trend is more likely driven by a slowdown in consumer spending and a normalization of shipping volumes following the pandemic-era surge.

Exhibit 14 Truck Vehicle Miles Traveled in the SCAG Region by Month, 12 Month Rolling



Telework Impacts

REMOTE WORK TRENDS

Analyzing work-from-home trends is essential for understanding shifts in travel demand, as remote work reduces the need for daily commuting and directly impacts traffic volumes and transit ridership. By tracking these patterns, policy makers and planners can better assess changes in peak-hour congestion and forecast long-term impacts on transportation infrastructure and funding needs. Work-from-home trends also provide insights into evolving travel behavior, helping agencies plan for a more flexible and resilient transportation network.

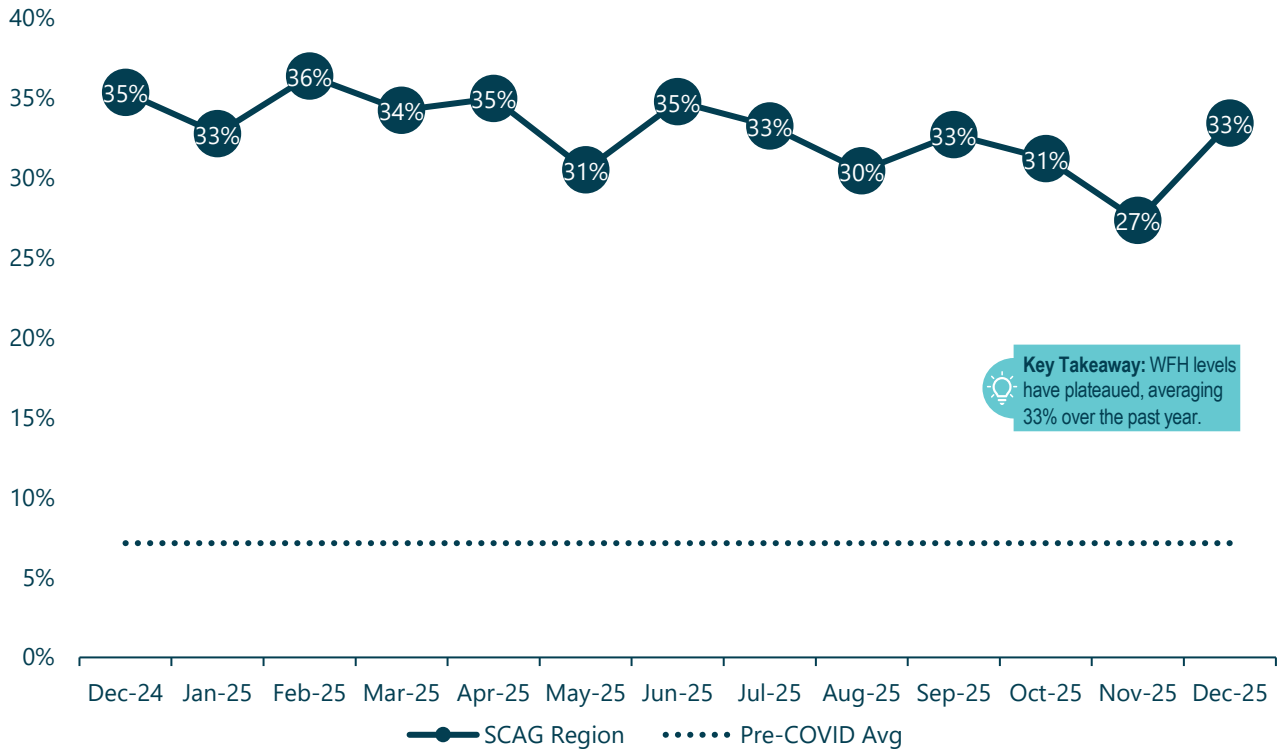
DATA SOURCE

SCAG staff used data from the Survey of Working Attitudes and Arrangements (SWAA) by WFH Research, which collects monthly online responses from adults nationwide, including the Los Angeles Combined Statistical Area (LA CSA). To correct for overrepresentation of college-educated individuals, staff reweighted the sample using iterative proportional fitting to better match the region's age, sex, and education levels based on the 2022 American Community Survey (ACS). While the reweighted sample now more closely reflects the age and education distribution found in the ACS, it still underrepresents people without a high school degree and those with some college education. Nonetheless, the work-from-home rates across subgroups without a college degree are expected to show minimal differences.

OVERALL WORK FROM HOME TRENDS

The onset of the COVID-19 pandemic in March 2020 led to a significant increase in the rate of remote work, replacing traditional commutes to fixed work sites. However, recent data indicates a modest decline in the frequency of remote workdays, attributed to the adoption of hybrid schedules by many office workers. This trend is illustrated in Exhibit 15, which shows the monthly percentage of full, paid working days spent at home in the re-weighted LA CSA sample, representing the SCAG region. Based on current SWAA data, from January 2025 to December 2025, the percentage of full, paid working days spent at home in the SCAG region ranged between 27 percent and 36 percent, with an annual average of 33 percent.

Exhibit 15 Monthly Percentage of Full, Paid Working Days at Home, SCAG Region



*We estimate the pre-COVID rate using the 2019 American Time Use Survey.
* The microdata retrieved from www.wfhresearch.com is re-weighted to be representative of the Los Angeles Combined Statistical Area.

Conclusion

The SCAG region's travel patterns reflect an ongoing but uneven recovery. Bus, light and heavy rail, and commuter rail ridership are steadily climbing, but remain below pre-pandemic ridership levels. Roadway volumes are close to rebounding, yet congestion levels remain lower, reflecting lasting impacts of remote work and evolving commute habits. The persistence of hybrid work models continues to reshape travel demand, easing congestion and moderating peak-period transit use. Truck activity also shows volumes are returning to pre-pandemic levels.

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California Department of Transportation. (2025**).** *Performance Measurement System (PeMS).* https://pems.dot.ca.gov/

Barrero, Jose Maria, Nicholas Bloom, and Steven J. Davis, 2021. "Why working from home will stick," National Bureau of Economic Research Working Paper 28731. https://wfhresearch.com/

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REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.3
April 29, 2025

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Alexis Murillo Felix, Senior Regional Planner,
213-630-1461, felix@scag.ca.gov

Subject: High-Quality Transit Corridors Interactive Map Update

SUMMARY:

From: https://hub.scag.ca.gov/datasets/d4feb4ee0e5444ed98e41eb0fe33d480

Assembly Bills (AB) 2097 and 2553 required updates to SCAG's methodology and corresponding digital mapping tool, the High-Quality Transit Corridor (HQTC) Interactive Map. AB 2097 prohibits local governments from imposing minimum parking requirements on developments located within a half mile of public transit. The goal is to reduce reliance on cars, lower housing costs, and encourage transit-oriented development (TOD) by eliminating costly parking mandates. The legislation applies to residential, commercial, and other developments within a half mile of a major transit stop. The California Department of Housing and Community Development's (HCD) released its Technical Advisory on the Implementation of AB 2097, providing guidance on how these provisions should be applied. In addition, AB 2553 modified the definition of a Major Transit Stop (MTS), expanding eligibility to include more frequent bus intersections, rail stations, and ferry terminals, and adjusting the peak-period service frequency threshold from 15 to 20 minutes. HCD's Technical Advisory incorporates these changes, offering a consistent statewide interpretation of statutes governing HQTCs and MTS.

To comply with these updates, SCAG revised its GIS datasets and web-based HQTC mapping tools. Key modifications include adding eligible Amtrak stations and ferry terminals, incorporating the new 20-minute frequency threshold for MTS as established by AB 2553, and updating datasets to align with HCD guidance while maintaining the existing 15-minute peak service frequency standard for HQTCs, which remains unchanged under current statute. The revised datasets and interactive maps are available for regional partners and transit agencies as of March 2026.

SCAG staff will be initiating the 2028 Connect SoCal HQTC/MTS update in May 2026. A key early priority will be outreach and collaboration, including scheduling one-on-one coordination meetings with transit agencies and county transportation commissions between mid-August and late September, to review draft networks and gather input. These summer coordination meetings will help ensure agency alignment, refine assumptions, and inform subsequent updates to both the 2024 base year and future horizon networks.

REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.4
April 29, 2026

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Priscilla Freduah-Agyemang, Senior Regional Planner, 213-237-1973, agyemang@scag.ca.gov

Subject: Transit and Intercity Rail Capital Program (TIRCP) Cycle 8 Final Guidelines and Call for Projects

SUMMARY:

From: https://calsta.ca.gov/subject-areas/transit-intercity-rail-capital-prog

The California State Transportation Agency (CalSTA) has released the final guidelines and call for projects for the 2026 Transit and Intercity Rail Capital Program (TIRCP) Cycle 8. The 2026 TIRCP grant cycle will fund projects beginning in the 2026-27 fiscal year and ending with the 2030-31 fiscal year. The new program cycle will include previously awarded and active projects that have not been fully allocated by the end of the 2025-26 fiscal year, as well as projects selected from Cycle 8. A total fund estimate of at least $950 million is available for award in Cycle 8.

TIRCP applicants are required to use the California Air Resources Board (CARB) quantification methodology and calculator tool in their applications. TIRCP and CARB will host a virtual workshop on the CARB quantification methodology and calculator tool to estimate the benefits of proposed projects on Thursday, April 30 at 1:00 P.M. The webinar will be recorded and shared for participants who cannot attend.

Applications must be submitted no later than 5:00 P.M. on Monday May 18, 2026. CalSTA expects to announce project awards no later than September 18, 2026. Additional information is available on the CalSTA website.

REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.5
April 29, 2026

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Priscilla Freduah-Agyemang, Senior Regional Planner, 213-237-1973, agyemang@scag.ca.gov

Subject: Mobile Source Air Production Review Committee (MRSC) Zero-Emission Transit Bus Incentive Program

SUMMARY:

From: https://www.cleantransportationfunding.org/requests-for-proposal/2026/zero-emission-transit-bus-incentive-program

In March 2026, the Mobile Source Air Production Review Committee (MRSC) announced the Zero-Emission Transit Bus Incentive Program. The program is designed to incentivize public transit agencies that commit to procuring qualifying zero-emission transit buses in the near term. Eligible applicants for the program include large and small public transit agencies subject to the Innovative Clean Transit Regulation.

The MRSC has allocated a total of $25 million in Clean Transportation Funding for the Program. Project applications will be accepted electronically via the MSRC website from May 1, 2026, through 5:00 p.m. on June 30, 2026. Large transit agencies are eligible for a maximum funding award up to $3 million and small transit agencies are eligible for a maximum funding award up to $1 million.

Incentives will be awarded on a first-come, first-served basis to eligible projects that meet all program requirements. Funds may be fully committed prior to the June 30, 2026, deadline; therefore, funding availability is not guaranteed through the end of the application period.

REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.6
April 29, 2026

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Priscilla Freduah-Agyemang, Senior Regional Planner,
213-237-1973, agyemang@scag.ca.gov

Subject: FY 2026 Notice of Funding Opportunity: All Stations Accessibility Program

SUMMARY:

From: https://www.transit.dot.gov/notices-funding/fy-2026-notice-funding-opportunity-all-stations-accessibility-program

In March 2026, the Federal Transit Administration announced the opportunity to apply for $686 million in competitive grants for the Fiscal Year (FY) 2026 All Stations Accessibility Program (ASAP). The program supports transit agencies in retrofitting legacy rail systems to improve accessibility for people with disabilities, including those who use wheelchairs.

Eligible activities include planning and capital projects to upgrade the accessibility of legacy rail public transportation systems for people with disabilities. Additionally, only legacy stations or passenger facilities that existed before enactment of the ADA and have not yet been made accessible are eligible for funding.

Project proposals must be submitted through www.grants.gov by 11:59 p.m. EST on May 1, 2026.

REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.7
April 29, 2026

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Priscilla Freduah-Agyemang, Senior Regional Planner, 213-237-1973, agyemang@scag.ca.gov

Subject: METRO Ready SetGo Special Event Transportation Industry Playbook

SUMMARY:

From: https://www.dropbox.com/scl/fi/d76vdftc2mpf3xsg6eqtq/LAMetro-SETGO_Industry-Playbook_2025_09122025.pdf?rlkey=60yxh4h7djizqymmpd62tihap&e=2&st=zuyxa4w6&raw=1

The Los Angeles County Metropolitan Transportation Authority (METRO) recently released the Special Event Transportation – Guidance and Opportunities (SETGo) Playbook. The Playbook is a comprehensive resource that outlines best practices for transit agencies of all sizes to deliver transportation for major sports, entertainment and cultural events. Through lessons from mega sporting events, political conventions, and mega concerts, Metro identifies transit service strategies for upcoming international-scale events in the U.S., including the FIFA World Cup 2026™, the Los Angeles 2028 Olympic and Paralympic Games and the Utah 2034 Olympic and Paralympic Winter Games. The Playbook compiles knowledge from agencies nationwide promoting consistency across the country through five key focus areas: Purpose & Need, Service Plan, Safety & Emergency Management, Customer Experience, and Agency-Wide Success Strategies. The Playbook was developed through Metro's SetGo Program, a national workshop series conducted with the American Public Transportation Authority (APTA).

