

# Agenda



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Southern California Regional Rail Authority

## **BOARD OF DIRECTORS**

### **SEPTEMBER 25, 2026**

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Los Angeles County Metropolitan Transportation Authority

Orange County Transportation Authority

Riverside County Transportation Commission

San Bernardino County Transportation Authority

Ventura County Transportation Commission

## BOARD ROSTER SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

| <u>County</u>                  | <u>Member</u>                                                                                           | <u>Alternate</u>                                                         |
|--------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Orange:</b><br>2 votes      | Doug Chaffee ( <i>Chair</i> )<br>Supervisor, 4 <sup>th</sup> District<br>County of Orange<br>OCTA Board | William Go*<br>Council Member<br>City of Irvine<br>OCTA Board            |
|                                | Tam Nguyen<br>Public Member<br>OCTA Board                                                               | Mark Tettermer*<br>Council Member<br>City of Lake Forest<br>OCTA Board   |
| <b>Riverside:</b><br>2 votes   | Brian Berkson ( <i>Vice-Chair</i> )<br>Mayor<br>City of Jurupa Valley<br>RCTC Board                     | Michael Vargas*<br>Mayor<br>City of Perris<br>RCTC Board                 |
|                                | Karen Spiegel<br>Supervisor, 2 <sup>nd</sup> District<br>County of Riverside<br>RCTC Board              | Linda Molina*<br>Council Member<br>City of Calimesa<br>RCTC Board        |
| <b>Ventura:</b><br>1 vote      | Tony Trembley ( <i>2<sup>nd</sup> Vice-Chair</i> )<br>Council Member<br>City of Camarillo<br>VCTC Board | Bob Engler<br>Mayor Pro Tem<br>City of Thousand Oaks<br>VCTC Board       |
| <b>Los Angeles:</b><br>4 votes | Kathryn Barger<br>Supervisor, 5 <sup>th</sup> District<br>County of Los Angeles<br>Metro Board          | Eric Ohlsen<br>Mayor<br>City of Palmdale<br>Metro Appointee              |
|                                | Ara Najarian<br>Metro Appointee<br>Metro Board                                                          | Walter Allen, III<br>Council Member<br>City of Covina<br>Metro Appointee |
|                                | Tim Sandoval<br>Mayor<br>City of Pomona<br>Metro Board                                                  | Pam O'Connor<br>Metro Appointee                                          |



|                                   | <b><u>Member</u></b>                                                            | <b><u>Alternate</u></b>                                               |
|-----------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------|
|                                   | Hilda Solis<br>Supervisor, 1st District<br>County of Los Angeles<br>Metro Board | Gustavo V. Camacho<br>Mayor<br>City of Pico Rivera<br>Metro Appointee |
| <b>San Bernardino:</b><br>2 votes | Larry McCallon<br>Council Member<br>City of Highland<br>SBCTA Board             | Javier Dutrey*<br>Mayor<br>City of Montclair<br>SBCTA Board           |
|                                   | VACANT<br>SBCTA Board                                                           | Ray Marquez*<br>Vice Mayor<br>City of Chino Hills<br>SBCTA Board      |

### **EX-OFFICIO MEMBERS**

#### **San Diego Association of Governments:**

Joy Lyndes  
Council Member  
City of Encinitas

#### **Southern California Association of Governments:**

Marty Simonoff  
Mayor Pro Tem, City of Brea

#### **State of California:**

Gloria Roberts  
District Director, Caltrans District 7

Alternate:  
Marlon Regisford  
Caltrans District 7

\*Alternate represents either member

## **BOARD OF DIRECTORS MEETING**

**FRIDAY, SEPTEMBER 25, 2026 – 10:00 AM**

LOS ANGELES COUNTY METROPOLITAN  
TRANSPORTATION AUTHORITY (METRO)  
BOARD ROOM  
ONE GATEWAY PLAZA, 3RD FLOOR  
LOS ANGELES, CALIFORNIA 90012

### **AGENDA DESCRIPTIONS**

The agenda descriptions are intended to give notice to members of the public of a brief general description of items of business to be transacted or discussed. The posting of the recommended actions does not indicate what action will be taken. The Authority may take any action that it deems to be appropriate on the agenda item and is not limited in any way by the notice of the recommended action. The Chair reserves the right to discuss the items listed on the agenda in any order.

A person with a disability may contact the Board Clerk's office at (213) 452-0255 or via email [BoardSecretary@scrra.net](mailto:BoardSecretary@scrra.net) at least 72-hours before the scheduled meeting to request receipt of an agenda in an alternative format or to request disability-related accommodations, including auxiliary aids or services, in order to participate in the public meeting. Later requests will be accommodated to the extent feasible.

### **SUPPORTING DOCUMENTATION**

The agenda, staff reports and supporting documentation are available from the Board Clerk, located at 900 Wilshire Blvd., Suite 1500, Los Angeles, CA 90017, and on the Metrolink website at [www.metrolinktrains.com](http://www.metrolinktrains.com) under About > Agendas & Documents.

### **PUBLIC COMMENTS ON AGENDA ITEMS AND ITEMS NOT ON THE AGENDA**

Metrolink welcomes comments from the public. Please fill out a Speaker's Form and submit it to the Board Clerk before the start of the meeting. If you know in advance of the meeting that you would like to make a public comment during the meeting, you may also email [BoardSecretary@scrra.net](mailto:BoardSecretary@scrra.net). Please include your name and the number of the agenda item on which you would like to speak, or if you would like to speak on a non-agenda item. Each speaker will be allotted no more than 3 minutes to speak. This time frame may be extended or limited by the Board Chair in a manner that achieves the purpose of public communication and assures the orderly conduct of the meeting. **Public Comment on Non-Agenda Items:** Please indicate on your speaker form that you wish to speak on a non-agenda item. Comments should be limited to matters within Metrolink's subject matter jurisdiction. **Public Comment on Agenda Items:** Speakers on individual agenda items will be called in order of sign-up before any Board action is taken on the item. Comments should be limited to the agenda item.

1. **Call to Order**
2. **Safety Briefing**
3. **Pledge of Allegiance**
4. **Roll Call**
5. **Public Comment**
6. **Approval of Consent Calendar Items: 13A.-13M.**  
All Consent Calendar items are listed at the end of the agenda.
7. **PUBLIC HEARING**

**7A. Adoption of Proposed FY27 Arrow Service Budget**

Arrow Service provides Diesel Multiple Unit (DMU) and Zero Emission Multiple Unit (ZEMU) transportation over a 9-mile rail corridor from San Bernardino-Downtown to Redlands-University.

An approved budget is required to provide funding for this service for FY27. This service is funded solely by SBCTA.

The Budget, Audit, and Finance Committee recommended (4-0) that the Board adopt the Proposed FY27 Arrow Service Budget.

There is no budget impact as a result of the transmission of this Proposed FY27 Budget.

**8. REGULAR CALENDAR**

**8A. FY27 Budget Development Update**

Staff will provide an update on the status of development of the FY27 Budget.

Receive and file.

**8B. Multiple Unit (MU) Implementation Plan Final Report**

In 2022 the San Bernardino County Transportation Authority (SBCTA) and Los Angeles County Metropolitan Transportation Authority (Metro) commissioned the Authority to develop a Multiple Unit (MU) Implementation Plan identifying the necessary steps and associated costs to implement a blended service of MUs and Locomotive Hauled Coaches (LHCs) on the San Bernardino Line (SBL) and Antelope Valley Line (AVL). The Final Report summarizes the analysis undertaken, conclusions, approach to implementing a blended service and a possible MU Pilot Plan.

Receive and file.

**8C. Sole Source Contract EP255-26 with Westinghouse Air Brake Technologies Corporation (WABTEC) for Purchase of New Parts and Repair and Return Services for Maintenance of Rolling Stock Equipment**

The Authority's Materials Management Department is seeking approval to negotiate and award a multi-year sole source contract with WABTEC to allow for the purchase of new parts and repair services needed to perform maintenance of the Authority's rolling stock.

It is recommended that the Board authorize the Chief Executive Officer to negotiate and award a three-year term Sole Source Contract with Westinghouse Air Brake Technologies Corporation (WABTEC) for the procurement of new parts and repair and return services for an estimated not-to-exceed amount of \$10,288,510.

The amount of contract authority needed for FY27 is \$2,572,127 and has been included in the Proposed FY27 Operating Budget. Use of the funds will be contingent upon Board approval or the FY27 budget. Funds needed for subsequent fiscal years will be requested through the annual budget process.

**8D. Single Source Contract with Calmat Co. dba Vulcan Materials Co. for Provision of Railway Ballast and Rip-Rap Rock**

The Authority's Materials Management Department is seeking approval to negotiate and award a single source contract with Calmat Co. dba Vulcan Materials Co for the provision of Railway Ballast and rip-rap rock needed to support the maintenance of the Authority's right-of-way.

It is recommended that the Board authorize the Chief Executive Officer to negotiate and award a three-year Single Source Contract with Calmat Co. dba Vulcan Materials for the provision of as needed railway ballast and rip-rap rock for an estimated not-to-exceed amount of \$983,501.

The amount of contract authority needed for the first year is \$247,833 and has been included in the FY27 Proposed Operating Budget and use of the funds is contingent upon the Adoption of that budget by the Board. Funding for subsequent years will be requested through the annual budget process and is contingent upon approval by the Board.

**8E. Contract No. C3172-27 - CMF Restroom Refurbishment Project - Recommendation to Award - Blackpointe Group Construction and Management**

The Authority requires the refurbishment of the restrooms at the Central Maintenance Facility (CMF), located at 1555 N. San Fernando Road, Los Angeles, CA 90065. The existing restrooms have reached the end of their useful service life, require frequent repairs, and no longer adequately support daily operations. Refurbishment is necessary to restore the facilities to a state of good repair, improve reliability, and provide functional restroom facilities for employees.

It is recommended the Board authorize the Chief Executive Officer to negotiate and award Contract No. C3172-27 Central Maintenance Facility Restroom Refurbishment Project to the responsive and responsible bidder, Blackpointe Group Construction and Management, in the amount of \$695,303.48 plus 15% contingency of \$104,295.52, for a total not-to-exceed amount of \$799,599.

The amounts for which contract authority is requested are included in the adopted Capital Budget for FY 2024 & FY 2023 (\$799,599.00), consisting of the bid amount of \$695,303.48 plus a 15% contingency of \$104,295.52.

**8F. Contract No. C3173-27 - Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project - Recommendation to Award - DRS Contracting**

Rehabilitation and/or replacement of various track and structures infrastructure within the Ventura Subdivision are required to maintain a state of good repair and maintain the safety and reliability of the existing rail system and supporting infrastructure.

Rehabilitation of Tunnel 25 and Tunnel 26 track and drainage infrastructure improvements within the Valley Subdivision and Ventura Subdivision, respectively, are required to maintain a state of good repair and maintain the safety and reliability of the existing rail system and supporting infrastructure.

A new contract is required through which the various improvements described above will be implemented.

It is recommended that the Board authorize the Chief Executive Officer to award Contract No. C3173-27 – Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project to the lowest responsive and responsible bidder, DRS Contracting, for \$17,519,500 plus 10% contract contingency of \$1,751,950.00 for a total not-to-exceed amount of \$19,271,450. This recommendation is subject to the resolution of any timely filed protest.

The amounts for this project have been approved in FY21 and FY23 capital budgets and funded by FY2020 Federal-State Partnership for State of Good Repair Grant Program using matching TIRCP funds granted by CalSTA through SCORE.

**8G. Contract No. SP504R-20 - Amendment No. 4 - Cash Collection Counting Services - Recommendation to Extend Contract Term and Increase Contract Authority - Sectran Security, Inc.**

Continuous cash collection and counting services are required for the Authority's Ticket Vending Machines (TVMs), and Ticket Office Machines (TOMs).

It is recommended that the Board authorize the Chief Executive Officer to amend Contract No. SP504R-20 with Sectran Security, Inc. to:

1. Extend the contract period of performance for 12 months through December 31, 2027; and
2. Increase the current contract authority by \$365,000 from \$1,722,720 to a new not-to-exceed \$2,087,720.

The cost of the Cash Collection Services is included in the proposed FY27 Budget and is contingent upon its adoption by the Board of Directors.

**8H. Fiscal Year 2026 Customer Experience Update**

Staff is updating the Board on Customer Experience campaigns and activities. These updates will be provided periodically throughout the year.

Receive and file.

**8I. September Legislative Update**

Staff provides a regular monthly update on current legislative affairs.

Receive and file.

**8J. System Safety, Security, and Compliance (SSSC) Department Activities - Update Q4 FY26**

Staff is providing a summary of the Authority's safety, security, and compliance activities for Q4 for Fiscal Year (FY) 2026.

Receive and file.