REPORT

Southern California Association of Governments
900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017
Agenda Item No. 4.8
April 29, 2026

To: Regional Transit Technical Advisory Committee (RTTAC)

From: Priscilla Freduah-Agyemang, Senior Regional Planner,
213-237-1973, agyemang@scag.ca.gov

Subject: Uber Transit Innovation Fund

SUMMARY:

From: https://www.uber.com/us/en/transit/innovation-fund/

Uber Transit has announced the Uber Transit Innovation Fund, a $1 million initiative designed to help agencies, municipalities, and regional authorities pilot innovative on-demand mobility solutions. The fund will award up to $50,000 to 20 or more agencies across the US. The funding is intended to assist organizations in reducing costs, expanding access, and improving rider experience without requiring large capital expenditures.

The Uber Transit Innovation Fund is open to both prospective and existing Uber Transit partners. However, existing partners are only eligible if funds will be used to launch a new program or use case. Additional requirements include 10% funding match from the applicant and full expenditure of funds by December 31, 2026.

Applications are due by June 30, 2026, for priority consideration. Uber Transit will continue to review applications on a rolling basis and award funding until all funds are allocated.

CAMBRIDGE SYSTEMATICS

Think Forward

TransAM Overview

presented to

SCAG Region Transit Operators

presented by

Cambridge Systematics, Inc.

April 29, 2026

What is TransAM?

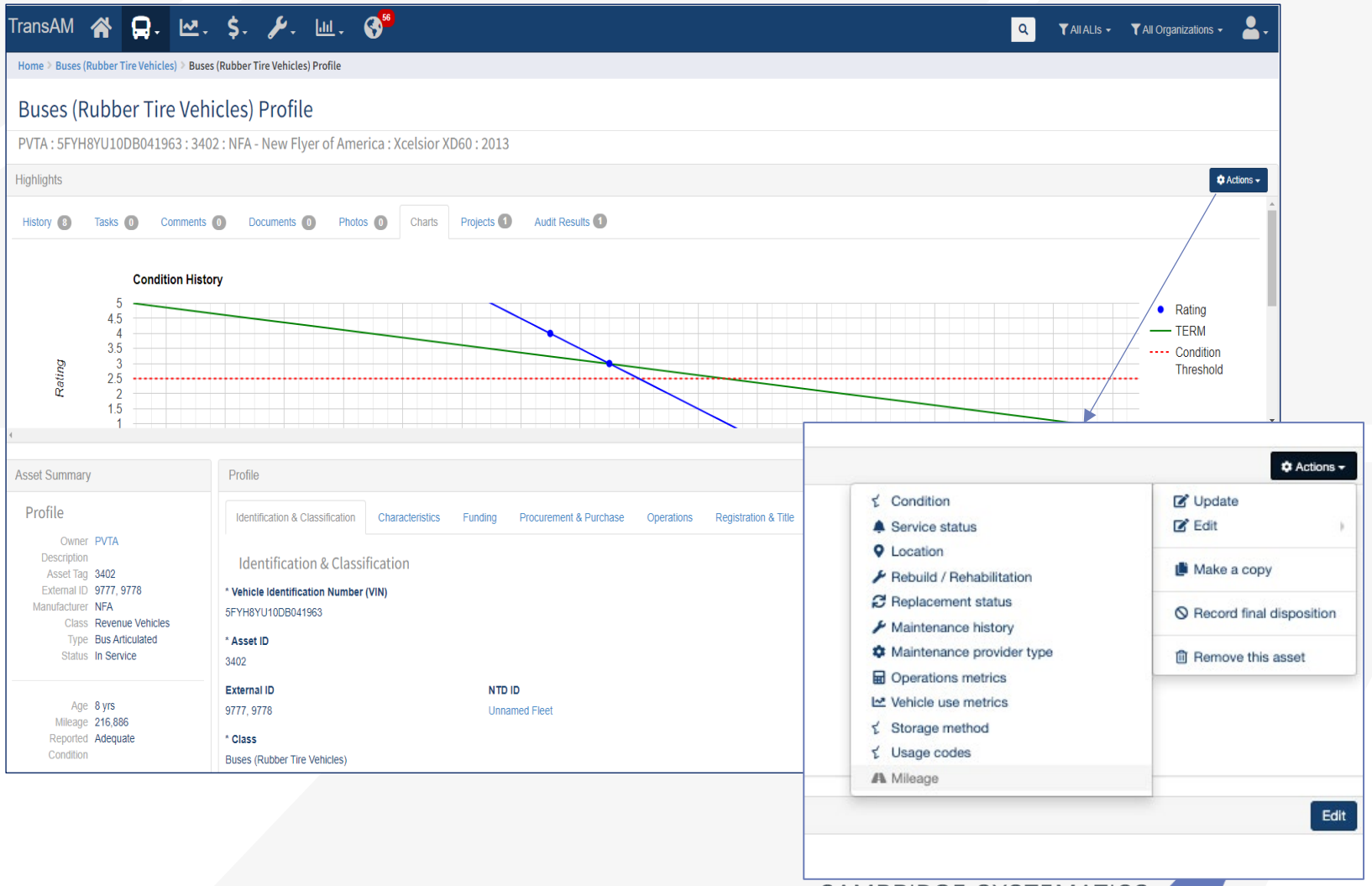
TransAM is an open-source software solution that allows users to aggregate asset data in one centralized location, track asset performance, streamline the capital project planning process, and generate key federally required reports such as NTD.

- Provides historical data for all of your assets in one location
  - Full life cycle information is available for active and disposed assets
  - Access, update and maintain information about your agency's asset inventory in a centralized location
- Allows you to quickly provide SCAG the data necessary for their TAM update Process
- **Support NTD reporting efforts**
  - Assist with A-15, A-20, A-30, A-35 and A-90 forms
- Track grants, funding programs, budgets and their impact on assets and projects
  - Schedule asset replacement based on your agency's business rules
- Customizable reports and table views formatted to meet your agency's specific needs

TransAM Features

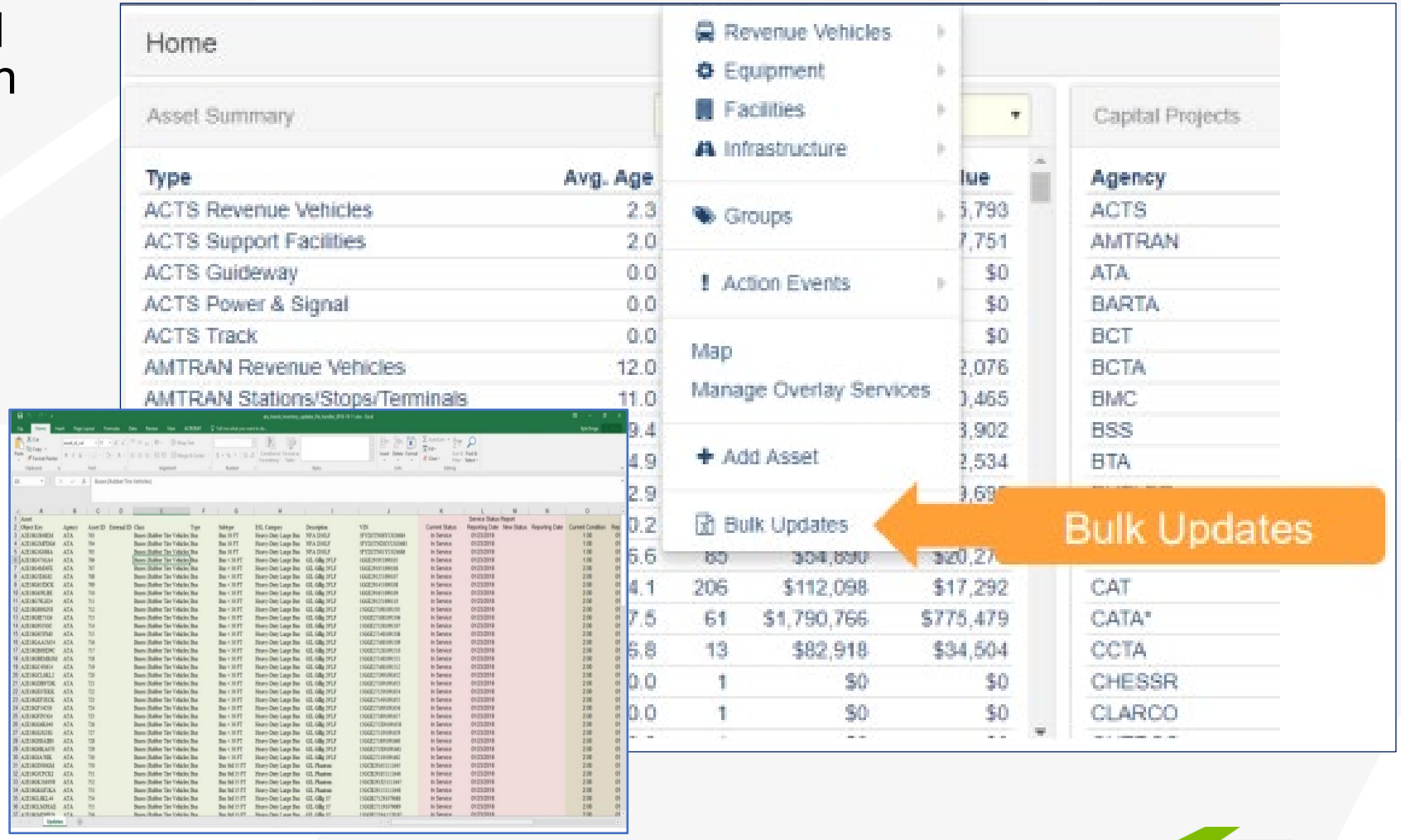
Asset Inventory: Lifecycle Management

- Track asset life-cycle events from acquisition to disposition
- Monitor asset performance over time
  - Mileage
  - Condition
  - Status
  - Maintenance History
- Maintain asset related comments, photos, and documentation



Bulk Updates Templates

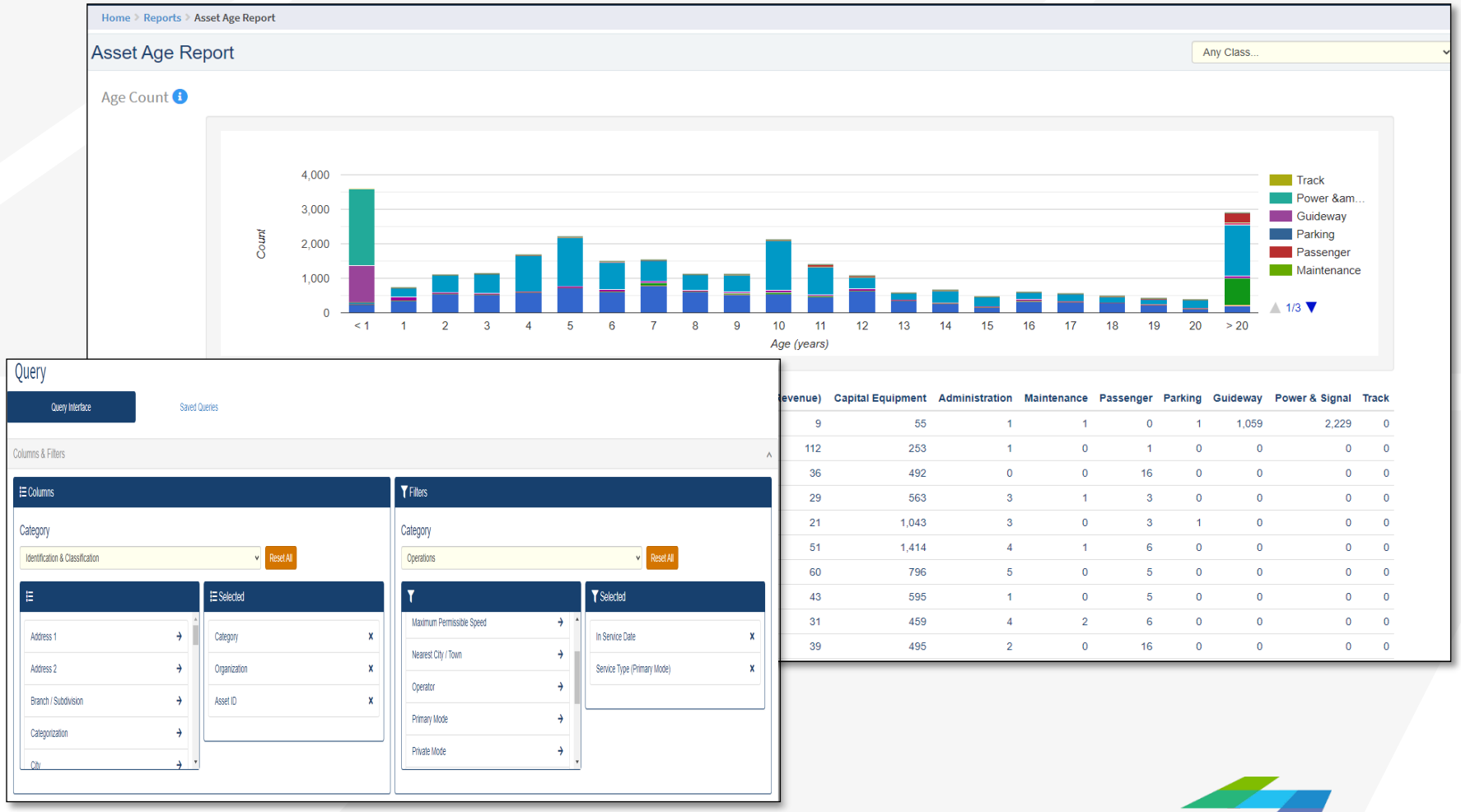
- Faster way to create and edit asset inventory when working with large quantities of assets
- Individual templates for the following updates:
  - New Inventory
  - Inventory Updates
  - Maintenance Performed
  - Disposition Updates
- View all historical bulk updates that have been performed within your agency