**9. Chief Executive Officer's Report**

- Authority Update

**10. Board Members' Comments**

**11. Chair's Comments**

**12. CLOSED SESSION**

- A. CONFERENCE WITH LEGAL COUNSEL – PENDING LITIGATION – Pursuant to Government Code Section 54956.9(d)(1) – *Filippi v. SCRRA*, Los Angeles Superior Court, Case No. 26STCV29198

**13. CONSENT CALENDAR**

**13A. Approval of Meeting Minutes - June 26, 2026 and July 24, 2026 Regular Board Meetings**

It is recommended that the Board approve the Minutes of the June 26, 2026 and July 24, 2026 Regular Board Meetings.

**13B. Board and Committee Meeting Dates for Calendar Year 2027**

Staff has prepared the Board and Committee meeting schedule for 2027 in an effort to maintain a regular meeting schedule and mitigate schedule conflicts.

It is recommended the Board approve the 2027 Board and Committee meeting schedule as detailed in Attachment A, holding the Budget, Audit, and Finance Committee (BAFCOM) meeting on the 2nd Friday of the month, and the Board Meeting on the 4th Friday of the month.

There is no budgetary impact as a result of this report.

**13C. 2026 FIFA World Cup Recap**

Staff will provide a recap of Metrolink's operations in support of the 2026 FIFA World Cup.

Receive and file.

**13D. Supplemental Benefits for Authority Employees**

Approval is needed to enter into agreements for Life, Accidental Death & Dismemberment (AD&D), and Long-Term Disability insurance, family and medical leave administration and voluntary benefits for Authority employees.

It is recommended that the Board authorize the Chief Executive Officer to enter into an agreement with Delta Dental for dental insurance; Vision Service Plan (VSP) for vision insurance; Prudential for life, AD&D, and LTD insurance, voluntary benefits, and family and medical leave administration; and Aflac for Short-term Disability for employees enrolled in the plan as of December 31, 2026 only.

The amount for which contract authority is requested is included in the proposed Operating Budget for FY2026-27 and is contingent upon the adoption of the FY27 Operating Budget.

**13E. First Annual Review of the Working Capital Fund (WCF)**

SCRRA Working Capital Fund Policy - FIN 9.7 indicates the following:

*"The Working Capital Fund status shall be reviewed annually by SCRRA Board of Directors. The Member Agencies and SCRRA Board of Directors will consider the adequacy of the Working Capital Fund amount and will recommend any changes, as deemed necessary."*

The Working Capital Fund Standard Operating Procedure (SOP) further clarifies the first annual review shall take place in the September 2026 Board reporting cycle. The purpose of this Agenda item is to present summary WCF activity as well as anticipated future needs, in order to facilitate the Board's consideration of any necessary changes.



The Budget, Audit, and Finance Committee recommended (4-0) the Board maintain the current level of deposits in the WCF at \$50 million due to anticipated growth in Capital Program incurred expenses in FY27. No changes are recommended to the WCF Policy or Statement of Operating Procedures (SOP) at this time.

There is no anticipated Budget impact associated with this report. However, should the WCF facility be terminated or the funding commitment reduced, there would be negative liquidity impacts related to the Operating Budget as operating funds would be required to resume pre-funding of Capital program expenses.

**13F. FY2025-26 Working Capital Fund Report, Quarter Ending June 30, 2026**

SCRRA Working Capital Fund Policy - FIN 9.7, as well as executed Member Agency MOUs related thereto, require quarterly reporting of Working Capital Fund (WCF) activity to the SCRRA Board of Directors.

This quarterly report and accompanying attachments provide the following information:

1. Summary and project-level detail for WCF advances and repayments;
2. WCF interest income received; and
3. Reconciliation of beginning and ending quarterly WCF balances.

Receive and file.

**13G. FY2025-26 Preliminary Quarterly Investment Report - Quarter Ended June 30, 2026**

The Authority's Annual Investment Policy requires the Treasurer to make a quarterly investment report to the Board of Directors. Section 53646 of the California Government Code encourages local agencies to file this report and provides requirements for report content and disclosures. This report is for the quarter ended June 30, 2026, and contains estimated information published prior to the conclusion of the Authority's fiscal year close and is subject to adjustment.

Receive and file.

**13H. FY2025-26 Preliminary Quarterly Accounts Receivable Status Report - Quarter Ended June 30, 2026**

This report presents an update on the Authority's Accounts Receivable for the quarter ended June 30, 2026. The report covers outstanding receivables, unbilled balances, and provides a status related to billing and collection efforts.

Receive and file.



**13I. Fiscal Year 2026 Annual Audit Activities Review**

The Internal Audit Department (Internal Audit) is providing the Fiscal Year (FY) 2026 annual report to the Board as required by the Internal Audit Charter.

Receive and file.

**13J. Corrective Action Status Update - Fourth Quarter Ended June 30, 2026**

The Internal Audit Department (Internal Audit) provides the Board with a quarterly report on the status of the corrective actions of prior audits.

Receive and file.

**13K. Performance Audit: Fuel Purchase Policy FIN 11.1 Rev. 3**

Internal Audit completed the annual performance audit of the Fuel Purchase Program as required by Fuel Purchase Policy FIN-11.1.

Receive and file.

**13L. FY2025-26 Quarterly Fuel Purchase Program Update - Quarter Ending June 30, 2026**

Staff is providing an update on the Authority's Fuel Purchase Program for the quarter ended June 30, 2026.

Receive and file.

**13M. Report of FY27 Financial Results for the One Month Ended July 2026**

This report covers monthly Ridership, Revenue, and Financial Operating Performance for the first month of FY27. The Ridership and Revenue data emphasizes "By Line" performance. The reporting also displays the effect of farebox subsidies in this year compared to last year. Financial performance reporting emphasizes adherence to budget, particularly at the Member Agency Support Line.

Receive and file.

**14. ADJOURNMENT**



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-303-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** Adoption of Proposed FY27 Arrow Service Budget

### **Issue**

Arrow Service provides Diesel Multiple Unit (DMU) and Zero Emission Multiple Unit (ZEMU) transportation over a 9-mile rail corridor from San Bernardino-Downtown to Redlands-University.

An approved budget is required to provide funding for this service for FY27. This service is funded solely by SBCTA.

### **Recommendation**

The Budget, Audit, and Finance Committee recommended (4-0) that the Board adopt the Proposed FY27 Arrow Service Budget.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitments of:

- **Safety is Foundational:** We will stay on the leading edge by deploying new technologies and processes to enhance the safety and security of our riders, our fellow employees, and the communities we serve.
- **Customers Are Our Business:** We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to bring them on board.

- **Connecting and Leveraging Partnerships:** We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving.
- **Advancing Key Regional Goals:** We will grow the role of regional rail in addressing climate change, air quality, and other pressing issues by advancing toward zero emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for all communities throughout Southern California.

## **Background**

Budgetary difficulties have deferred the transmittal and adoption of the Arrow Service Budget for FY27. In order to provide funding for continuing operations, the Metrolink Board passed a three-month Continuing Appropriations Resolution on June 26, 2026 and a three-month extension to that resolution on July 24, 2026, in total providing funding through December of 2026. At such time as an FY27 Budget is adopted, the Continuing Resolution amounts will be replaced with the Adopted Budget.

## **Discussion**

The Proposed FY27 Arrow Service Budget has been reviewed in detail with the staff of SBCTA. The Proposed FY27 Operating Budget for Arrow Service reflects:

- Revenue of \$309K
- Expenses of \$18.9M
- Support required of \$18.3M

The comparisons of the Proposed FY27 Budget to the FY26 Adopted Budget, including category details are shown in Attachment A. Attachment B shows the historical details of Operating Statements for Arrow Service.

### **Capital Program Budget**

- State of Good Repair (SGR) is \$501K
- Capital for FY27 is \$336K

A cash flow for the Capital Program is included as Attachment C. A detail of the State of Good Repair budgeted for FY27 is in Attachment D. Attachment E is a detail of the carryover projects in FY27 (projects approved in prior years - not yet completed). New Capital Carryover is in Attachment F.

### **Operating Revenue**

Operating Revenue consists of:

- Farebox Revenue in the amount of \$226K, a decrease of \$145K or 39.1% from FY26 Budget, amounts from the CPP College Pass Program in the amount of \$34K, *Mobility for All* subsidy in the amount of \$7K, and LCTOP Grant for reduced student fares in the amount of \$42K
- Subtotal Farebox Revenues in the amount of \$309K, a decrease of \$126K or 29% from the FY26 budget.

Operating Revenue also includes MOW Revenue in the amount of \$261K provided by freight railroads to compensate for usage of track owned by SBCTA. In total, Operating Revenue at \$569K is a decrease of \$120K or 17% from FY26 Budget.

Expense consists of the following Major categories:

- Train Operations = \$14.7M, an increase from FY26 Budget of \$527K or 3.7%
- Maintenance of Way = \$2.1M, an increase of \$301K from FY26 Budget or 16.9%
- Administration and Services = \$2.0M, a decrease of \$121K or 5.6% from the FY26 Budget
- Insurance and Legal = \$0.1M

The major expense drivers are:

- Equipment Maintenance = \$5.3M (Stadler will be overhauling engines in FY27 and adding storage for parts)
- Train Operators = \$4.1M
- Security = \$2.6M (including both Sheriffs and Guards)
- MOW = \$2.1M
- Materials = \$405K

Expenses total \$18.3M, an increase of \$0.8M or 3.8% from the FY26 Budget

Support required = \$18.3M, an increase of \$810K or 4.6% from the FY25 Budget

**Budget Impact**

There is no budget impact as a result of the transmission of this Proposed FY27 Budget.

**Next Steps**

The Arrow Budget will be adopted at the regular September Board Meeting.

Prepared by: Christine J. Wilson, Assistant Director, Finance

Approved by: Tom Schamber, Chief Financial Officer

**Attachment(s)**

[Attachment A - Arrow Budget FY27 Compared to FY26](#)

[Attachment B - Arrow Operating Statement History](#)

[Attachment C - FY27 Arrow Capital Projects Cash Flow](#)

[Attachment D - FY27 SGR Arrow Proposed Project](#)

[Attachment E - FY27 SGR Arrow Carryover](#)

[Attachment F - FY27 New Capital Arrow Carryover](#)

[Presentation - Proposed FY27 Arrow Service Budget](#)

**Arrow Service**  
**FY27 Proposed Operating Budget**

Attachment A

|                                                | FY 27 Proposed Budget | FY26 Adopted Budget | Variance FY 27 Budget vs FY26 Budget |               |
|------------------------------------------------|-----------------------|---------------------|--------------------------------------|---------------|
|                                                |                       |                     | \$                                   | %             |
| <b>Operating Revenue</b>                       |                       |                     |                                      |               |
| Farebox Revenue                                | 226,200               | 371,453             | (145,253)                            | -39.1%        |
| CPP College Pass Program                       | 33,800                | 0                   | 33,800                               | n/a           |
| Mobility 4 All                                 | 7,450                 | 9,704               | (2,254)                              | -23.2%        |
| Student Youth Discount Grant                   | 41,600                | 53,708              | (12,108)                             | -22.5%        |
| <b>Subtotal Pro Forma Farebox</b>              | <b>309,050</b>        | <b>434,865</b>      | <b>(125,815)</b>                     | <b>-28.9%</b> |
| Other Revenues                                 | 0                     | 0                   |                                      |               |
| MOW Revenues                                   | 260,675               | 254,643             | 6,032                                | 2.4%          |
| <b>Total Operating Revenues</b>                | <b>569,725</b>        | <b>689,508</b>      | <b>(119,783)</b>                     | <b>-17.4%</b> |
| <b>Operating Expenses</b>                      |                       |                     |                                      |               |
| <b><u>Operations &amp; Services</u></b>        |                       |                     |                                      |               |
| Train Operators                                | 4,067,870             | 4,147,901           | (80,031)                             | -1.9%         |
| Train Dispatch                                 | 180,685               | 182,464             | (1,779)                              | -1.0%         |
| Equipment Maintenance                          | 5,380,563             | 4,230,614           | 1,149,949                            | 27.2%         |
| Materials                                      | 405,047               | 1,390,868           | (985,821)                            | -70.9%        |
| Fuel                                           | 567,770               | 435,494             | 132,276                              | 30.4%         |
| Operating Facilities Maintenance               | 426,702               | 461,509             | (34,807)                             | -7.5%         |
| Other Operating Train Services                 | 18,023                | 17,498              | 525                                  | 3.0%          |
| Security - SB Sheriffs                         | 2,614,125             | 2,301,698           | 312,427                              | 13.6%         |
| Security - Guards                              | 298,579               | 276,462             | 22,117                               | 8.0%          |
| Public Safety Program                          | 2,000                 | 16,665              | (14,665)                             | -88.0%        |
| Passenger Relations                            | 15,816                | 13,907              | 1,909                                | 13.7%         |
| TVM Maint/Revenue Collection                   | 94,979                | 101,042             | (6,063)                              | -6.0%         |
| Marketing                                      | 195,000               | 200,026             | (5,026)                              | -2.5%         |
| Media & External Communications                | 5,000                 | 4,373               | 627                                  | 14.3%         |
| Utilities / Leases                             | 385,844               | 351,534             | 34,310                               | 9.8%          |
| Transfers to Other Operators                   | 11,000                | 10,000              | 1,000                                | 10.0%         |
| <b>Subtotal Operations &amp; Services</b>      | <b>14,669,003</b>     | <b>14,142,055</b>   | <b>526,948</b>                       | <b>3.7%</b>   |
| <b><u>Maintenance-of-Way</u></b>               |                       |                     |                                      |               |
| <b>Maintenance-of-Way Fee</b>                  | <b>2,085,311</b>      | <b>1,784,033</b>    | <b>301,278</b>                       | <b>16.9%</b>  |
| <b><u>Administration &amp; Services</u></b>    |                       |                     |                                      |               |
| Ops Salaries & Benefits                        | 836,353               | 1,008,728           | (172,375)                            | -17.1%        |
| Ops Non-Labor Expenses                         | 269,556               | 261,776             | 7,780                                | 3.0%          |
| Indirect Administrative Expenses               | 931,117               | 879,745             | 51,372                               | 5.8%          |
| Ops Professional Services                      | 0                     | 7,585               | (7,585)                              | -100.0%       |
| <b>Subtotal Administration &amp; Services</b>  | <b>2,037,026</b>      | <b>2,157,834</b>    | <b>(120,808)</b>                     | <b>-5.6%</b>  |
| <b><u>Insurance Expense (Recoveries)</u></b>   |                       |                     |                                      |               |
| Liability/Property/Auto/Misc                   | 104,450               | 104,450             | 0                                    | 0.0%          |
| Net Claims / SI                                | 9,250                 | 9,250               | 0                                    | 0.0%          |
| Claims Administration                          | 5,000                 | 5,000               | 0                                    | 0.0%          |
| <b>Subtotal Insurance Expense (Recoveries)</b> | <b>118,700</b>        | <b>118,700</b>      | <b>0</b>                             | <b>0</b>      |
| <b>Total Operating Expenses</b>                | <b>18,910,040</b>     | <b>18,202,622</b>   | <b>707,418</b>                       | <b>3.9%</b>   |
| CFR Compliance                                 | 0                     | 16,332              | (16,332)                             | n/a           |
| <b>Total Expenses</b>                          | <b>18,910,040</b>     | <b>18,218,954</b>   | <b>691,086</b>                       | <b>3.8%</b>   |
| <b>Loss/Member Support Required</b>            | <b>(18,340,315)</b>   | <b>(17,529,446)</b> | <b>(810,869)</b>                     | <b>4.6%</b>   |

Note: Addition of \$375,000 for additional storage facility in *Equipment Maintenance* Category

**ARROW SERVICE**  
**Historical Actual and Budgeted Operating Statements**

Attachment B

|                                                | <b>FY27<br/>PROPOSED<br/>BUDGET</b> | <b>FY26<br/>ADOPTED<br/>BUDGET</b> | <b>VARIANCE<br/>FY27 VS FY26<br/>OVER/(UNDER)</b> |                | <b>FY25<br/>ACTUAL</b> |
|------------------------------------------------|-------------------------------------|------------------------------------|---------------------------------------------------|----------------|------------------------|
|                                                |                                     |                                    | AMOUNT                                            | %              |                        |
| <b>Operation Revenue</b>                       |                                     |                                    |                                                   |                |                        |
| Farebox Revenue                                | 226,200                             | 371,453                            | (145,253)                                         | (39.1%)        | 201,449                |
| CPP College Pass Program                       | 33,800                              | 0                                  | 33,800                                            | n/a            | 0                      |
| Mobility 4 All                                 | 7,450                               | 9,704                              | (2,254)                                           | (23.2%)        | 6,500                  |
| Student Youth Discount Grant                   | 41,600                              | 53,708                             | (12,108)                                          | (22.5%)        | 0                      |
| Student Adventure Pass                         | 0                                   | 0                                  | 0                                                 | n/a            | 185,323                |
| <b>Subtotal Pro Forma Farebox</b>              | <b>309,050</b>                      | <b>434,865</b>                     | <b>(125,815)</b>                                  | <b>(28.9%)</b> | <b>393,271</b>         |
| Other Revenues                                 | 0                                   | 0                                  | 0                                                 | n/a            | 66,125                 |
| MOW Revenues                                   | 260,675                             | 254,643                            | 6,032                                             | 2.4%           | 252,268                |
| <b>Total Operating Revenues</b>                | <b>569,725</b>                      | <b>689,508</b>                     | <b>(119,783)</b>                                  | <b>(17.4%)</b> | <b>711,664</b>         |
| <b>Operating Expenses</b>                      |                                     |                                    |                                                   |                |                        |
| <b><u>Operations &amp; Services</u></b>        |                                     |                                    |                                                   |                |                        |
| Train Operators                                | 4,067,870                           | 4,147,901                          | (80,031)                                          | (1.9%)         | 3,781,138              |
| Train Dispatch                                 | 180,685                             | 182,464                            | (1,779)                                           | (1.0%)         | 173,567                |
| Equipment Maintenance                          | 5,380,563                           | 4,230,614                          | 1,149,949                                         | 27.2%          | 3,673,422              |
| Materials                                      | 405,047                             | 1,390,868                          | (985,821)                                         | (70.9%)        | 120,801                |
| Fuel                                           | 567,770                             | 435,494                            | 132,276                                           | 30.4%          | 371,939                |
| Operating Facilities Maintenance               | 426,702                             | 461,509                            | (34,807)                                          | (7.5%)         | 227,518                |
| Other Operating Train Services                 | 18,023                              | 17,498                             | 525                                               | 3.0%           | 10,238                 |
| Security - SB Sheriffs                         | 2,614,125                           | 2,301,698                          | 312,427                                           | 13.6%          | 2,306,984              |
| Security - Guards                              | 298,579                             | 276,462                            | 22,117                                            | 8.0%           | 255,186                |
| Public Safety Program                          | 2,000                               | 16,665                             | (14,665)                                          | (88.0%)        | 0                      |
| Passenger Relations                            | 15,816                              | 13,907                             | 1,909                                             | 13.7%          | 13,489                 |
| TVM Maint/Revenue Collection                   | 94,979                              | 101,042                            | (6,063)                                           | (6.0%)         | 76,217                 |
| Marketing                                      | 195,000                             | 200,026                            | (5,026)                                           | (2.5%)         | 134,790                |
| Media & External Communications                | 5,000                               | 4,373                              | 627                                               | 14.3%          | 0                      |
| Utilities / Leases                             | 385,844                             | 351,534                            | 34,310                                            | 9.8%           | 270,101                |
| Transfers to Other Operators                   | 11,000                              | 10,000                             | 1,000                                             | 10.0%          | 11,000                 |
| Mobilization Arrow                             | 0                                   | 0                                  | 0                                                 | n/a            | 1,076,040              |
| <b>Subtotal Operations &amp; Services</b>      | <b>14,669,003</b>                   | <b>14,142,055</b>                  | <b>526,948</b>                                    | <b>3.7%</b>    | <b>12,502,430</b>      |
| <b><u>Maintenance-of-Way</u></b>               |                                     |                                    |                                                   |                |                        |
| <b>Maintenance-of-Way Fee</b>                  | <b>2,085,311</b>                    | <b>1,784,033</b>                   | <b>301,278</b>                                    | <b>16.9%</b>   | <b>1,906,284</b>       |
| <b><u>Administration &amp; Services</u></b>    |                                     |                                    |                                                   |                |                        |
| Ops Salaries & Benefits                        | 836,353                             | 1,008,728                          | (172,375)                                         | (17.1%)        | 731,986                |
| Ops Non-Labor Expenses                         | 269,556                             | 261,776                            | 7,780                                             | 3.0%           | 307,241                |
| Indirect Administrative Expenses               | 931,117                             | 879,745                            | 51,372                                            | 5.8%           | 415,877                |
| Ops Professional Services                      | 0                                   | 7,585                              | (7,585)                                           | (100.0%)       | 3,562                  |
| <b>Subtotal Administration &amp; Services</b>  | <b>2,037,026</b>                    | <b>2,157,834</b>                   | <b>(120,808)</b>                                  | <b>(5.6%)</b>  | <b>1,458,666</b>       |
| <b><u>Insurance Expense (Recoveries)</u></b>   |                                     |                                    |                                                   |                |                        |
| Liability/Property/Auto/Misc                   | 104,450                             | 104,450                            | 0                                                 | 0.0%           | 104,460                |
| Net Claims / SI                                | 9,250                               | 9,250                              | 0                                                 | 0.0%           | 0                      |
| Claims Administration                          | 5,000                               | 5,000                              | 0                                                 | 0.0%           | 0                      |
| <b>Subtotal Insurance Expense (Recoveries)</b> | <b>118,700</b>                      | <b>118,700</b>                     | <b>0</b>                                          | <b>0.0%</b>    | <b>104,460</b>         |
| <b>Total Operating Expenses</b>                | <b>18,910,040</b>                   | <b>18,202,622</b>                  | <b>707,418</b>                                    | <b>3.9%</b>    | <b>15,971,840</b>      |
| CFR Compliance                                 | 0                                   | 16,332                             | (16,332)                                          | (100.0%)       | 0                      |
| <b>Total Expenses</b>                          | <b>18,910,040</b>                   | <b>18,218,954</b>                  | <b>691,086</b>                                    | <b>3.8%</b>    | <b>15,971,840</b>      |
| <b>Loss/Member Support Required</b>            | <b>(18,340,315)</b>                 | <b>(17,529,446)</b>                | <b>(810,869)</b>                                  | <b>4.6%</b>    | <b>(15,260,175)</b>    |

**Cash flow**

|              | FY27              | FY28              | FY29              | FY30              | FY31             |
|--------------|-------------------|-------------------|-------------------|-------------------|------------------|
| <b>Arrow</b> |                   |                   |                   |                   |                  |
| SGR          | \$ 154,584        | \$ 300,200        | \$ 325,350        | \$ 300,300        | \$ 50,100        |
| New Capital  | \$ 773,526        | \$ 699,585        | \$ 524,689        | \$ 127,200        | \$ -             |
| <b>Total</b> | <b>\$ 928,110</b> | <b>\$ 999,785</b> | <b>\$ 850,039</b> | <b>\$ 427,500</b> | <b>\$ 50,100</b> |

Note: Numbers may not foot due to rounding



|               |       |       |             |           |           |        |                  |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              | FUNDINGS |      |      |           |      |       |
|---------------|-------|-------|-------------|-----------|-----------|--------|------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|------|------|-----------|------|-------|
| PROJECT #     | TYPE  | ROUTE | SUBDIVISION | MILEPOSTS | CONDITION | IMPACT | ASSET TYPE       | PROJECT                                                   | SCOPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT COST | METRO    | OCTA | RCTC | SBCTA     | VCTC | OTHER |
| 3449          | Rehab | Arrow | Redlands    | n/a - n/a | Marginal  | Low    | Business Systems | FY27 Annual Systemwide PTC Onboard Rehabilitation Program | For PTC Onboard team who oversee the PTC onboard hardware and software on SCRRA locomotives, cab car and multiple unit fleet. The systemwide PTC Onboard rehabilitation program encompasses a range of onboard systems and components to ensure they are maintained in a state of good repair. This includes power supplies and regulators; communication systems such as PTC 220 MHz radios, cellular modems, Wi-Fi, antennas, and filters; onboard computers (Train Management Computer); the cab display unit (CDU); event recorder; GPS; axle generators and speed sensors; test equipment to validate new functionalities; and other supporting technologies installed across the Metrolink fleet. Collectively, these systems support daily train operations and ensure safe, reliable PTC functionality—critical for safety critical service, as trains cannot operate without PTC and are reduced in speed when PTC fails en-route. a program that is part of the larger Metrolink Rehabilitation Plan (MRP), which provides a comprehensive evaluation of the condition, maintenance, useful life, and necessary overhauls of Metrolink’s rail system assets. The MRP helps prioritize and guide rehab and improvement projects, as well as shape funding requests to member agencies to make sure the system remains safe and reliable for the next 25 years. It also helps address the backlog of aging systems—caused by past funding not fully meeting needs—and ensures there’s consistent year-to-year funding to keep assets in good working order. | \$501,000    | \$0      | \$0  | \$0  | \$501,000 | \$0  | \$0   |
| SGR TOTAL     |       |       |             |           |           |        |                  |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$501,000    | \$0      | \$0  | \$0  | \$501,000 | \$0  | \$0   |
| PROJECT COUNT |       |       |             |           |           |        |                  |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1            |          |      |      |           |      |       |