CAMBRIDGE SYSTEMATICS

Reporting: Custom & Pre-formatted

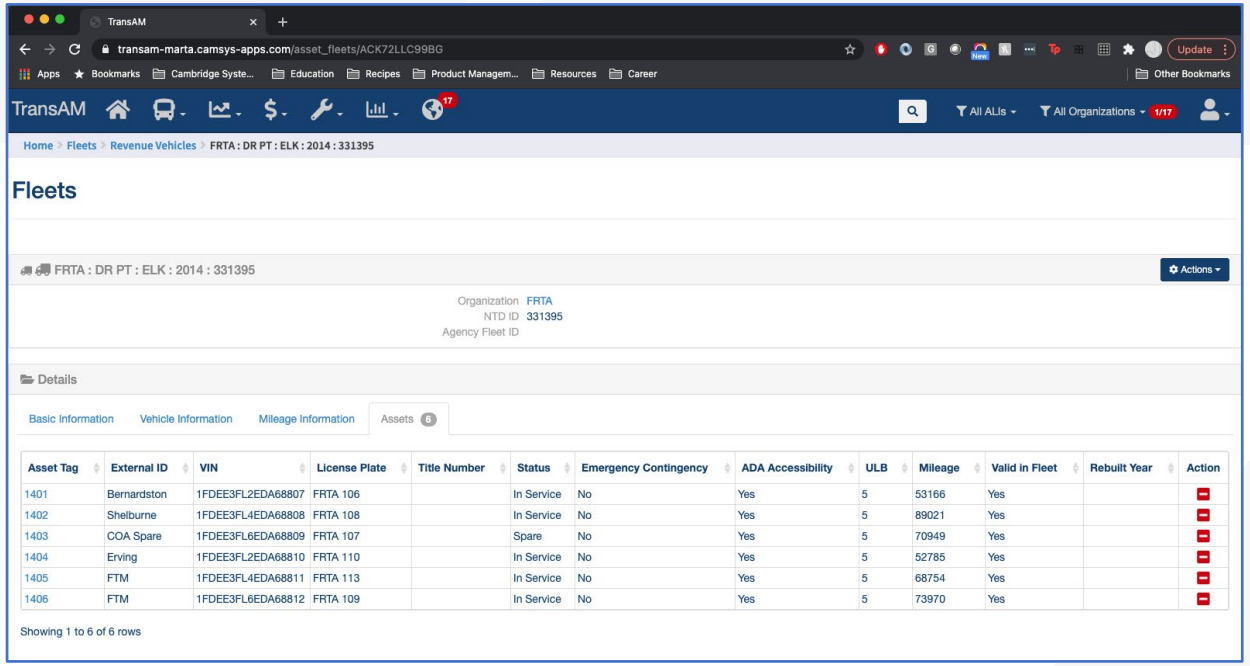
- Query tool allows users to build, save, and share custom data exports
- A variety of preconfigured reports can be generated, ranging in topic areas from Inventory to Capital Needs, System Reports, and Planning
- Reports can be exported into multiple file formats for distribution or further analysis.

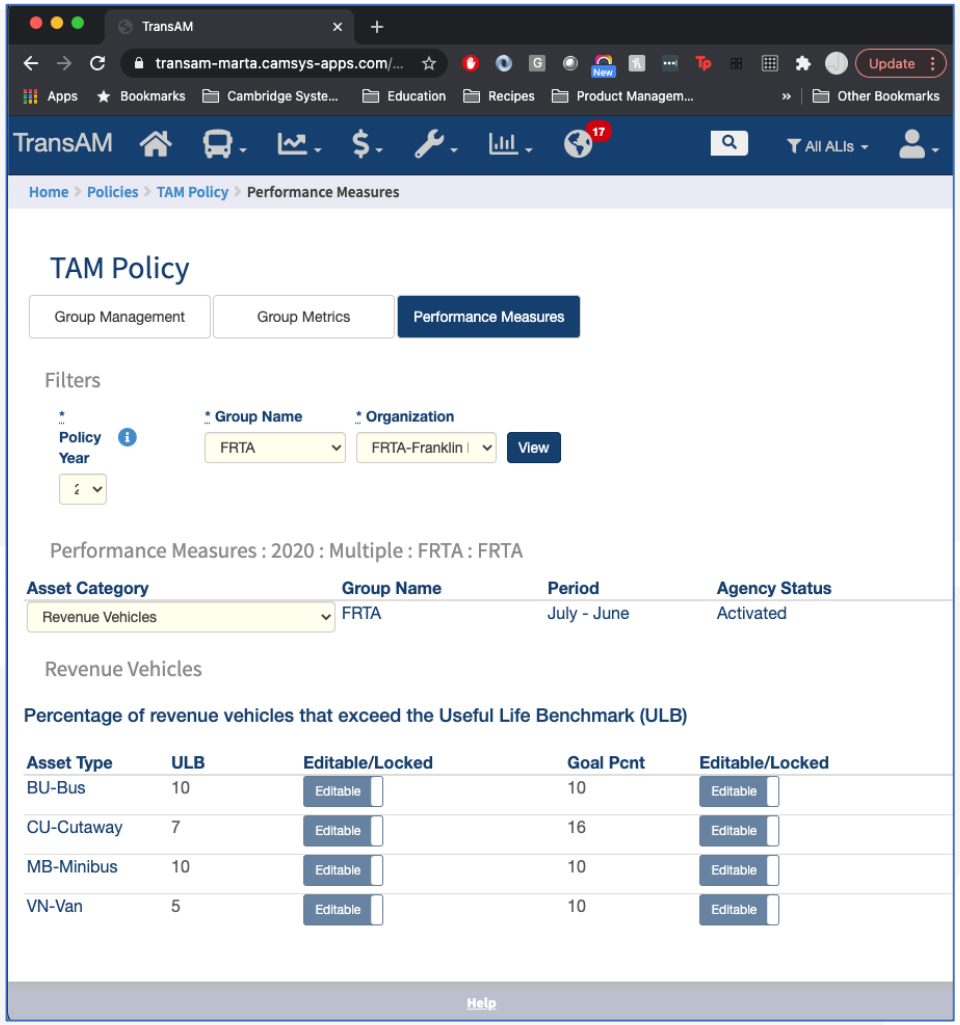


CAMBRIDGE SYSTEMATICS

NTD: Asset and Fleet Management

- Asset profiles capture data attributes required for NTD
- System roll-up of vehicles into fleets
- TAM policy tracks ULB's and Targets
- Generate Excel templates that mirror the format of NTD Asset Inventory Reports

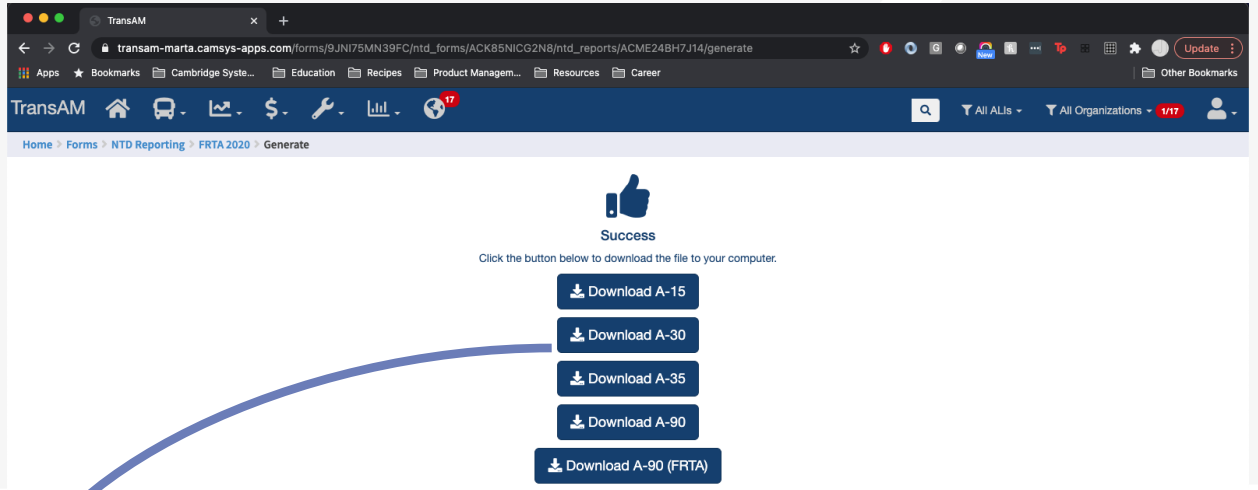


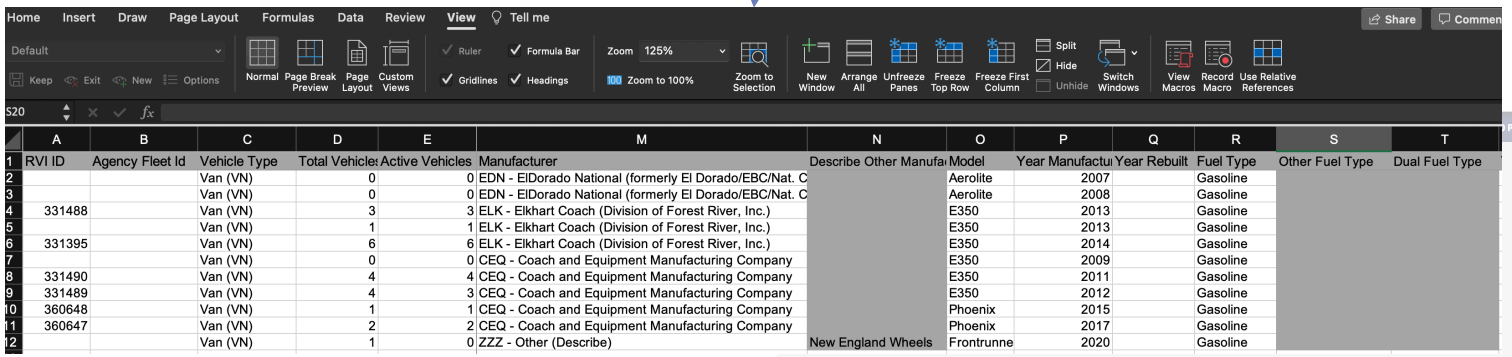


CAMBRIDGE SYSTEMATICS

NTD: Automated Asset Inventory Reports

- Generate excel templates that mirror the format of NTD Asset Inventory Reports
  - A-30 (Revenue Vehicles)
  - A-35 (Service Vehicles)
  - A-15 (Facilities)
  - A-20 (Infrastructure)
  - A-90 (Performance)





	A	B	C	D	E	M	N	O	P	Q	R	S	T
1	RVI ID	Agency Fleet Id	Vehicle Type	Total Vehicles	Active Vehicles	Manufacturer	Describe Other Manufa	Model	Year Manufactu	Year Rebuilt	Fuel Type	Other Fuel Type	Dual Fuel Type
2			Van (VN)	0	0	EDN - ElDorado National (formerly El Dorado/EBC/Nat. C		Aerolite	2007		Gasoline		
3			Van (VN)	0	0	EDN - ElDorado National (formerly El Dorado/EBC/Nat. C		Aerolite	2008		Gasoline		
4	331488		Van (VN)	3	3	ELK - Elkhart Coach (Division of Forest River, Inc.)		E350	2013		Gasoline		
5			Van (VN)	1	1	ELK - Elkhart Coach (Division of Forest River, Inc.)		E350	2013		Gasoline		
6	331395		Van (VN)	6	6	ELK - Elkhart Coach (Division of Forest River, Inc.)		E350	2014		Gasoline		
7			Van (VN)	0	0	CEQ - Coach and Equipment Manufacturing Company		E350	2009		Gasoline		
8	331490		Van (VN)	4	4	CEQ - Coach and Equipment Manufacturing Company		E350	2011		Gasoline		
9	331489		Van (VN)	4	3	CEQ - Coach and Equipment Manufacturing Company		E350	2012		Gasoline		
10	360648		Van (VN)	1	1	CEQ - Coach and Equipment Manufacturing Company		Phoenix	2015		Gasoline		
11	360647		Van (VN)	2	2	CEQ - Coach and Equipment Manufacturing Company		Phoenix	2017		Gasoline		
12			Van (VN)	1	0	ZZZ - Other (Describe)	New England Wheels	Frontrunne	2020		Gasoline		

CAMBRIDGE SYSTEMATICS

NTD Reporting: Benefits

Benefits of utilizing TransAM for NTD Reporting:

NTD reports are automatically generated and pre-formatted for seamless entry into FTA's NTD database.