## PROJECT : FY27 ANNUAL SYSTEMWIDE PTC ONBOARD REHABILITATION PROGRAM

| SCOPE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |           |       |     | TYPE: SGR   MRP                                                                                                                                                                                              |          |          |          |          |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|-----------|
| For PTC Onboard team who oversee the PTC onboard hardware and software on SCRRA locomotives, cab car and multiple unit fleet. The systemwide PTC Onboard rehabilitation program encompasses a range of onboard systems and components to ensure they are maintained in a state of good repair. This includes power supplies and regulators; communication systems such as PTC 220 MHz radios, cellular modems, Wi-Fi, antennas, and filters; onboard computers (Train Management Computer); the cab display unit (CDU); event recorder; GPS; axle generators and speed sensors; test equipment to validate new functionalities; and other supporting technologies installed across the Metrolink fleet. Collectively, these systems support daily train operations and ensure safe, reliable PTC functionality—critical for safety critical service, as trains cannot operate without PTC Mile Posts: n/a<br>Division: Redlands    County: SB    Asset Type: Business Systems |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| OBJECTIVES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |           |       |     | RISKS CAUSING PROJECT DELAY                                                                                                                                                                                  |          |          |          |          |           |
| 1. (Goal 3: Invest in People and Assets) Maintain State of Good Repair<br>2. (Goal 1: Ensure a Safe Operating Environment) Reduce train accidents<br>3. (Goal 1: Ensure a Safe Operating Environment) Reduce train accidents<br>4. (Goal 1: Ensure a Safe Operating Environment) Reduce train accidents<br>5. (Goal 1: Ensure a Safe Operating Environment) Reduce train accidents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |       |     | 1. Condition of Asset..... Marginal<br><br>2. System Impact..... Average<br><br>Racking was based of hardware life cycle, usage and probability of hardware going down based of events reported in the field |          |          |          |          |           |
| JUSTIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| The Train Control Systems rehabilitation outlined in the Metrolink Rehabilitation Plan (MRP) includes both Positive Train Control (PTC) and centralized train control systems and equipment. This need has been identified due to these assets falling below the State of Good Repair, as defined by SCRRA staff and industry standards. Some PTC hardware is already over 10 years old, with initial designs dating back an additional five years. Our onboard systems, first implemented in 2012, were cutting-edge at the time but now require updated hardware to maintain functionality and operational efficiency.                                                                                                                                                                                                                                                                                                                                                      |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| RISK CREATED BY NON-IMPLEMENTATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| If the program is not implemented in full, the remaining work that is beyond the rehabilitation limits will be added to the backlog in future years.<br><br>Current Age: 6 Year(s)    Standard Lifespan: 15 Year(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| BUDGET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |           |       |     | CASH FLOW                                                                                                                                                                                                    |          |          |          |          |           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | AMOUNT    | START | END | FY                                                                                                                                                                                                           | Q1       | Q2       | Q3       | Q4       | TOTAL     |
| CONTRACT PACKAGING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \$0       |       |     | 2027                                                                                                                                                                                                         | \$0      | \$0      | \$0      | \$25,050 | \$25,050  |
| DESIGN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | \$200,000 |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| ENVIRONMENTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | \$0       |       |     | 2028                                                                                                                                                                                                         | \$25,050 | \$25,050 | \$25,050 | \$25,050 | \$100,200 |
| ROW ACQUISITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$0       |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| MATERIAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$160,000 |       |     | 2029                                                                                                                                                                                                         | \$43,838 | \$43,838 | \$43,838 | \$43,836 | \$175,350 |
| CONSTRUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$0       |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| SPECIAL RAIL EQUIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | \$0       |       |     | 2030                                                                                                                                                                                                         | \$37,575 | \$37,575 | \$37,575 | \$37,575 | \$150,300 |
| FLAGGING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$0       |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| BUS BRIDGES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$0       |       |     | 2031                                                                                                                                                                                                         | \$12,525 | \$12,525 | \$12,525 | \$12,525 | \$50,100  |
| CLOSE OUT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$0       |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| DBE/LABOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$0       |       |     | 2032                                                                                                                                                                                                         | \$0      | \$0      | \$0      | \$0      | \$0       |
| PROJECT MANAGEMENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |           |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| * P.M STAFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$53,000  |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| * SUPPORT STAFF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | \$0       |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| * CONSULTANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$50,000  |       |     | Cash Flow is constructed based on overall % of project completion as determined by project management office. 1st year = 5%; 2nd year = 35%; 3rd year = 30%; 4th year = 30%                                  |          |          |          |          |           |
| CONTINGENCY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | \$38,000  |       |     |                                                                                                                                                                                                              |          |          |          |          |           |
| TOTAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | \$501,000 |       |     |                                                                                                                                                                                                              |          |          |          |          |           |

**FY2026-27 State of Good Repair Carryover Projects**

(000's)

| Subdivision        | Category      | Project Number | ARROW        | Total        |
|--------------------|---------------|----------------|--------------|--------------|
| Redlands Sub       | Rolling Stock | \$525          | \$130        | \$130        |
| Redlands Sub       | Train Control | \$526          | \$500        | \$500        |
| <b>Grand Total</b> |               |                | <b>\$630</b> | <b>\$630</b> |

## FY2026-27 New Capital Carryover Projects

(000's)

| SUBDIVISION        | CATEGORY          | PROJECT | ARROW          | TOTAL<br>CARRYOVER |
|--------------------|-------------------|---------|----------------|--------------------|
| Redlands Sub       | Facilities        | 425460  | \$376          | \$376              |
| Redlands Sub       | Facilities        | 426460  | \$360          | \$360              |
| Redlands Sub       | IT                | 425440  | \$1,325        | \$1,325            |
| Redlands Sub       | Non-Revenue Fleet | 626450  | \$64           | \$64               |
| <b>Grand Total</b> |                   |         | <b>\$2,125</b> | <b>\$2,125</b>     |



# METROLINK

## Proposed FY27 Arrow Service Budget Review



# Agenda

- FY27 Arrow Service Budget Assumptions
- Proposed FY27 Arrow Service Operating Budget
- Proposed FY27 Arrow Service Capital Program Budget



# **Proposed FY27 Operating Budget Assumptions**

## **Service Level:**

- Current Arrow Service Schedule

## **Revenue:**

- Revenue / Ridership based on Updated Sperry Capital / KPMG Forecast
- No Fare Increases
- Student/Youth Discount 50% (No Student Ride Free Program)

## **Expenses:**

- Contractor Increases only as Mandated by Agreements

# Operating Budget

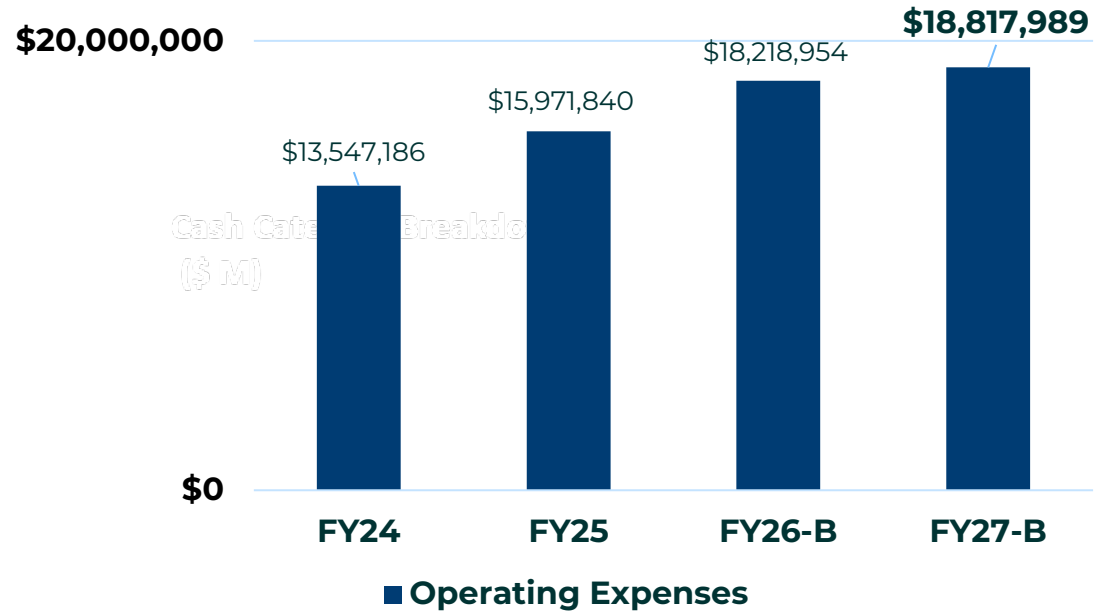


# Proposed FY27 Arrow Service Operating Budget Summary

- Operating Revenue - **\$0.6M**
  - Decrease from FY26 of **\$0.1M** or **(11.8%)**
- Total Expenses - **\$18.8M**
  - Increase from FY26 of **\$0.6M** or **3.3%**
- Member Agency Support - **\$18.2M**
  - Increase from FY26 of **\$0.7M** or **3.9%**



# Operating Expenses FY24 – FY27

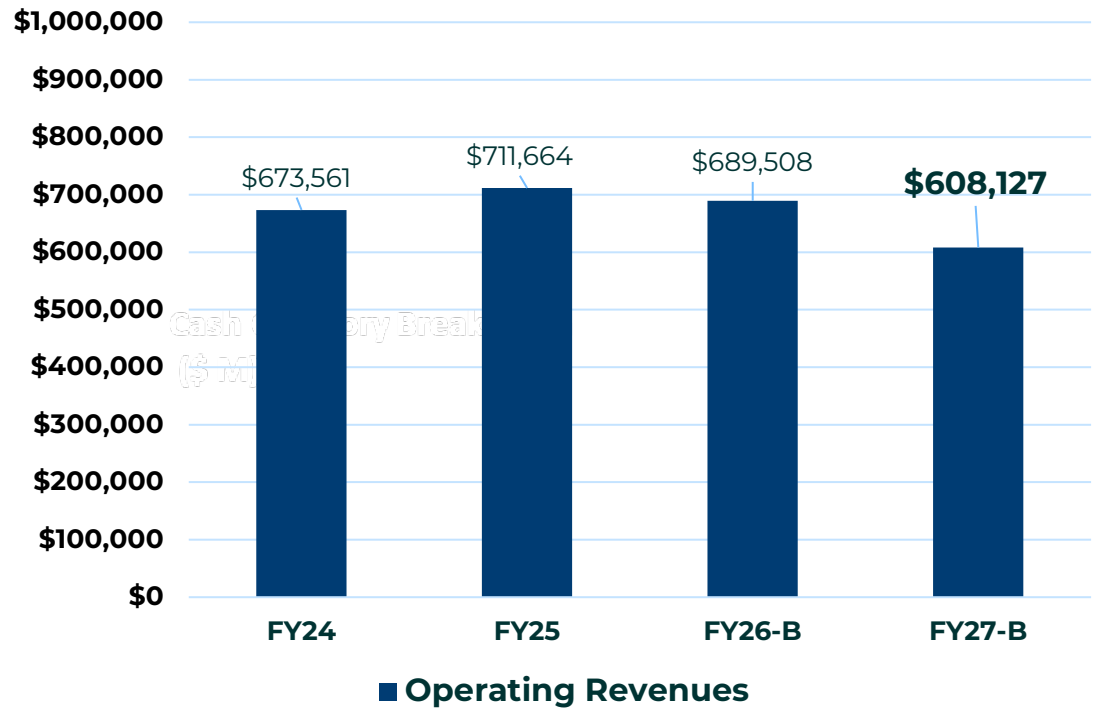


## Notes:

- FY24 & FY25 Actuals
- FY26 & FY27 Budgets not Actuals

Operating  
Revenues  
FY24 – FY27

# Operating Revenues FY24 – FY27



- Note:**
- FY24 & FY25 Actuals
  - FY26 & FY27 Budgets not Actuals

# New Capital Program Budget

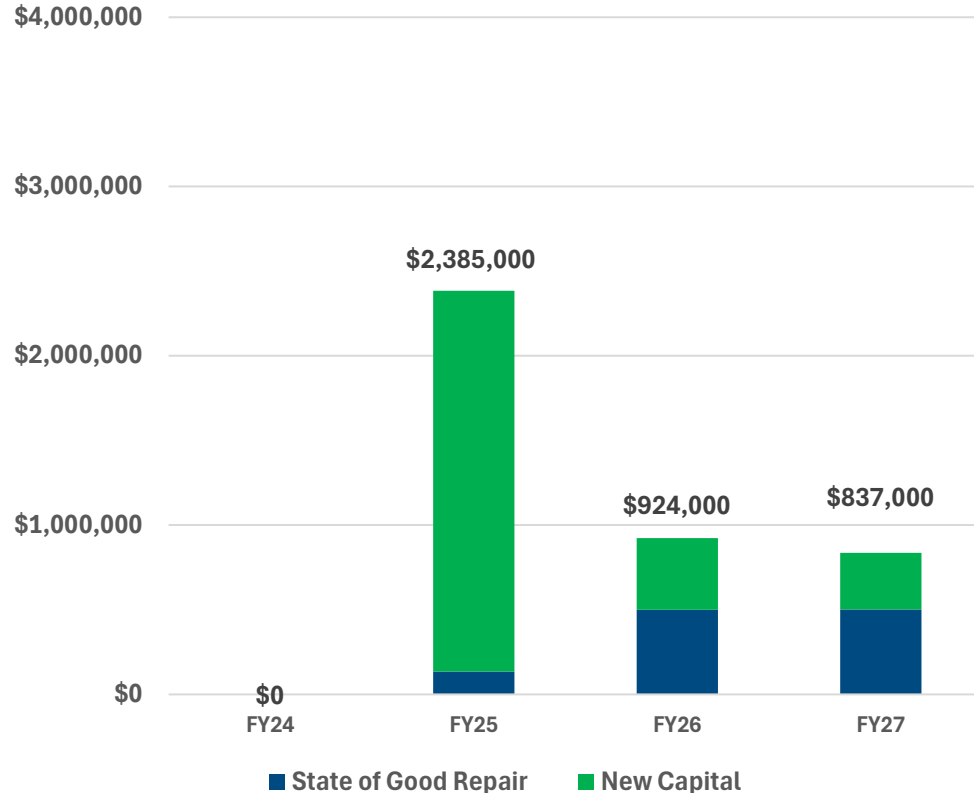


**METROLINK**

# Proposed FY27 Arrow Service Capital Program Overview

- State of Good Repair - **\$0.50M**
  - The amount is the same last year
- New Capital - 0.30M
  - A portion of the PTV Training Center