TransAM's platform has the ability to auto-create all asset-based calculations for the A-15, A-20, A-30, A-35 and A-90 forms.

TransAM's system-based data dictionary ensures all TransAM assets are saved according to the asset hierarchy used for NTD reporting.

NTD reports that have been previously generated within TransAM can be accessed & viewed retroactively.

Questions?

- Laura O'Neill, TransAM Product Manager
  loneill@camsys.com

- Priscilla Freduah-Agyemang, SCAG Project Manager
  agyemang@scag.ca.gov

- Karl Fielding, Planning Supervisor
  fielding@scag.ca.gov

Mobility Wallet

April 2026

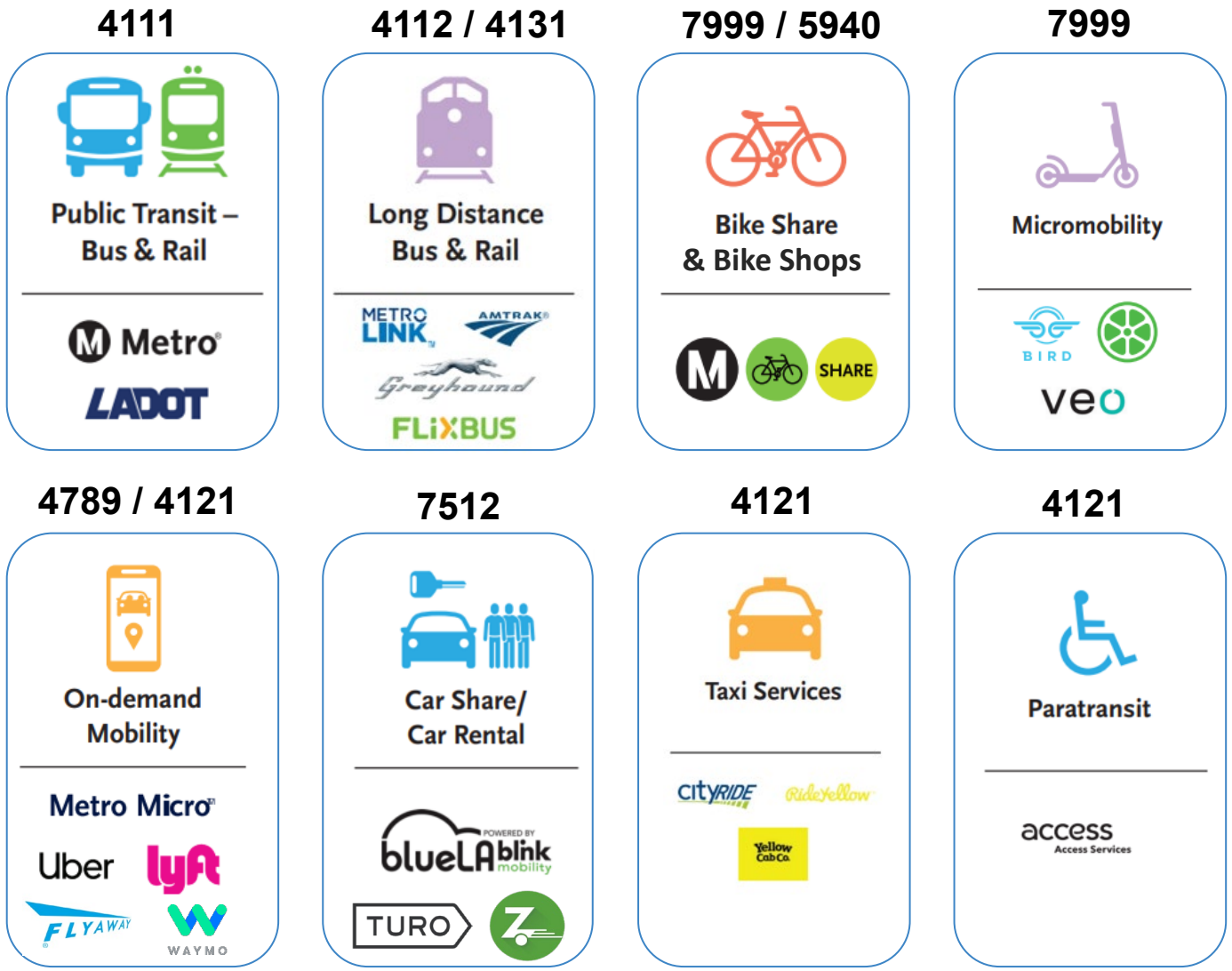
What it is & How It Works

one card, many modes

Mobility Wallet – What it is & How It Works

one card, many modes

Program participants can use the $1,800 for **approved transportation modes** limited by Merchant Category Codes.



Mobility Wallet – What it is & How It Works

one card, many modes

The pilot provided $1800 over a year that could be spent on shared transportation

Eligibility: 18+ LIFE income-qualified LA County residents

Phase 1: 1,000 low-income residents in South LA
Phase 2: 2,000 low-income residents in South LA & Countywide

Physical Card

Virtual Card

Metro CALIFORNIA AIR RESOURCES BOARD LADOT SCAG SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

Mobility Wallet

Funding To Date

*Current estimates using $1800 wallets. With *$900 or smaller wallets we could deliver double or triple the wallets in phase III.*
** CRP availability is uncertain due to the absence of an executed agreement between FHWA and Caltrans.

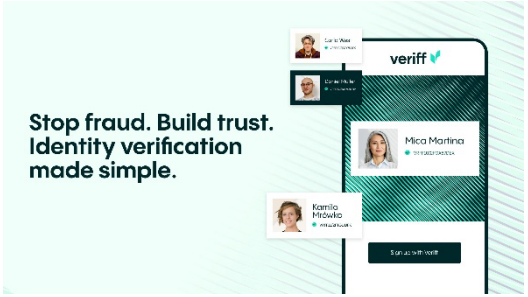
Funding Source	Funder	Grantee	$ Millions (M)	Total Wallets	Grant Expires	Phase	Wallet Disbursement
City of LA Funds Grant	LA City	Sub-Grantee	~ $2 Mil	1,000	Originally Dec 2024, got an extension to Dec 2025	1 & 2	Ph. 1 Monthly Ph. 2 Lump Sum
CARB STEP Grant	State of CA	City of LA	~ $2 Mil	1,000			
REAP 2.0	State of CA / SCAG	Metro	~ $2 Mil	1,000	Originally June 2026, extended to December 2026	2	Lum Sum
Advanced Transportation Technologies and Innovative Mobility Deployment (ATTAIN)	FHWA	Caltrans (Metro is a sub-grantee)	$4.7 M	2,000	Dec 2028	3	TBD
Congestion Relief Program (CRP) **	FHWA	Caltrans (Metro is a sub-grantee)	$4.5 M	2,000	2029	3	TBD
CMAQ (Obligated)	FHWA (through SCAG)	Metro	$10 M	5, 000	2029	3	TBD
CMAQ – (Contingent – Not Awarded)	FHWA (through SCAG)	Metro	$20 M	10,000	TBD		TBD
Awarded			**$ 25.2 M**	**12K***			
Applied / To be determined			**$45.2 M**	**22K***			

Timeline: Card Issuance Procurements

Open Loop Payments Launch

Sourcewell Cooperative Procurement

Submittable



+

cal-itp/**eligibility-server**

Server implementation of the Eligibility Verification API

CAL ITP

2026

2027

LA Metro RFP Released
April 2026

New Card RFP
Award Contract
by October 2026

Fall Recruitment

Phase 3

10,000 – 20,000 Wallets – Countywide + Emergency Wallets
ATTAIN, CMAQ and CRP Funds (TBD)

Timeline

2025

Sourcewell Cooperative Procurement

2026

Open Loop Payments Launch

New Card RFP
Award Contract by Fall 2026

2026 FIFA WC

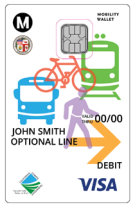
Submittable

2027

TAP Account Based System Launch

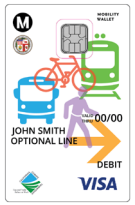
2028

LA28 Olympic and Paralympic Games



Phase 2

2000 Wallets – Countywide + Emergency Wallets
$2 Mil SCAG REAP 2.0 &
$2 Mil City of LA $



Phase 3

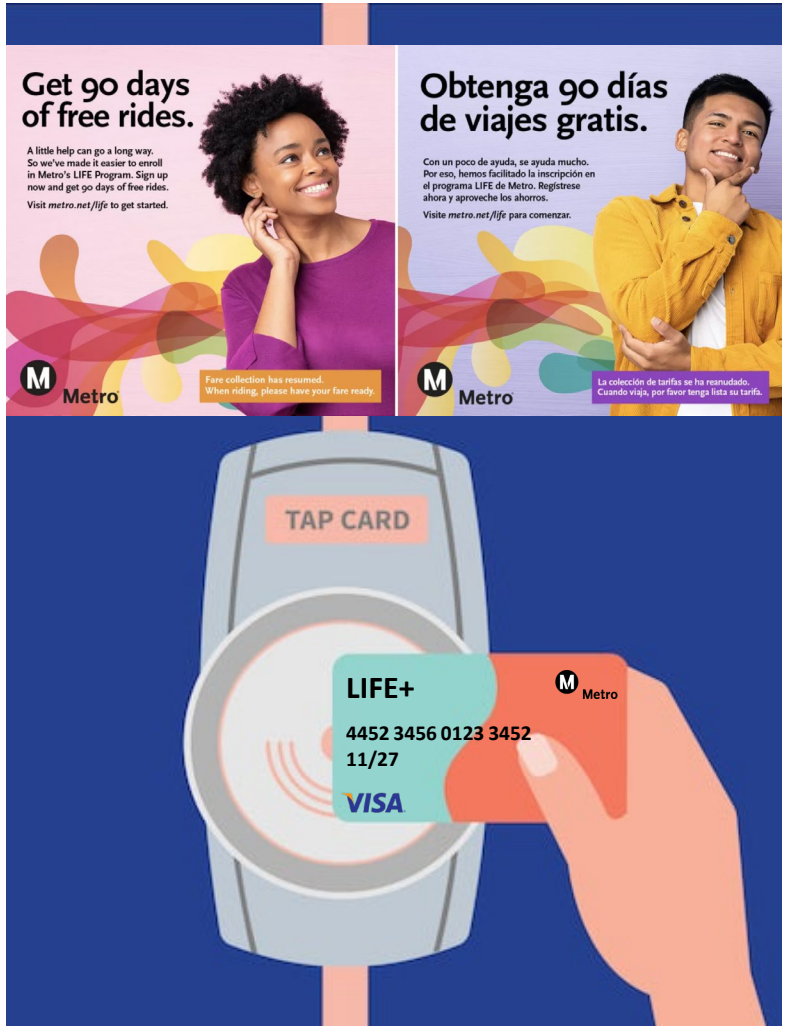
10,000 – 20,000 Wallets – Countywide + Emergency Wallets
ATTAIN, CMAQ and CRP Funds (TBD)

Games Mobility Wallets?