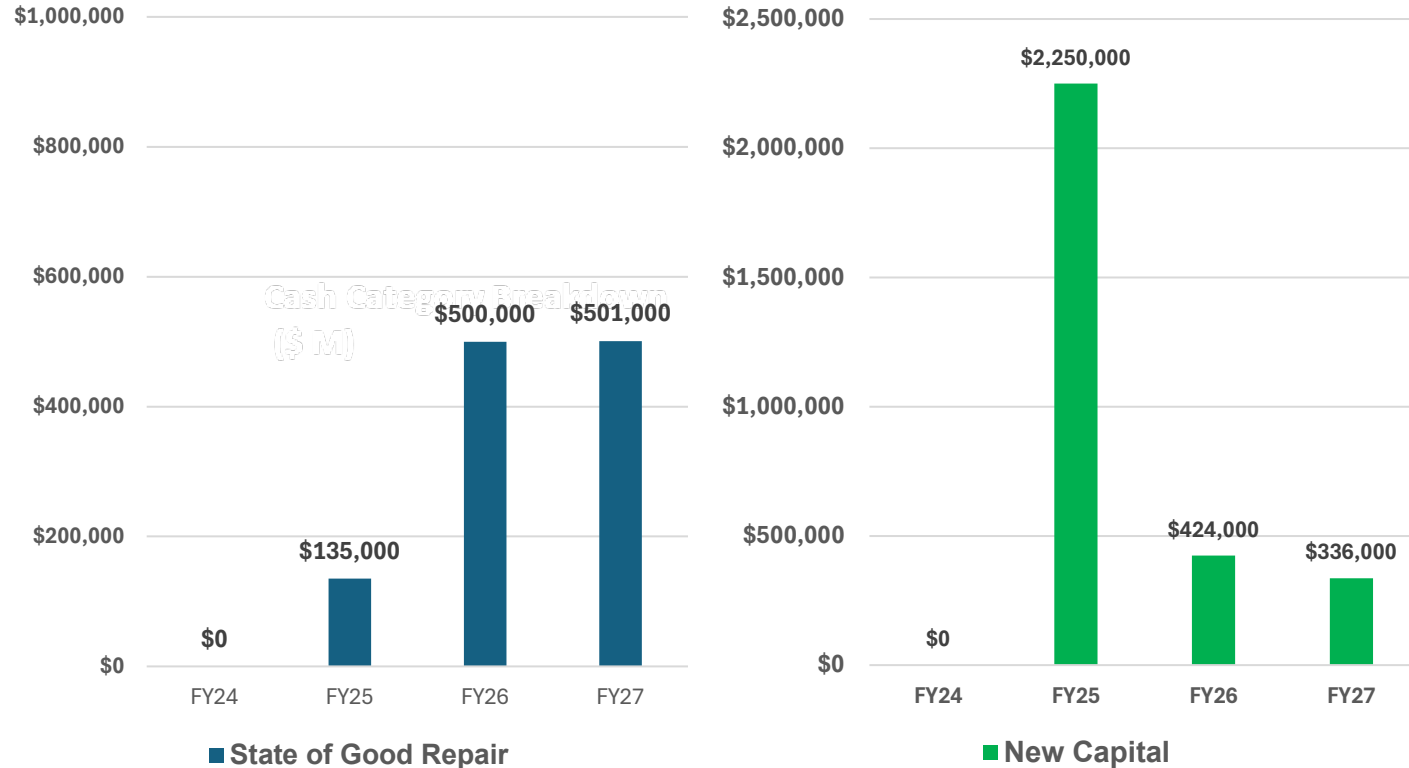
# Proposed FY27 Arrow Service Capital Program FY24 – FY27 State of Good Repair & New Capital



**FY27 Capital  
Program  
FY24 – FY27**  
*- SGR*  
*- New Capital*

# Proposed FY27 Arrow Service Capital Program FY24 – FY27 State of Good Repair & New Capital

**FY27 Capital  
Program  
FY24 – FY27  
- SGR  
- New Capital**





**Thank you! Questions?**



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

ITEM ID: 2026-317-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Tom Schamber, Chief Financial Officer

SUBJECT: FY27 Budget Development Update

**Issue**

Staff will provide an update on the status of development of the FY27 Budget.

**Recommendation**

Receive and file.

Prepared by: Tom Schamber, Chief Financial Officer

Approved by: Tom Schamber, Chief Financial Officer

**Attachment(s)**

[Presentation - FY27 Budget Development Update](#)





# METROLINK

## FY27 Budget Development Update



# FY27 Metrolink Budget Development Status

METROLINK







**Thank you! Questions?**

## ITEM 8A.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-317-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** FY27 Budget Development Update

### **Issue**

Staff will provide an update on the status of development of the FY27 Budget.

### **Recommendation**

Receive and file.

Prepared by: Tom Schamber, Chief Financial Officer

Approved by: Tom Schamber, Chief Financial Officer

### **Attachment(s)**

[Presentation - FY27 Budget Development Update](#)





# METROLINK

## FY27 Budget Development Update



# FY27 Metrolink Budget Development Status

METROLINK







**Thank you! Questions?**

[metrolinktrains.com/meeting](https://metrolinktrains.com/meeting)

**ITEM ID:** 2026-227-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Justin Fornelli, Chief, Program Delivery

**SUBJECT:** Multiple Unit (MU) Implementation Plan Final Report

### **Issue**

In 2022 the San Bernardino County Transportation Authority (SBCTA) and Los Angeles County Metropolitan Transportation Authority (Metro) commissioned the Authority to develop a Multiple Unit (MU) Implementation Plan identifying the necessary steps and associated costs to implement a blended service of MUs and Locomotive Hauled Coaches (LHCs) on the San Bernardino Line (SBL) and Antelope Valley Line (AVL). The Final Report summarizes the analysis undertaken, conclusions, approach to implementing a blended service and a possible MU Pilot Plan.

### **Recommendation**

Receive and file.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Advancing Key Regional Goals:** We will grow the role of regional rail in addressing climate change, air quality, and other pressing issues by advancing toward zero emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for all communities throughout Southern California. The Multiple Unit Implementation Plan addresses opportunities for replacing diesel powered trainsets with zero emission MUs as part of a blended service throughout the San Bernardino and Antelope Valley lines.



## **Background**

Prior to the MU Implementation Plan, a Hybrid Rail Study was completed in 2018 by the Authority, Metro and SBCTA analyzing the feasibility and general operating parameters for supplementing or converting existing Metrolink service on the San Bernardino Line with service operated by MU vehicles. The focus of the Study was to reduce operating costs for rail service in the corridor and providing more frequent service to a convenient schedule for customers.

Since the study, Diesel Multiple Units (DMUs) and a hydrogen fuel cell/battery Zero-Emission Multiple Unit (ZEMU) are now in revenue service operation between the University of Redlands and the San Bernardino Transit Center (“Arrow” service). Further, the Authority was awarded grant funding for the Southern California Optimized Rail Expansion (SCORE) Program which requires service frequencies be increased on the San Bernardino Line with a focus on achieving 30-min all day bi-directional service.

The Authority has undertaken a Service Growth Development Plan, received by the Board on July 26, 2024, with a Final Report on February 27, 2026, focusing on how service will evolve and grow by 2028 and beyond. The Service Plan addresses proposed schedules, crew and equipment cycles, and ridership forecasts.

In 2020, Metro was awarded California Transit and Intercity Rail Capital Program (TIRCP) grant funding, of which \$10M was made available for the Authority to implement a MU Pilot Program on the Valley Subdivision. The funding was however insufficient to allow the Authority to procure a MU train set, or to make the necessary infrastructure modifications to allow MU operation on the Valley Sub.

In September 2022 SBCTA and Metro commissioned the Authority to develop the Multiple Unit (MU) Implementation Plan, as a next step stemming from the Hybrid Rail Study. The purpose of the Plan was to identify the specific necessary steps and associated costs to implement a blended service of Multiple Units (MUs) and Locomotive Hauled Coaches (LHCs) on the San Bernardino Line (SBL) and Antelope Valley Line (AVL), based on a 30 minute all day, bi-directional service plan and associated ridership demand. The Authority developed a scope for the Plan, which was reviewed and approved by Metro and SBCTA.

Generally, the original scope included the following items:

- Service Plan Development
- Infrastructure Improvements
- Signal system enhancements to ensure system shunting compliance for MUs, and
- Operations and Maintenance Cost and Benefit Comparisons between MU and LHC equipment.

Analysis commenced in September 2023, with regular coordination and project development meetings held between SBCTA, Metro, and Authority staff throughout the development of the Plan. Through these coordination meetings, all the stakeholders approved the appropriate service plans and other assumptions utilized in the development of the Plan. The Draft Final Plan Report was completed in December 2024, summarizing the analysis undertaken, results, recommendations and subsequent conclusions. SBCTA and Metro staff provided comments and recommendations in February 2025, with the Final version of the Report released on April

11, 2025 to SBCTA, Metro, and Caltrans staff.

Upon review of the Final Report in April 2025, the stakeholders identified the need to include additional scope items. These included an assessment of utilizing ZEMUs recently procured by the State of California, addressing how a MU Pilot project could be implemented on both the AVL and SBL, further analysis to be undertaken into fleet-wide LHC and ZEMU vehicle acquisition costs, analysis of operational safety implications for use of hydrogen vehicles in tunnels and consideration of the EMF and alternative locations for the maintenance of Caltrans FLIRT sets on the SBL.

The State has commissioned Stadler to manufacture and supply ten 4-car FLIRT ZEMU sets, each of which is a longer design with a higher seating capacity than the current Arrow MU train sets, with the first FLIRT expected to be available in 2028. Only very limited specifications for these sets were available at the time of the original analysis and so they had not been considered.

Further analysis commenced in September 2025 to address the additional scope items listed above. Monthly stakeholder meetings were held, attended by representatives from SBCTA, Metro and the State, to present and discuss findings, respond to stakeholder questions and universally agree between all parties the proposed service plan and path to be taken forward through the continued analysis. The revised Draft Final Report was released for stakeholder comment on April 10, 2026. Comments were received and addressed, with a final stakeholder meeting being held on June 25, 2026 and the Final Report released to all parties on July 6, 2026. Individual meetings have been held with each stakeholder to provide detailed review of the Draft Final Report.

## **Discussion**

The analysis for both the SBCTA 5-car ZEMU and the Caltrans 8-car ZEMU, is summarized as follows:

### **1. Service Plan Development:**

- Ridership forecasts based on the 2028 mid-term Strategic Growth Development Plan (SGDP) were assessed for the 5-car SBCTA ZEMU with 282 seats, the 4-car Caltrans ZEMU with 244 seats and a coupled 8-car Caltrans ZEMU set with 488 seats. Analysis determined that ZEMU sets could replace LHC trainset daily cycles for:
  1. SBCTA 5-car Service Plan:
    - SBL: one (1) of twelve (12) daily cycles
    - AVL, three (3) cycles operating “bounce back” service between LAUS and Santa Clarita
  2. Caltrans 8-car Service Plan:
    - SBL, three (3) of twelve (12) daily cycles
    - AVL, all three (3) cycles operating the “bounce back” service can be accommodated with the 4-car ZEMU, with two (2) service cycles between LAUS and Lancaster being met by the ZEMU 8-car seating capacity.
- Conditions on the AVL present operational challenges for ZEMUs:
  1. Grades: Steep grades have the potential to effect on-time performance.

2. Refueling: ZEMUs have reduced range and acceleration compared to diesel LHCs, resulting in more frequent refueling, requiring a 4th trainset to meet the daily “bounce back” cycles. For the 2 service cycles between LAUS and Lancaster, a refueling facility would be required at Lancaster for mid-day refueling.
3. Tunnel 25: The safety protocols for a ZEMU train involved in an incident, require the stored hydrogen to be vented via activated safety valves into the surrounding atmosphere, where the hydrogen quickly dissipates. However, with an incident inside a tunnel the vented hydrogen quickly creates a combustible environment around the train. Tunnel ventilation systems cannot practically clear the hydrogen to reduce the risk. Thus, additional safety assessments would be required to ensure protection of the hydrogen tanks to reduce damage and risk of hydrogen release in an incident inside tunnels. Documentation of engineering controls and operational mitigations to reduce risks would be required.

## 2. Infrastructure improvements:

- Station Platforms:
  1. Level boarding from existing legacy platforms to ZEMUs can be provided using mini-high platforms and bridge plates, as currently provided with LHCs. Ambulatory passenger boarding and alighting on ZEMUs would be accomplished via automatic flip-down steps deployed from the ZEMU vehicle.
  2. Thirteen (13) of the twenty five (25) platforms along the SBL and AVL are too short to accommodate boarding at all doors on an 8-car Caltrans ZEMU. Nine (9) platforms can be extended to accommodate at a cost of \$52.92 million, with four (4) platforms physically constrained. Station and conductor announcements would be required to inform passengers to sit in specific cars, in addition to potential double-spotting of ZEMUs.
  3. Temporary mini-high platforms would be required to accommodate ADA boarding for the Caltrans ZEMU, where ADA accessibility is through different doors than for traditional LHCs for which platform mini-highs are currently configured.
- Maintenance Facilities:
  1. **Arrow Maintenance Facility:** The facility is designed for 2-car ZEMUs and cannot accommodate the Caltrans 4-car ZEMUs. No significant expansion is possible due to property constraints.
  2. **SBL: Eastern Maintenance Facility:** Seven 4-car Caltrans ZEMUs are required. To accommodate the larger ZEMU fleet and expansion of the LHC fleet, a full service maintenance facility accommodating both vehicle types was developed at a cost of \$448.8 million.
  3. **Central Maintenance Facility:** Hydrogen fueling infrastructure for midday refueling of ZEMUs can be accommodated, estimated to cost \$22.2 million. The maintenance areas do not accommodate 4-car ZEMUs, which are permanently coupled.
  4. **Lancaster Facility:** The mixed fleet plan would require five 4-car Caltrans ZEMUs and 6 LHC sets to be stored at Lancaster layover facility, for which there is insufficient room. The Lancaster facility can accommodate infrastructure to support midday hydrogen refueling of ZEMUs.
  5. **AVL: New ZEMU Facility Near Santa Clarita:** A new, full service maintenance facility to accommodate all ten (10) 4-car Caltrans ZEMUs sets required for the AVL service plan was developed at a location close to Santa Clarita Station, providing operational efficiencies. Land acquisition, design and construction costs

are estimated at \$479.3 million. Note that if a mixed fleet plan were implemented for both lines together, heavy maintenance would only be required at one location and so the cost of the other facility could be significantly reduced.

### **3. Signal system enhancements to ensure system shunting compliance for ZEMUs:**

- ZEMU sets are lighter than conventional LHCs and therefore more susceptible to a loss of electrical conductivity between the vehicle wheels and the rail, resulting in the railroad signal system circuitry not recognizing the presence of a ZEMU (not shunting) and failing to operate crossing warning equipment.
- On-board Shunt Enhancement (OSE) has been identified as the preferred solution, consisting of an antenna mounted under the vehicle that induces a current within the track circuit. Testing to demonstrate effectiveness and a “fail-safe” plan in the event of OSE failure would be required prior to use in Metrolink service. Cost estimated at \$200,000 per vehicle.
- The alternative would be to make physical improvements within the right-of-way signal system infrastructure to ensure shunting at a total estimated cost of \$85 million for both the SBL and AVL.

### **4. Operations and Maintenance Cost and Benefit Comparisons between ZEMU and LHC equipment:**

- Costs for the variables of labor, fuel and maintenance were analyzed to estimate costs per train revenue mile (TRM).
- The lower end cost for a 4-car ZEMU is similar to that of a 4-car LHC set. Coupled ZEMU sets cost more to operate through higher operational costs, additional crew requirements, maintenance of additional components and increased fuel demands (***Refer Attachment A - Table 4.1 Cost Per Revenue Service Mile Comparison***).
- Application of cost per TRM to the blended operating service plans provides annual cost scenarios (***Refer Attachment A - Table 4.2 Blended Operating Service (Caltrans ZEMU) Annual Costs and Table 4.3 Blended Operating Service (SBCTA ZEMU) Annual Costs***).

### **5. Mixed Fleet Vehicle Acquisition Costs:**

- The SGDP, on which future ridership projections are based, requires future fleet expansion that could be accomplished through the purchase of either LHC or ZEMU units.
- Unit cost assumptions priced on recent procurements and escalated to 2026 dollars are:
  - 4-car LHC - \$28.6 million (Locomotive \$13.9 million, Coach \$5 million, Cab Car \$5.6 million)
  - 4-car Caltrans ZEMU Coaches - \$25 million
  - 5-car SBCTA ZEMU - \$25 million
- LHC (locomotives and coaches) may be purchased as individual units and are scalable, where ZEMUs require to be purchased as a continuously coupled set
- Total expansion costs for the blended service scenarios (\$ millions) on both the SBL and AVL combined were calculated (***Refer Attachment A - Table 5.1 Total Expansion Cost for Blended Service on both the SBL and AVL***).

### **6. Caltrans ZEMU Pilot Plan Scenarios:**

- **AVL:** LAUS to Burbank Airport South/Van Nuys – additional service with no gradient issues.
- **SBL:** LAUS to Montclair – direct LHC replacement with a 4-car ZEMU

- Two 4-car Caltrans ZEMU sets, borrowed from Caltrans are assumed
- Temporary light maintenance facility:
  - Keller Yard or Rondout Street (AVL/SBL) – estimated \$15.4 million
  - Railroad Avenue (SBL) – estimated \$15.4 million
- Hydrogen fueling by truck
- On-Board Shunt Enhancement is assumed to be achievable, however initial testing would be required to prove effective shunting prior to revenue service operation
- Total Cost would be \$20.2 million for either the AVL or SBL pilot plan, and similarly \$20.2 million for a combined pilot plan assuming a shared maintenance facility.

## 7. Conclusions:

- The Capital requirements and associated costs for a blended service plan were calculated for both the SBCTA and Caltrans ZEMU service plans (***Refer Attachment A - Table 8.1 Capital Cost Requirement SBCTA ZEMU Service Plan and Table 8.2 Capital Cost Requirement Caltrans ZEMU Service Plan***).
- Additional Considerations:
  - Hydrogen fuel long-term availability and associated cost is unpredictable
  - Luggage from Brightline West transfers at Rancho Cucamonga has not been considered in the assessment of ridership capacity

The Final Report is included as Attachment B.

## **Next Steps**

The Authority will respond to any future requests provided by SBCTA, Metro or the State regarding implementation of ZEMUs on the Metrolink system.

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Approved by: Justin Fornelli, Chief, Program Delivery

## **Attachment(s)**

[Attachment A - MU Implementation Plan - Tables](#)  
[Attachment B - Final Multiple Unit Implementation Plan](#)  
[Presentation - Multiple Unit Implementation Plan](#)



## Multiple Unit (MU) Implementation Plan Final Report

### Attachment A

**Table 4.1 - Cost Per Revenue Mile Comparison**

| Cost Category       | LHC            | ZEMU (2-car)   | ZEMU (4-car)   | ZEMU (5-car)   | ZEMU (8-car)    |
|---------------------|----------------|----------------|----------------|----------------|-----------------|
| Maintenance (low)   | \$15.05        | \$9.25         | \$13.87        | \$14.80        | \$27.74         |
| Maintenance (high)  | \$15.05        | \$15.41        | \$23.12        | \$24.66        | \$46.24         |
| Train Crew          | \$15.40        | \$15.40        | \$15.40        | \$15.40        | \$23.10         |
| Renewable Diesel    | \$10.73        |                |                |                |                 |
| Hydrogen (low)      |                | \$4.95         | \$9.91         | \$12.39        | \$19.82         |
| Hydrogen (high)     |                | \$10.29        | \$20.57        | \$25.72        | \$41.14         |
| <b>Total (low)</b>  | <b>\$41.19</b> | <b>\$29.60</b> | <b>\$39.18</b> | <b>\$42.58</b> | <b>\$70.66</b>  |
| <b>Total (high)</b> | <b>\$41.19</b> | <b>\$41.10</b> | <b>\$59.09</b> | <b>\$65.78</b> | <b>\$110.48</b> |

**Table 4.2 - Blended Operating Service (Caltrans ZEMU) Annual Costs**

| Operating Line               | Vehicle Type  | Annual TRM | O&M per TRM | Annual O&M Cost | Cost Difference from LHC |
|------------------------------|---------------|------------|-------------|-----------------|--------------------------|
| AVL-Lan                      | LHC (4-car)   | 234,396    | \$41.19     | \$9,655,000     | N/A                      |
|                              | ZEMU-8 (low)  | 234,396    | \$70.66     | \$16,563,000    | \$6,908,000              |
|                              | ZEMU-8 (high) | 234,396    | \$110.48    | \$25,897,000    | \$16,242,000             |
| AVL-SC                       | LHC           | 296,514    | \$41.19     | \$12,213,000    | N/A                      |
|                              | ZEMU-4 (low)  | 244,188    | \$39.18     | \$9,568,000     | \$(2,645,000)            |
|                              | ZEMU-4 (high) | 244,188    | \$59.09     | \$14,430,000    | \$2,217,000              |
| SBL                          | LHC (4-car)   | 264,384    | \$41.19     | \$10,890,000    | N/A                      |
|                              | ZEMU-8 (low)  | 264,384    | \$70.66     | \$18,682,000    | \$7,792,000              |
|                              | ZEMU-8 (high) | 264,384    | \$110.48    | \$29,210,000    | \$18,320,000             |
| Total For All Three Services | LHC           | 795,294    | \$41.19     | \$32,758,000    | N/A                      |
|                              | ZEMU (low)    | 742,968    | varies      | \$44,813,000    | \$12,055,000             |
|                              | ZEMU (high)   | 742,968    | varies      | \$69,537,000    | \$36,779,000             |

**Table 4.3 - Blended Operating Service (SBCTA ZEMU) Annual Costs**

| Operating Line               | Vehicle Type  | Annual TRM | O&M per TRM | Annual O&M Cost | Cost Difference from LHC |
|------------------------------|---------------|------------|-------------|-----------------|--------------------------|
| AVL-SC                       | LHC (4-car)   | 296,514    | \$41.19     | \$12,213,000    | N/A                      |
|                              | ZEMU-5 (low)  | 244,188    | \$42.58     | \$10,398,000    | <b>\$(1,815,000)</b>     |
|                              | ZEMU-5 (high) | 244,188    | \$65.78     | \$16,062,000    | \$3,849,000              |
| SBL                          | LHC (4-car)   | 88,128     | \$41.19     | \$3,630,000     | N/A                      |
|                              | ZEMU-5 (low)  | 88,128     | \$42.58     | \$3,753,000     | \$123,000                |
|                              | ZEMU-5 (high) | 88,128     | \$65.78     | \$5,797,000     | \$2,167,000              |
| Total For All Three Services | LHC           | 384,642    | n/a         | \$15,843,000    | N/A                      |
|                              | ZEMU (low)    | 332,316    | n/a         | \$14,151,000    | <b>\$(1,692,000)</b>     |
|                              | ZEMU (high)   | 332,316    | n/a         | \$21,859,000    | \$6,016,000              |



**Table 5.1 – Total Expansion Cost for Blended Service on both the SBL and AVL**

|                                                        | Vehicles<br>in Daily<br>Service | Spare | Total | Existing<br>Fleet | Expansion<br>Need | Unit Cost | Total Cost      |
|--------------------------------------------------------|---------------------------------|-------|-------|-------------------|-------------------|-----------|-----------------|
| <b>SGDP Baseline (LHC Only)</b>                        |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 57                              | 9     | 66    | 60                | 6                 | \$13.90   | \$83.40         |
| Coaches                                                | 228                             | 35    | 263   | 201               | 62                | \$5.00    | \$310.00        |
| Cab Cars                                               | 57                              | 9     | 66    | 57                | 9                 | \$5.60    | \$50.40         |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$443.80        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$48.82         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$492.62</b> |
| <b>Mixed Fleet, SBCTA vehicle</b>                      |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 53                              | 8     | 61    | 60                | 1                 | \$13.90   | \$13.90         |
| Coaches                                                | 216                             | 33    | 249   | 201               | 48                | \$5.00    | \$240.00        |
| Cab Cars                                               | 53                              | 8     | 61    | 57                | 4                 | \$5.60    | \$22.40         |
| 5-Car MUs                                              | 5                               | 2     | 7     | 0                 | 7                 | \$25.00   | \$175.00        |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$451.30        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$49.64         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$500.94</b> |
| Cost Difference                                        |                                 |       |       |                   |                   |           | \$8.33          |
| <b>Mixed Fleet, Caltrans vehicle</b>                   |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 49                              | 8     | 57    | 60                | 0                 | \$13.90   | -               |
| Coaches                                                | 204                             | 31    | 235   | 201               | 34                | \$5.00    | \$170.00        |
| Cab Cars                                               | 49                              | 8     | 57    | 57                | 0                 | \$5.60    | -               |
| 4-Car MUs                                              | 14                              | 3     | 17    | 0                 | 17                | \$25.00   | \$425.00        |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$595.00        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$65.45         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$660.45</b> |
| Cost Difference                                        |                                 |       |       |                   |                   |           | \$167.83        |