Mobility Wallet

Future Expansion Possibilities

- Continue to Pursue Grant Funding
- Synergy with Caltrans road pricing work under ATTAIN grant.
- **Explore Integration with LIFE (Low Income Fare Is Easy) program**
  - Singular Europay/Mastercard/Visa standard (EMV) card under Open Loop acceptance.
  - **Combined Wallet Subsidy + Unlimited LIFE**
- Traffic Reduction Study (TRS)
  - Modeling shows positive synergy with Mobility Wallet as a low-income assistance strategy that is more effective than discounts in driving transit ridership.
  - Local source for large # of wallets.



Mobility Wallet

Lessons Learned: Strenghths and Successes

- **High Demand & Engagement:**
  - Over 57K applications and ~50% midpoint survey response demonstrate strong program interest and participant engagement
- **Efficient Fund Deployment:**
  - Front-loading funds improved administrative efficiency and reduced ongoing transaction management burden
- **Strong Partnerships:**
  - Effective collaboration with CBOs, Uber, Waymo, and evaluation partners (UCLA/UC Davis) strengthened program delivery and insights
- **Digital & Communication Tools:**
  - Text messaging, multilingual outreach, and online resources improved accessibility and user support
- **Program Infrastructure:**
  - Transition to a new vendor and administrative platform created a stronger foundation for scaling future phases
- **Expanded Use Cases:**
  - Ability to support emergency wallet deployment, bike purchases, and multimodal options increased program flexibility and enhanced user benefits.

Mobility Wallet

Lessons Learned: Challenges and Gaps

- **Customer Support Demand:**
  - High customer service volume required more staffing, structured support, and proactive communication
- **System Fragmentation:**
  - Managing dual card systems (Insta vs. Relia II) created reporting inconsistencies and operational complexity
- **Digital Barriers:**
  - OTP/email verification and onboarding UX created friction, especially for users with limited tech access
- **Fraud & Card Management:**
  - Fraud flags, blocked cards, and reissuance (digital vs. physical) created delays and participant frustration
- **Data Limitations:**
  - Restricted data sharing limited ability to fully evaluate and optimize partnerships

Mobility Wallet Phase 3 Program Design

Program Elements under Consideration

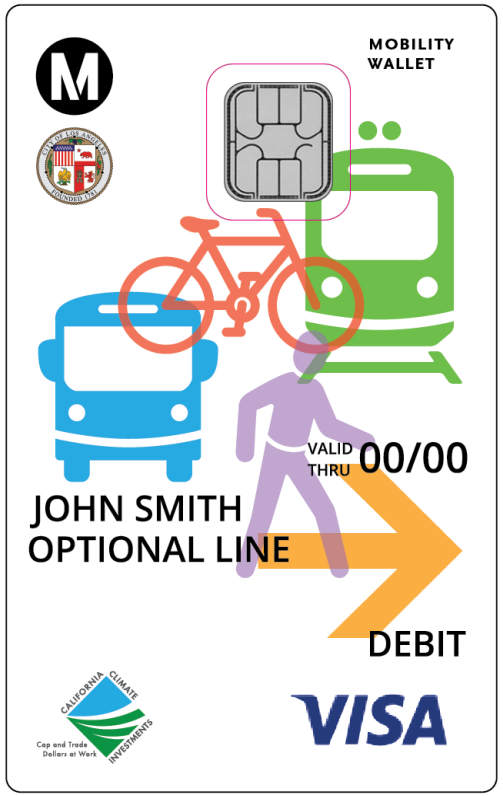
Categories	Discussion
Geography	Countywide
Subsidy Amount	$600, $900, $1,800, or more | + Unlimited LIFE ($963 = Reverse fare capping)
Program Duration	6 months vs. 12 months
Pilot Size	Contingent on subsidy amount 10,000 – 20,000
Eligibility Requirements	18+ | LA County Resident | LIFE Income Eligible |
Application and Recruitment	Submittable
Application Type	Online and at CBO workshops
Vendor	TBD
Card Type	Physical Card (Contactless with Apple/Google Pay Capabilities)
Participant Verification	TBD: Under consideration – Submittable E-Verify, Self-Attestation, Spot Audit like LIFE, LogIn.Gov/Cal-ITP State of CA Data exchange
MCC Restrictions	4111 | 4112 / 4131 | 4121 | 4789 | 5940 | 7512 | 7999 | New MCC Tolling: (4784)
Customer and Participant Support	Provided by Card Vendor
What else is missing?	

Contacts

Metro Staff
Avi Shavit, Sr. Director
shavita@Metro.net

Hector Gutierrez, Sr. Manager
GutierrezH3@metro.net

Mehul Malhotra, Principal Transportation Planner
malhotram@metro.net



METROLINK

Observations from 2026 Winter Olympics in Milan

Regional Transit TAC
April 29, 2026

Rail Agency Coordination

	Los Angeles	Milan
Urban transit (bus/rail)	Metro	ATM AZIENDA TRASPORTI MILANESI S.p.A.
Regional rail	METROLINK	TRENORD
Intercity/High-Speed Rail	AMTRAK	TRENITALIA GRUPPO FERROVIE DELLO STATO
		.italo

Milano

Linee metropolitane
Metro lines

- M1 Sesto 1° Maggio FS - Rho Fieramilano / Bisceglie
- M2 Assago Milanofiori Forum / P.za Abbiategrasso
  Chiesa Rossa - Cologno Nord / Gessate
- M3 Comasina - San Donato
- M4 Linate Aeroporto - San Cristoforo
- M5 Bignami Parco Nord - San Siro Stadio

Servizio ferroviario suburbano
Suburban lines

- S1 Saronno - Milano Passante - Lodi
- S2 (Meda)* - Seveso - Milano Passante - Milano Rogoredo
- S3 Saronno - Milano Bovisa - Milano Cadorna
- S4 Camnago-Lentate - Milano Bovisa - Milano Cadorna
- S5 Varese FS - Milano Passante - Treviglio
- S6 Novara - Milano Passante - Pioltello Limito - (Treviglio)*
- S7 Lecco - Molteno - Monza - Milano P.Garibaldi
- S8 Lecco - Carnate - Monza - Milano P.Garibaldi
- S9 Saronno - Seregno - Monza - Milano - Albairate-Vermezzo
- S11 Como S. Giovanni - Milano P.Garibaldi - (Rho)*
- S12 Melegnano - Milano Passante - Milano Bovisa
- S13 Pavia - Milano Passante - Garbagnate Milanese
- S19 Albairate-Vermezzo - Milano Rogoredo

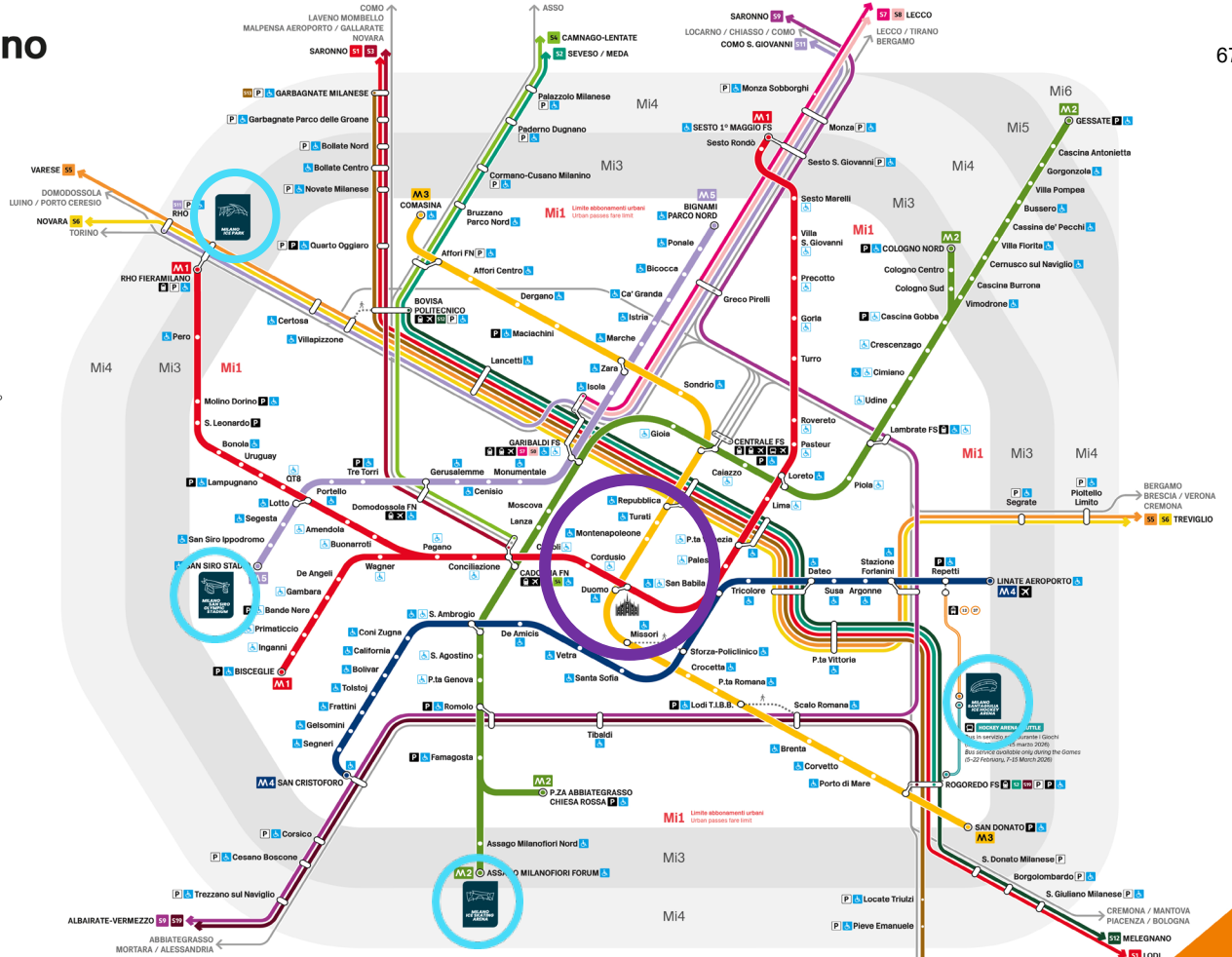
* Servizio a frequenza ridotta, controllare l'orario
Reduced-frequency service, check the timetable

Servizi ferroviari regionali
Regional rail services

- Metropolitana
  Metro
- Linee suburbane
  Suburban lines
- Stazione di interscambio
  Interchange station
- Percorso pedonale
  Pedestrian walkway

Mi1 Mi3 Mi4 Mi5 Mi6 Zone tariffarie
Fare zones

- Ascensore
  Lift
- Montascale
  Stairlift
- Treni AV e lunga percorrenza
  High-speed and long-distance trains
- Bus per aeroporti
  Airports bus services
- Treni per aeroporto di Malpensa
  Trains to Malpensa airport
- Aeroporto di Linate
  Linate Airport
- Parcheggi ATM
  ATM car parks
- Altri parcheggi
  Other car parks



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OLYMPIC AND PARALYMPIC GAMES BY THE NUMBERS

Milano Cortina 2026	LA28
2,900 (OLY) | 600 (PLY) Athletes	11,000 (OLY) | 4,400 (PLY) Athletes
1.5M Ticketed Spectators	15M Ticketed Spectators
14 Competition Venues	49 Competition Venues
22 Sports	51 Sports
195 Medal Events	900+ Medal Events
304 Sessions	1,100+ Sessions
~3,000 Accredited Media	~23,000 Accredited Media

***10x** more ticketed spectators*

***~800** more sessions*

CONTAINS CONFIDENTIAL & PROPRIETARY INFORMATION
DELIBERATIVE PROCESS | EXEMPT FROM CPRA & FOIA

METROLINK

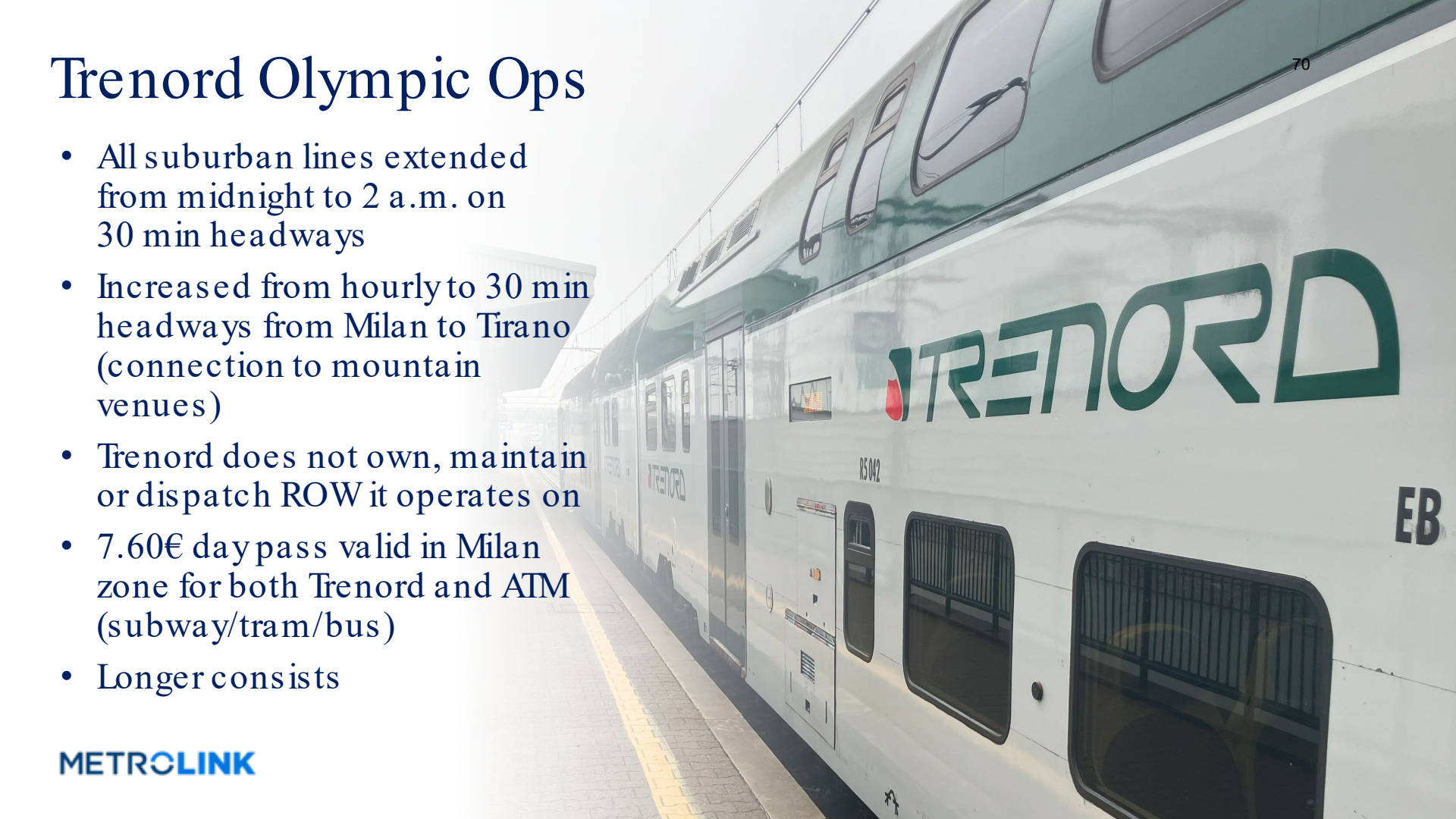
- Lines: 7
- Stations: 67
- Avg. weekday ridership: 25,000
- Route miles (unduplicated): 437

TRENORD

- Lines: 55
- Stations: 460
- Avg. weekday ridership: 762,000
- Route miles (unduplicated): 1,190

Trenord Olympic Ops

- All suburban lines extended from midnight to 2 a.m. on 30 min headways
- Increased from hourly to 30 min headways from Milan to Tirano (connection to mountain venues)
- Trenord does not own, maintain or dispatch ROW it operates on
- 7.60€ day pass valid in Milan zone for both Trenord and ATM (subway/tram/bus)
- Longer consists



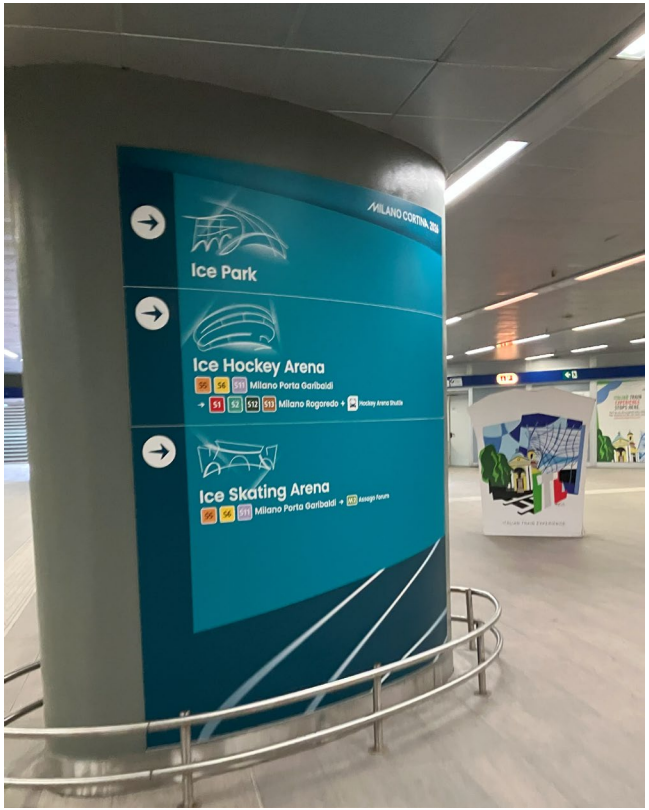
METROLINK

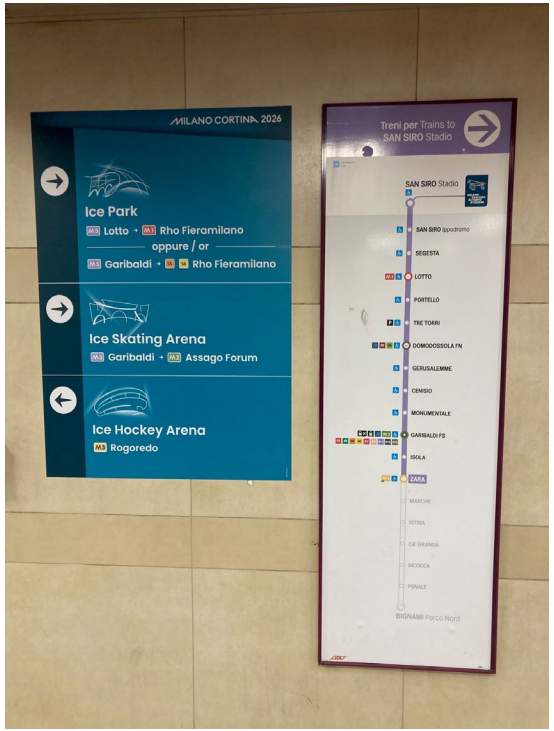
Transportation Operations Center

- MICO organizing committee
- ATM (bus/tram/metro)
- Trenord (regional rail)
- Trenitalia (national rail)
- Private bus charter

METROLINK

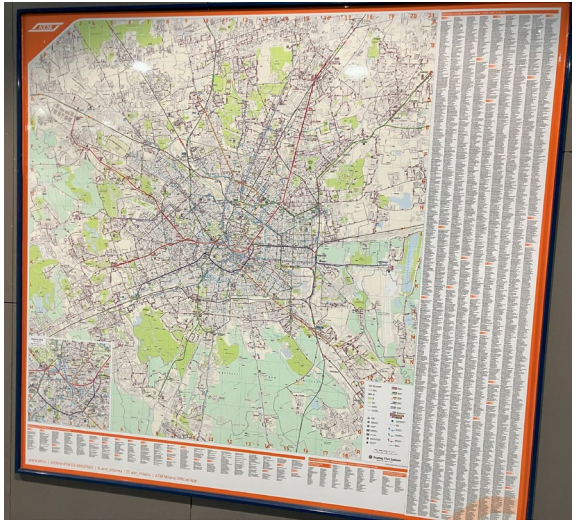
Wayfinding – Static (Games Overlay)

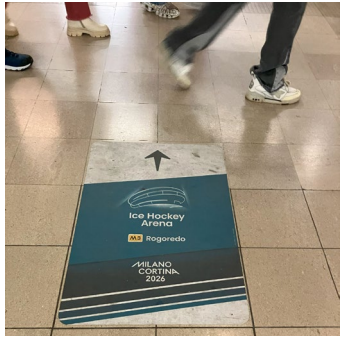




METROLINK

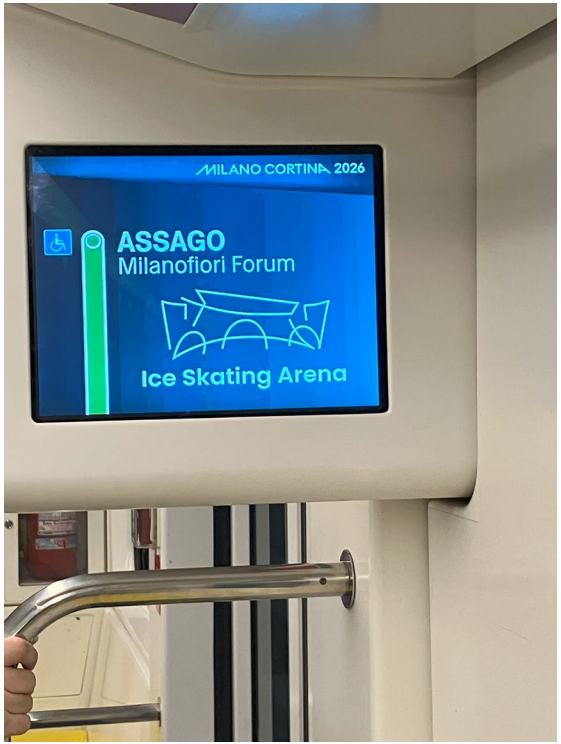
Wayfinding – Needs Improvement

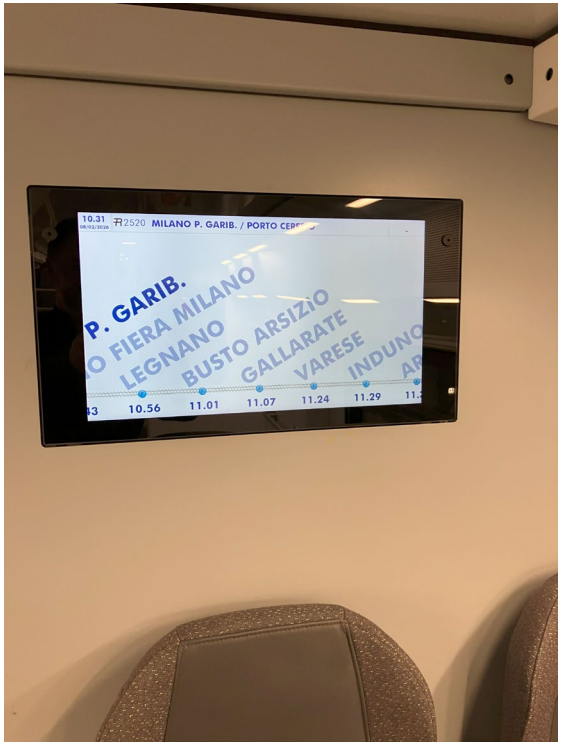




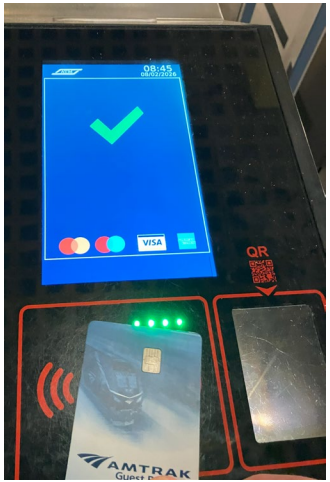
METROLINK

Wayfinding - Digital





Fare Payment – Contactless (ATM)



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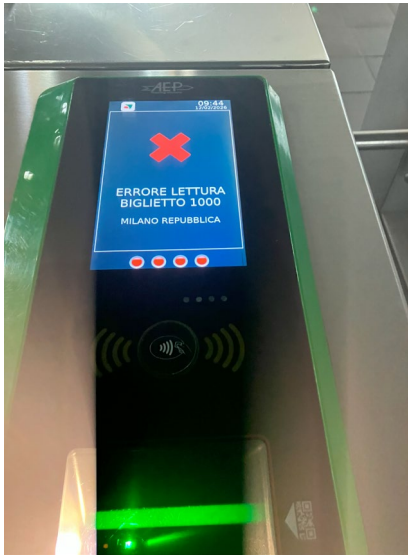
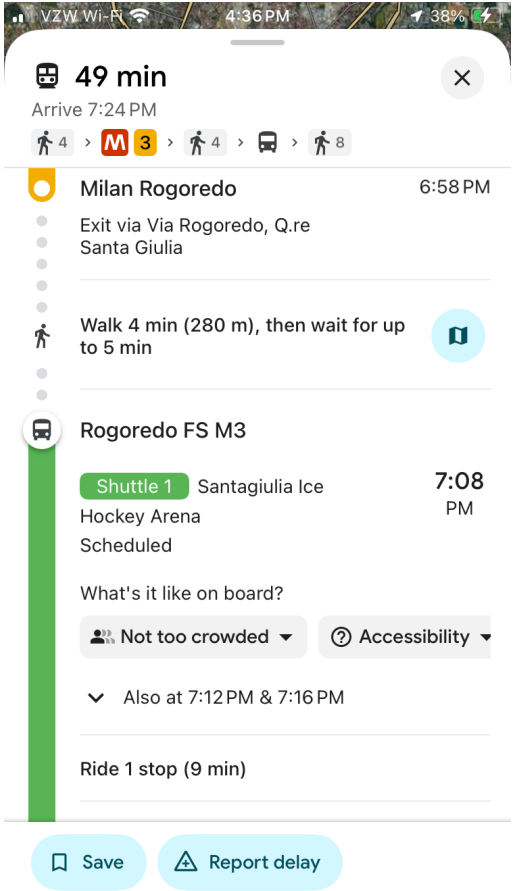
Fare Payment – (Regional/Intercity Rail)



Olympic Venue Connections



METROLINK

Crowd Management – Post Event

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Crowd Management – Post Event

Olympic Co-Branding

METROLINK

Security Cameras

METROLINK

Security Incidents

CRIME | ITALY

Italian police probe 'sabotage' on rail lines to Olympics

Kieran Burke with Reuters, AFP
02/07/2026

Three incidents of damage to rail infrastructure around Bologna in northern Italy are being investigated. Authorities said journeys to day one of the Winter Olympic Games have been disrupted.