**Table 8.1 – Capital Cost Requirements SBCTA ZEMU Service Plan**

| Capital Element                          | AVL                  | SBL                  | Total                  |
|------------------------------------------|----------------------|----------------------|------------------------|
| Vehicles                                 | \$138,750,000        | \$55,500,000         | \$194,250,000          |
| Lang Maintenance Facility                | \$479,336,000        | \$0                  | \$479,336,000          |
| EMF Expansion*                           | \$0                  | \$91,290,000         | \$91,290,000           |
| Midday Fueling Infrastructure            | \$0                  | \$18,054,000         | \$18,054,000           |
| Signaling Modifications                  | \$37,342,000         | \$30,546,000         | \$67,887,000           |
| <i>Subtotal with Signal Improvements</i> | <i>\$655,428,000</i> | <i>\$195,390,000</i> | <i>\$850,817,000</i>   |
| Project Management (4%)                  | \$26,217,000         | \$7,816,000          | \$34,033,000           |
| Project Reserve (20%)                    | \$131,086,000        | \$39,078,000         | \$170,163,000          |
| <b>Total with Signal Improvements</b>    | <b>\$812,730,000</b> | <b>\$242,283,000</b> | <b>\$1,055,014,000</b> |
| OSE Equipment                            | \$1,800,000          | \$720,000            | \$2,520,000            |
| <i>Subtotal with OSE Equipment</i>       | <i>\$619,886,000</i> | <i>\$165,564,000</i> | <i>\$785,450,000</i>   |
| Project Management (4%)                  | \$24,795,000         | \$6,623,000          | \$31,418,000           |
| Project Reserve (20%)                    | \$123,977,000        | \$33,113,000         | \$157,090,000          |
| <b>Total with OSE Equipment</b>          | <b>\$768,659,000</b> | <b>\$205,299,000</b> | <b>\$973,958,000</b>   |

**Table 8.2 – Capital Cost Requirements Caltrans ZEMU Service Plan**

| Capital Element                          | AVL                    | SBL                  | Total                  |
|------------------------------------------|------------------------|----------------------|------------------------|
| Vehicles                                 | \$277,500,000          | \$194,250,000        | \$471,750,000          |
| Lang Maintenance Facility                | \$479,336,000          | \$0                  | \$479,336,000          |
| EMF Expansion*                           | \$0                    | \$448,852,000        | \$448,852,000          |
| Midday Fueling Infrastructure            | \$18,054,000           | \$18,054,000         | \$36,108,000           |
| Signaling Modifications                  | \$54,180,000           | \$30,546,000         | \$84,725,000           |
| Platform Extensions                      | \$38,497,000           | \$14,423,000         | \$52,920,000           |
| <i>Subtotal with Signal Improvements</i> | <i>\$867,566,000</i>   | <i>\$706,125,000</i> | <i>\$1,573,692,000</i> |
| Project Management (4%)                  | \$34,703,000           | \$28,245,000         | \$62,948,000           |
| Project Reserve (20%)                    | \$173,513,000          | \$141,225,000        | \$314,738,000          |
| <b>Total with Signal Improvements</b>    | <b>\$1,075,782,000</b> | <b>\$875,595,000</b> | <b>\$1,951,378,000</b> |
| OSE Equipment                            | \$3,600,000            | \$2,520,000          | \$6,120,000            |
| <i>Subtotal with OSE Equipment</i>       | <i>\$816,987,000</i>   | <i>\$678,100,000</i> | <i>\$1,495,087,000</i> |
| Project Management (4%)                  | \$32,679,000           | \$27,124,000         | \$59,803,000           |
| Project Reserve (20%)                    | \$163,397,000          | \$135,620,000        | \$299,017,000          |
| <b>Total with OSE Equipment</b>          | <b>\$1,013,063,000</b> | <b>\$840,844,000</b> | <b>\$1,853,907,000</b> |

End of Attachment A





# METROLINK

## Final Multiple Unit Implementation Plan

San Bernardino and Antelope Valley Lines

September 2026

Prepared by:



| Revision | Date     | Description                                              |
|----------|----------|----------------------------------------------------------|
| 0        | 12/02/24 | Internal quality control draft                           |
| 1        | 12/06/24 | Initial Draft                                            |
| 2        | 01/03/25 | Revised Draft                                            |
| 3        | 4/11/25  | Final Plan with original service plan                    |
| 4        | 4/10/26  | Draft Plan with additional Caltrans vehicle service plan |
| 5        | 7/06/26  | Final Plan with additional Caltrans vehicle service plan |
| 6        | 9/11/26  | Final Plan with updated EMF cost comparison              |



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## Acronyms and Abbreviations

|          |                                                                                                               |
|----------|---------------------------------------------------------------------------------------------------------------|
| ADA      | Americans with Disabilities Act                                                                               |
| AMF      | Metrolink's Arrow Maintenance Facility located in San Bernardino                                              |
| ATR      | Above Top of Rail                                                                                             |
| AVL      | Antelope Valley Line                                                                                          |
| BUILD    | Better Utilizing Investments to Leverage Development                                                          |
| Caltrans | California Department of Transportation                                                                       |
| CEM      | Crash Energy Management                                                                                       |
| CFR      | Code of Federal Regulation                                                                                    |
| CMF      | Central Maintenance Facility                                                                                  |
| CP       | Control Point                                                                                                 |
| CPUC     | California Public Utilities Commission                                                                        |
| CWD      | Constant warning device                                                                                       |
| DAX      | Downstream adjacent crossing                                                                                  |
| DC       | Direct current                                                                                                |
| DCM      | Design Criteria Manual                                                                                        |
| DMU      | Diesel Multiple Unit Train                                                                                    |
| EC       | Electro Code                                                                                                  |
| EMF      | Metrolink's Eastern Maintenance Facility located in Colton                                                    |
| ES       | Engineering Standard drawing                                                                                  |
| FLIRT    | Stadler's Fast Light Intercity and Regional Train                                                             |
| FRA      | Federal Railroad Administration                                                                               |
| FTA      | Federal Transit Administration                                                                                |
| GCP      | Grade Crossing Predictor                                                                                      |
| GHG      | Greenhouse Gas                                                                                                |
| H2       | Hydrogen                                                                                                      |
| LA       | Los Angeles                                                                                                   |
| LAUS     | Los Angeles Union Station                                                                                     |
| LHC      | Locomotive-Hauled Coach Train (traction power contained in locomotive that pushes or pulls unpowered coaches) |
| LOS      | Loss of shunt                                                                                                 |
| LOSSAN   | Los Angeles – San Diego – San Luis Obispo Rail Corridor                                                       |
| LPP      | Local Partnership Program                                                                                     |

|       |                                                                                             |
|-------|---------------------------------------------------------------------------------------------|
| MP    | Mile Post                                                                                   |
| MU    | Multiple Unit Train (power and traction components spread throughout the cars of the train) |
| NCTD  | North County Transit District                                                               |
| NTD   | National Transit Database                                                                   |
| O&M   | Operations and Maintenance                                                                  |
| OSE   | Onboard Shunt Enhancement                                                                   |
| PSO   | Phase shift overlay                                                                         |
| RFP   | Request for Proposal                                                                        |
| ROW   | Right-of-way                                                                                |
| RTC   | Rail Traffic Controller rail operations simulation software                                 |
| SBCTA | San Bernardino County Transportation Authority                                              |
| SBL   | San Bernardino Line                                                                         |
| SC    | Santa Clarita                                                                               |
| SCCP  | Solutions for Congested Corridors Program                                                   |
| SCORE | Metrolink's Southern California Optimized Rail Expansion Program                            |
| SCRRA | Southern California Regional Rail Authority                                                 |
| SGDP  | Metrolink's Service Growth Development Plan                                                 |
| SMART | Sonoma-Marin Area Rail Transit                                                              |
| TIRCP | State of California Transit and Intercity Rail Capital Program                              |
| TRM   | Train revenue mile                                                                          |
| US    | United States                                                                               |
| VCL   | Ventura County Line                                                                         |
| VHLC  | Vital Logic Controller                                                                      |
| ZEMU  | Zero Emission Multiple Unit Train                                                           |

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# Executive Summary

The Southern California Regional Rail Authority (SCRRA) provides regional rail service in Southern California under the brand Metrolink. Most Metrolink service is operated with locomotive-hauled coaches (LHC) trains, but the system's most recent expansion of the San Bernardino Line (SBL) to Redlands is primarily operated with smaller Multiple Unit (MU) trains. The new service is operated under the "Arrow" banner. As Metrolink expands service in the future, the overall vehicle fleet will need to grow, and this could be accomplished through acquiring a combination of LHC and MU trains. This Multiple Unit Implementation Plan (Plan) evaluates potential opportunities to use MUs for lower ridership trips on the SBL and Antelope Valley Line (AVL), identifies infrastructure improvements needed to enable this service, estimates capital costs for vehicles and infrastructure, and provides a possible roadmap to implementation of MU service on these lines.

## Background

The latest expansion of the Metrolink system, the Arrow service between San Bernardino and Redlands, opened in October 2022 and introduced MU trains to Metrolink's operations. While this was a first for SCRRA, there have been several MUs operated in California including the Sprinter in San Diego County and SMART (Sonoma-Marín Area Rail Transit) in Sonoma and Marin Counties. To build on this growing statewide use of MUs, California Department of Transportation (Caltrans) executed a contract with Stalder in October 2023 to purchase similar MUs for more expansive intercity operation to be utilized throughout the state.

While Metrolink's existing LHC trains consist of a locomotive that powers the train's movement and four to six unpowered two-level cars with passenger seating (coaches), MU trains consist of two or more passenger cars that are connected and operate as a single trainset. The MU propulsion system components distributed among multiple cars rather than concentrated in a separate locomotive. Unlike locomotives and coaches, which can be easily separated for maintenance or to change the number of cars in a trainset, MU cars are semi-permanently attached to each other, making maintenance and train sizing less flexible.

Both Metrolink's LHC fleet and the MUs currently in service use renewable diesel to generate power for electric motors. However, the San Bernardino County Transportation Authority (SBCTA) has acquired a hydrogen (H<sub>2</sub>) fuel cell-battery hybrid FLIRT (Fast Light Intercity and Regional Train) H<sub>2</sub> version that entered service in September 2025 as the nation's first regularly scheduled hydrogen fueled passenger train. Caltrans is also procuring hydrogen powered MUs which are currently in production. The vehicles being produced for Caltrans are 4-car FLIRT H<sub>2</sub> trainsets with slightly longer cars than the Arrow vehicles, seating up to 203 passengers in a more intercity-oriented seating configuration that provides more room between seats and space for luggage, bicycles, and food vending.

MUs present two potential benefits compared to LHC trains. First, on services with lower ridership demand, MUs can provide a more efficient alternative by reducing excess capacity and operating costs compared to locomotive-hauled trains. Second, Zero Emission Multiple Units (ZEMUs), such as hydrogen or battery-electric MUs, provide a path to transition away from technologies with tailpipe emissions. The In-Use Locomotive Regulation approved by the California Air Resources Board in April 2023 required railroads within the state to transition to 100% zero-emission operations by 2047. However, in early 2025, the California Air Resources Board withdrew the requested waiver on



authorization requests that the U.S Environmental Protection Agency had not yet acted on. There is currently no mandated timeline for achieving zero-emission operations.

SCRRA's Rail Fleet Management Plan, adopted in April 2021, included a high-level cost benefit analysis of alternative vehicle types, and found that a mixed fleet of LHCs and MUs could result in operating cost savings, while noting the need for further analysis of the infrastructure and operational considerations assessed in this plan

In February 2026, Metrolink finalized their Service Growth Development Plan (SGDP), which will guide the expansion of service across the system and move away from a service pattern focused solely on peak period commutes into downtown to more balanced regional service that is operated across the day in both directions, serving a broader range of trip types. The SGDP included train schedules for each line and forecasted daily ridership by station pair in 2028. Service expansion will require expansion of Metrolink's vehicle fleet, and MU vehicles could potentially be used as part of the fleet expansion, particularly for trips that are expected to have fewer riders.

The development of this Plan began as an assessment of how to permanently operate MUs like those on the Arrow service on the entire length of the SBL, with SBCTA and Metro as key stakeholders. Given that Metro had received a state grant for operation of an MU pilot on the AVL, they subsequently requested that the AVL also be included in the plan. A draft final plan considering these scenarios was released in January 2025, and final plan was released in April 2025 after stakeholder comments. At the outset of plan development in September 2023, information was only available about the SBCTA FLIRT vehicle used on the Arrow service. In October 2023, Caltrans executed a contract with Stadler to procure four 4-car FLIRT trains, followed by an agreement to purchase an additional six trains in January 2024. After the MU Plan based on the SBCTA vehicle was complete and given the progress in developing the design of the Caltrans vehicle, Caltrans requested that this plan be updated using newly available information for these trains as well as consideration of an SBL pilot scenario in addition to the AVL pilot.