METROLINK

Anarchists claim responsibility for rail sabotage during Italy Olympics

By **Reuters**

February 9, 2026 11:26 AM PST · Updated February 9, 2026

A woman looks at a board announcing delays at the Milan train station, as Italian police investigate possible sabotage to electricity cables near the city of Bologna that have caused delays to a large part of the national railway network, in Milan, Italy, February 7, 2026. REUTERS/Guglielmo Mangiapane Purchase Licensing Rights

Sport | Winter Olympics

Winter Olympics hit by another suspected sabotage of rail services

Italy's Transport Minister Matteo Salvini says 'lives at risk' as services between Milano Cortina Games hit.

Key Takeaways

- Inconsistent wayfinding signage at stations on trains
- Google Maps was best transit navigation tool
- Real-time displays in trains were helpful
- Metro lines crowded, but regional rail not as full
- Good connections between rail and venue shuttles
- Frequent headways (30 min rail, 4 min Metro)
- Lots of volunteers at venues, but not at rail stations
- Metering crowd flow to transit after events
- Security screenings inconsistent/lax

METROLINK

Thank you.

Caltrans Transit TechnologyInitiatives

Presentation to SCAG RTTAC

April 2026

Caltrans

To meet statewide goals, we need to make connections easier across modes, regions, and operators.

250+ transit operators…

All working to provide affordable, efficient public transportation to locals and tourists alike (S,S). Many use a mix of custom technology to run operations, including their own apps and fare collection systems.

182,000+ road miles…

With buses, trucks, cars, motorcycles, scooters, and bikes, controlled using tolls, traffic lights, express lanes, and more (S). There are endless opportunities to manage our roads better, using scarce space to support the functions we rely on.

150,000+ E.V. Chargers…

Helping us lead the nation as we go electric (S). Public chargers are becoming more essential, and we need to ensure that the EV infrastructure built today can serve everyone in the future.

35+ micromobility systems…

Offering millions of people a sustainable and fun way to commute to work or go for a joyride in the Golden State (S). As we look for ways to improve public and environmental health and expand mobility access, more shared micromobility can help us achieve these goals.

Thousands of private mobility providers…

Each innovating to create new ways for us to get around. These include major ride-hailing apps, alongside hundreds of other companies offering products, services, and technology supporting passenger travel. They are eager to collaborate with the public sector.

… all serving Californians.

Each with their own transportation needs and preferences. At CIM, we want to help make every journey for them as frictionless as possible, no matter where they want to go.

Caltrans

Why at Caltrans…?

Market Making:

- Conduct research to understand emerging issues and proactively identify solutions
- Leverage statewide scale to define products needed and procure them on behalf of all agencies statewide

Outcomes Focused:

- Proactively engage with local stakeholders to help accelerate consistent adoption of best practices
- Collect and analyze data on behalf of local agencies to improve the overall performance of our mobility ecosystem and proactively identify trends and issues

Efficient Funding:

- Invest state resources to find new solutions and develop products that benefit everyone
- Identify efficiencies that can better meet customer expectations while saving local agency operating costs

Sustainable travel is a priority in state policy and planning, but **systems lack the modern tools needed to succeed.**

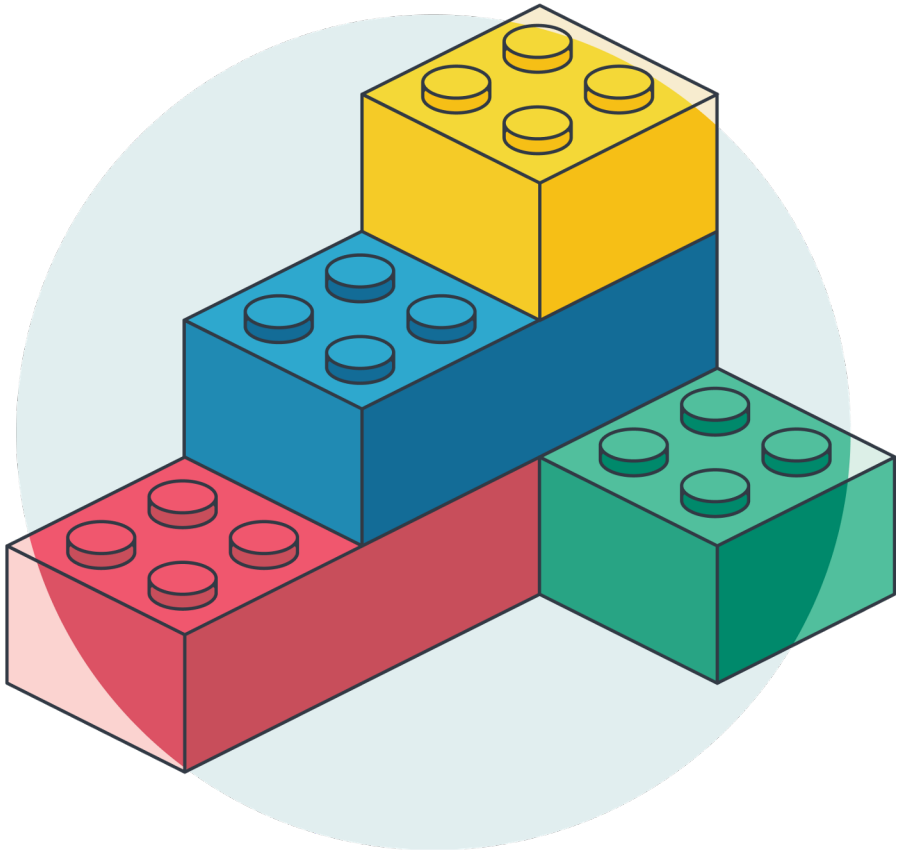
Digital infrastructure is a critical piece of operating efficient services that meet the state's goals and rider's expectations.

Cal-ITP became a model for State DOT focus on innovation

Cal-ITP was launched in 2019 following a feasibility study that confirmed transit agencies' desire for **technology** and the importance of **improving the customer experience** on public transit. Cal-ITP is a joint project by the California State Transportation Agency (CalSTA), the California Department of Transportation (Caltrans), and intercity and local transit partners.

The project successfully changed the market for:

- Providing accurate and complete information for trip planning in real time
- Enabling contactless payments
- Automating discounts



Caltrans is removing obstacles that limit interoperability in the transportation ecosystem

Role:

- Convene and support local stakeholders to help accelerate consistent adoption of best practices
- Invest state resources to find new solutions and develop products that benefit everyone
- Collect and analyze data to improve the overall performance of our mobility ecosystem
- Conduct research to understand emerging issues and proactively identify solutions

Partners:

Tools:

Across the transportation system, we employ high-value tools with a focus on customers, including:

- Statewide data standardization, collection, validation, and analytics
- Procurement innovation for key technologies, and leveraging economies of scale across the state
- Industry convening and engagement, with a focus on global standards and interoperability for riders
- Coordinating incentives and discounts for mobility

Impact:

We prioritize projects that deliver meaningful improvements in how Californians travel, including:

- Increasing the uptake of **sustainable travel**
- Improving **quality of life** and access to **socioeconomic opportunities** for all Californians
- Ensuring **transit providers** can benefit from innovation and improve service provision

A long-term home for transit technology innovation started by Cal-ITP

Multimodal Integration

- Exploring how payments and other key customer interactions can be better integrated across modes, including transit, tolling, EV charging, and micromobility
- Utilizing discounts, rewards, and incentives to make sustainable mobility more attractive and affordable, and supporting innovation for transportation subsidy programs

Mobility Data Standards

- Ensuring statewide adoption of GTFS-RT and additional extensions, and improving the quality of data reported
- Consolidating / standardizing a wide range of data content and format from transit agencies and / or their providers
- Increasing capacity to conduct statewide analytics on mobility infrastructure for reporting and planning purposes

Supporting Innovation Adoption

- Expanding technical support to local and regional partners
- Leveraging statewide relationships to make connections and help share learning throughout and beyond California
- Continuing procurement innovation work to make cutting edge technology easier to access for public entities

Removing Barriers

- Understanding and filling gaps in statewide internet coverage essential to real-time transit information systems
- Conducting research on existing and prospective transit users to develop solutions that meet their needs, e.g. universal design, accessible transit signage

Caltrans

Caltrans transit technology business case project

Objective: Create a roadmap of State interventions that fosters a competitive, accessible, and global standards-based transit technology market in California

- Many agencies, particularly those who serve small rural areas, lack transit technology largely due to resource constraints.
- Ongoing efforts with contactless payments and GTFS data have shown the benefit of state support to advance technology adoption.
- While this report focuses on state actions, there are also technology needs to be filled by other state and regional agencies, the federal government, local governments, and private-sector stakeholders to support transit and lower VMT

Phase 1 defined the market supply and demands

The team surveyed the transit technology ecosystem and reported on key trends for transit providers across California.

Direct technical assistance can achieve policy objectives.

Transit providers want (and need) technical support.

Technical support should continue throughout the life of the contract.

In-house procurements are the most common acquisition method.

Procurements are often reactions to contract expirations.

Safety and security technology tends be the "least common dominator."

The size of the provider correlates with the size of its tech stack.

Providers are looking to innovate but know they need a strong tech base to do so.

Both providers and vendors agree that interoperability is critical to success.

California can bridge the gap between providers' priorities and passengers' interests.

Phase 2 prioritized identified transit technologies

Caltrans wanted to identify technologies which 1) were not currently being supported and 2) experienced market inefficiencies that could be influenced.

Deficient Market

- Automated Passenger Counter (APC)
- Charge Management Software (CMS)
- Computer Aided Dispatch (CAD)/ Automated Vehicle Location (AVL)
- Non-cellular connectivity
  - Satellites
  - LoRa
- Transit Signal Prioritization (TSP)

Efficient Market

- Offboard rider information
  - Trip planner (web based)
- Onboard rider information
  - Annunciators
  - Head signs
  - Infotainment
  - Next stop signs

Systems that Caltrans is already researching

- Alerts
- Digital signage
- GTFS / GTFS Management
- Payments
  - Onboard fares
  - Offboard fares
  - Backend services
- Scheduling

Market failure analysis methodology

Types of market inefficiency were assessed using the following categories.

Market Existence	Market Competition	Product Interactions	Access to Market	Market Knowledge
• There is a **market with both supply and demand** that are self-sustaining.	• There are **multiple quality options** in the market that are willing and able to sell to transit providers at fair market prices and deliver the purchased product.	• The vendor product meets **interoperability principles** and is easily assessed against **standard performance metrics**.	• **All transit providers** are able to access and purchase desired products, both in standalone and bundled formats.	• Transit provider **staff understand** what they are buying and why they are buying it; and are able to negotiate based on this level of knowledge.

Market Findings

All five prioritized transit technologies experience at least one form of market failure. The recommendations focus on how to mitigate or eliminate these failures.

APC

- Market Competition
- Product Interactions
- Market Knowledge

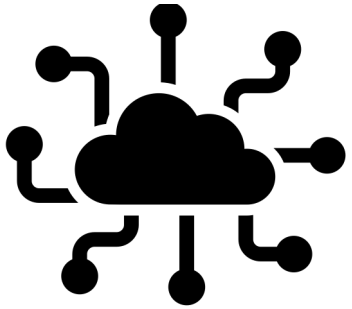
CMS

- Market Competition
- Product Interactions
- Market Knowledge

CAD/AVL

- Access to Market
- Product Interactions
- Market Knowledge

Connectivity



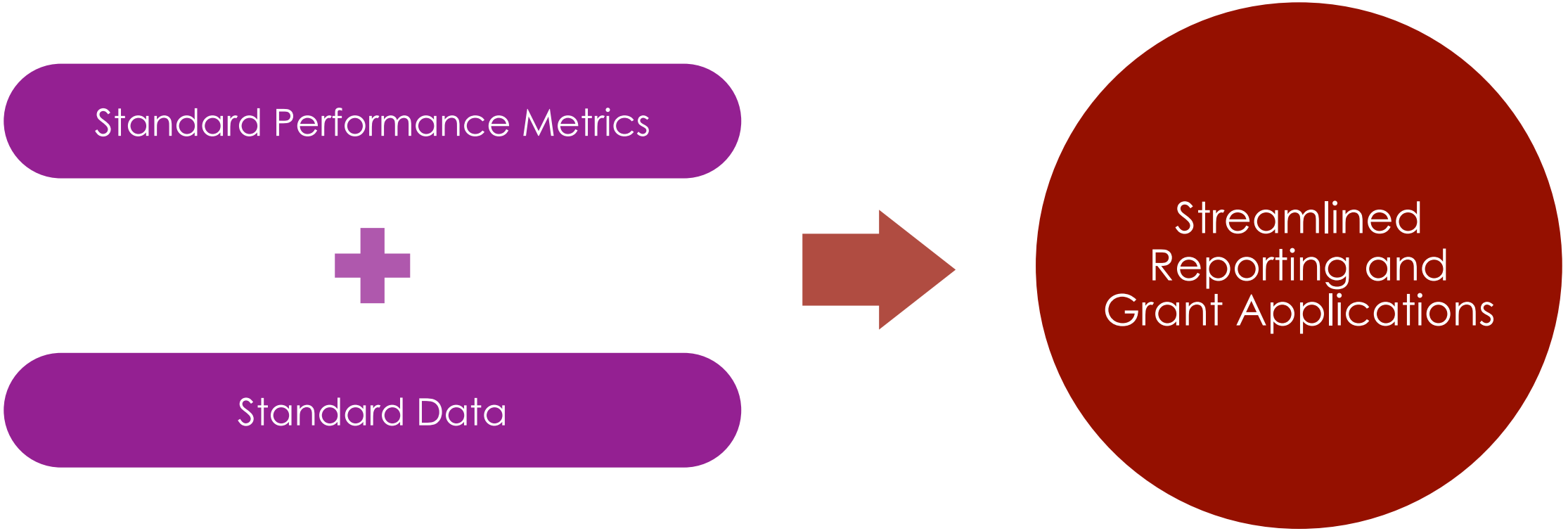
- Market Competition
- Access to Market
- Market Knowledge
- Market Existence

TSP

- Market Competition
- Product Interactions

General Recommendations

Regardless of technology, there is a need for standard performance metrics and data to streamline reporting and grant applications.



Technology Specific Recommendations

The recommendations largely fell into three categories where the state could play a role in addressing market inefficiencies.

APC	Provide guidance on bundling and modular procurement based on transit provider size, needs, and capacity.
CMS	Solicit feedback on types of CMS optimization, contractual requirements for interoperability, and create an industry working group comprised of public and private parties.
CAD/AVL	Define core components of CAD/AVL. Create a scope of work checklist for transit providers that want to procure CAD/AVL systems and provide boilerplate contracting language.
Non-Cellular Connectivity	Publish a coverage map of current cellular and broadband networks and the anticipated build out over the next 5-10 years to identify priority transit corridors for state intervention and planning.
TSP	Adopt NTCIP protocol for all signals statewide, sunset proprietary data format, and investigate the need for a data standard.

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Identified State Roles

State DOTs can play several key roles in addressing the market inefficiencies. These can be generalized across technologies into four categories.

Standardization

Standardize technology definitions and interactions to cultivate an interoperable ecosystem

Technical Support

Provide technical support to transit agencies on variety of technology needs and operational benefits

Coordination

Serve as coordinator between different agencies and regional organizations to implement technology

Procurement & Contracting

Need for sample language and technical support for market- and expert-informed procurement and contracting

Case Study: Connectivity

California is making it easier for transit providers to get data plans through Master Service Agreements (MSAs). These data-only plans are available to agencies with pre-negotiated rates listed. Your agency may be eligible to upgrade your data plan and save on monthly connectivity costs.

Major gaps in cellular service presents agencies in largely rural areas from implementing technology solutions. The team tested short term solutions in Trinity County (satellite)

Caltrans is also looking into long term solutions – stay tuned!

Learn more about data plans:
https://www.camobilitymarketplace.org/data-plans/

Case Study: GTFS-RT

GTFS Realtime lets agencies share live bus and train arrival times with riders, reducing uncertainty and improving overall satisfaction.

California offers 3 MSAs (Master Service Agreements) that make it easy to purchase GTFS Realtime software (and optional hardware) without doing your own procurement.

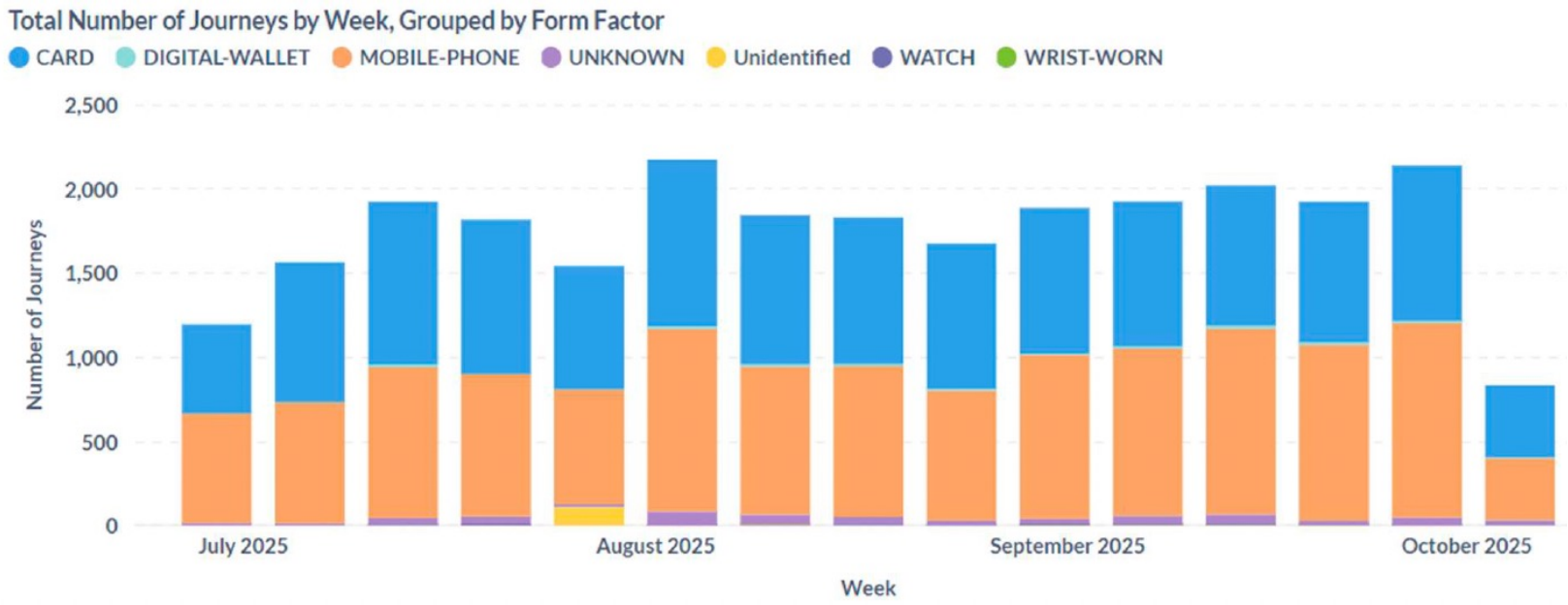
All contracts include:

- Creation of GTFS Realtime feeds
- Integration into up to 3 journey planning apps (i.e. Google Maps, Transit App, Apple Maps, etc.)
- Optional hardware for purchase*

Learn more about GTFS options: https://www.camobilitymarketplace.org/gtfs-realtime/

Case Study: Payment Data Insights

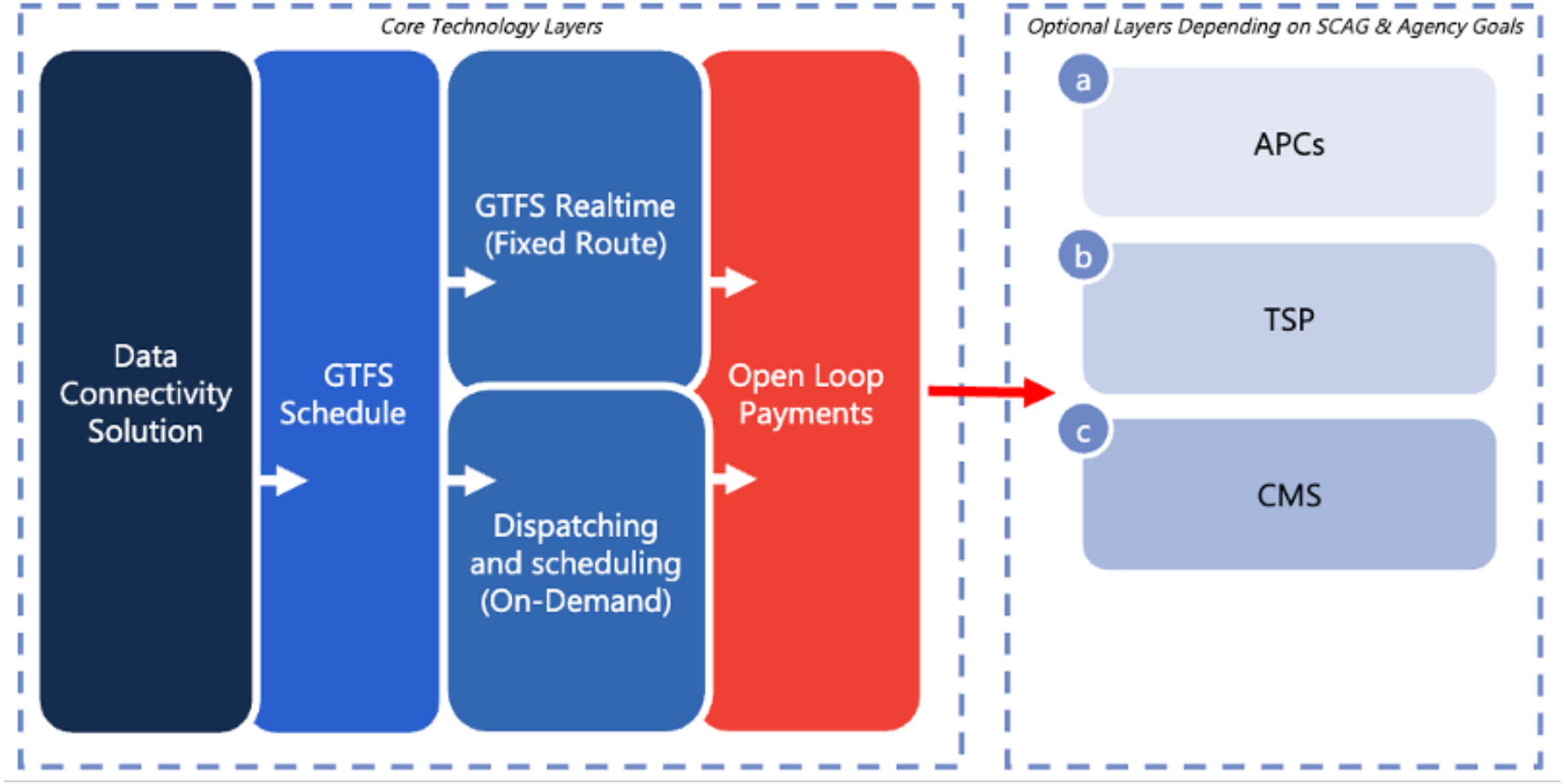
Transit providers can take advantage of California's Master Service Agreements (MSAs) to purchase hardware and software needed to accept contactless payments. Once they do, all transit agencies can work with Caltrans to access financial dashboards that provide information about contactless payment activity and associated costs.



The team provides industry-leading insights into:

- Merchant Service Charges
- Reconciliation to match journeys (trips) with deposited fare revenue in bank accounts
- Contactless payment metrics into routes and payment methods

Developing a transit technology stack



Thank you!