## Service Planning

The following Plan identifies potential opportunities in the SGDP for LHCs to be replaced with MUs by distributing forecasted daily ridership across each train in the proposed future schedule. The SGDP schedules include expanded service using new infrastructure being built as part of Metrolink's Southern California Optimized Rail Expansion (SCORE) program, resulting in more total riders spread over more daily trains.

Ridership by station pairs was used to identify the point at which the train would have the most riders on board and the number of riders (peak load). To account for ongoing impacts of the pandemic on ridership, two ridership scenarios were used, consistent with SCRRA's long-term budget planning: 1) a scenario that assumes no long-term impact to travel demand and 2) an interim scenario (corresponding to 2028) with demand depressed by 35.8 percent of pre-pandemic conditions. For the SBL, projected transfers from future Brightline West high-speed rail service from Las Vegas to Rancho Cucamonga were also included.

The projected peak loads were then compared to the capacity of MU vehicles ranging in two service scenarios: one using a version of the SBCTA FLIRT vehicle with additional passenger cars to create a 5-car trainset and one with the 4-car Caltrans FLIRT vehicle.

Due to Crash Energy Management (CEM) requirements, it was assumed at the outset of this Plan (September 2023) that the model of MU operating on the Arrow service could be articulated up to five

single-level passenger cars with seating for up to 282 riders, in comparison to over 800 seats on a 6-car LHC. To allow passengers and crew to walk through the entire train, a 5-car FLIRT was the longest option considered for the SBCTA FLIRT Service Plan.

Subsequent design development for Caltrans's procurement demonstrates the ability articulate up to six cars in a single set; however, the maximum length that can be coupled while meeting CEM requirements is two 4-car sets, creating an 8-car train with up to 488 seats in a commuter style seating configuration. For the Caltrans FLIRT service plan, additional opportunities to operate MUs using the increased capacity of 8-car sets was explored. Despite the added seating capacity, when two trainsets are connected, there is no access for crews or passengers between the two halves of the train. Furthermore, the length of an 8-car set, approximately 640 feet, would exceed the length of some existing platforms, as discussed further under the capital requirements below.

## SBCTA FLIRT Service Plan

For the SBL, which is currently the busiest Metrolink line, the analysis of ridership projections suggested that under long-term conditions, no LHC trainsets could be replaced with MUs while providing enough seating to accommodate average passenger loads, but one set would be only slightly above capacity on average.

For the Antelope Valley Line, trains that travel the entire length of the line are projected to have passenger loads too high for service with FLIRTs. However, the trains that travel only between Santa Clarita and Los Angeles would have loads that could be accommodated by 5-car FLIRTs under both long-term and interim 2028 conditions.

## Caltrans FLIRT Service Plan

Under the Caltrans FLIRT service plan, the higher capacity of the 8-car MU configuration would be able to accommodate more trips in the service plan than the 5-car SBCTA vehicle. For the SBL, two trainsets would have no trips over capacity, and one would have just one trip slightly over capacity, so three trainsets were carried forward to be replaced with the 8-car MU configurations.

For the AVL, the capacity of a 4-car Caltrans vehicle would be sufficient for all trips operating between Los Angeles Union Station (LAUS) and Santa Clarita. In addition, two trainsets operating along the full length of the line could be replaced by 8-car MU trainsets.

## Operational Considerations

It was assumed that any FLIRT MUs introduced to service on either line would be operated with hydrogen gas, and therefore does not have the same operating range as a diesel LHC trainset. The range for any rail vehicle depends significantly on factors such as ambient conditions, load factors, and grades along a route and these factors are exacerbated with ZEMUs due to the limited fuel capacity of storing fuel in a gaseous state versus a liquid state. For the trains on the SBL and AVL making the full journey on the line, time is available in the schedule for midday refueling, but the original equipment cycles did not provide time for midday refueling of three MU trainsets operating between LAUS and Santa Clarita. To account for this, a modified equipment cycle using one additional MU trainset was developed that alleviates the need for midday refueling of the FLIRT trainsets providing the truncated service. While detailed simulations have not been conducted for the Caltrans procurement, the Caltrans vehicles have additional battery and hydrogen fuel storage compared to

the SBCTA vehicles, which may alleviate need for midday refueling, but it is conservatively assumed that range would be similar for both vehicles.

Furthermore, the FLIRT model used for the Arrow service has a lower power to weight ratio than LHCs and would take more time to climb the steep inclines along the AVL due to slower acceleration. To provide reliable service, adjustments to the customer-friendly “every 30-minutes clock face” pattern would be needed, or the vehicle procurement would need to specify redesign of the trains with increased performance. Specific performance specifications of the Caltrans vehicle were not available at the time of analysis to determine the feasibility of that vehicle to achieve the schedule, and modification may be needed to that design as well.

## Alternative Service Plans

This Plan was based on replacement of LHCs with MUs like for like in the future SGDP schedule. However, it does not preclude alternative service patterns in the future, such as operation of MUs on lines other than the SBL and AVL or increased frequency beyond what is envisioned in the SGDP. In addition to the types of fleet-related costs assessed in this plan, these alternative service patterns may require additional track investment.

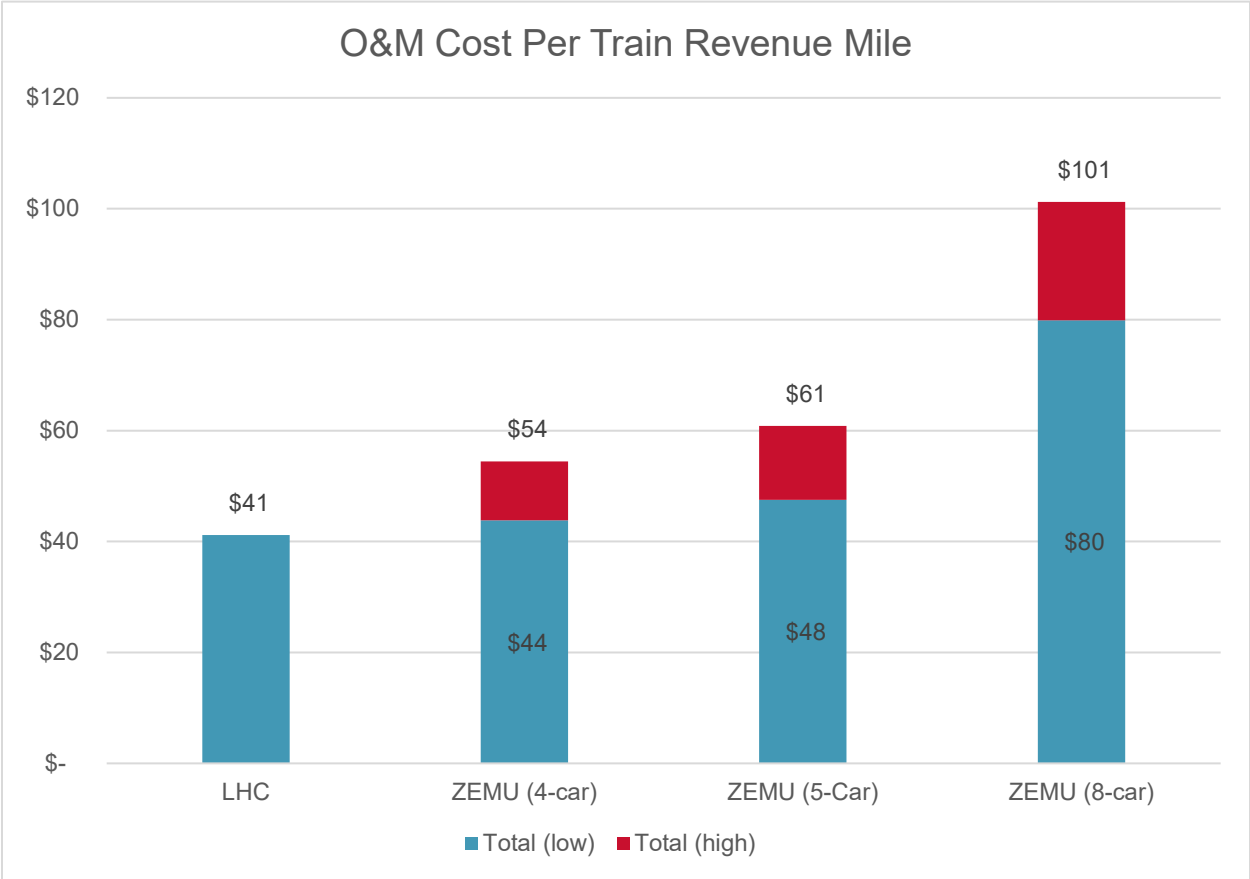
## Operating and Maintenance Costs

A comparison of ongoing operating and maintenance costs for MUs and LHCs was conducted using actual cost data for Metrolink LHC and Arrow MU operations. Hydrogen fuel prices developed utilizing actual prices paid by California bus agencies, and assumptions regarding scaling of costs from 2-car to larger trainsets. This analysis focuses on three cost categories that vary by vehicle type: crew labor, fuel, and vehicle maintenance.

Uncertainties around hydrogen fuel pricing and the costs of maintaining a new hydrogen-fueled fleet requiring different skills and tools than a diesel fleet, and the potential for economies of scale as the MU fleet grows all contribute to a wide range of potential operating costs for ZEMUs. Hydrogen costs vary by more than a factor of two among California transit agencies. This causes total ZEMU fuel costs to fluctuate significantly under both low and high fuel price scenarios. Additionally, vehicle maintenance costs vary widely among other MU operators in California, making long term budget planning difficult.

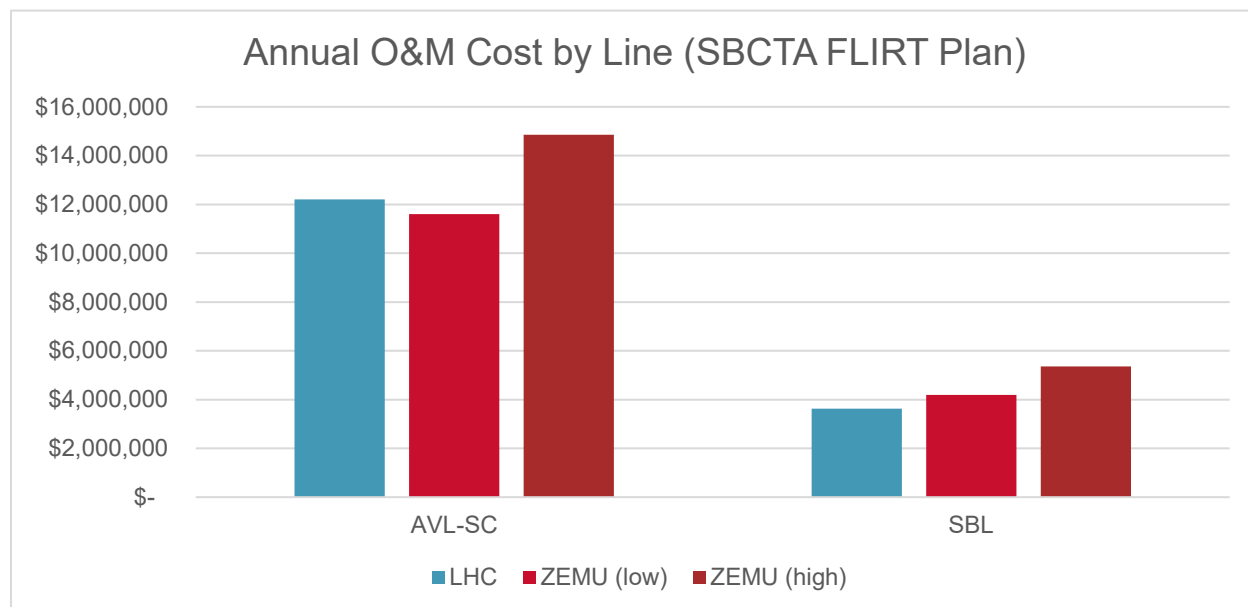
The estimated cost per Train Revenue Mile (TRM) for each FLIRT configuration is shown in the graph below in comparison to actual costs for existing LHC operations based on Metrolink’s budget. While the 2-car Arrow service is less expensive to operate than a traditional LHC, as ZEMUs increase in length they can become more expensive to operate and maintain than traditional diesel LHCs. The low end of the estimated range for 4-car and 5-car MUs, which assumes competitive hydrogen and improved maintenance cost efficiency with a larger fleet, is comparable to existing diesel LHC, with 4-car sets showing potential operating cost savings. However, the high end of the range is significantly higher, primarily due to hydrogen fuel prices and higher maintenance requirements. When coupling multiple MU vehicles together to accommodate larger passenger loads, additional crew costs, maintenance requirements and fuel consumption all make MUs more costly to operate than existing diesel LHCs.

Figure ES-1. O&M Cost (Crew Labor, Fuel, and Vehicle Maintenance) per Train Revenue Mile

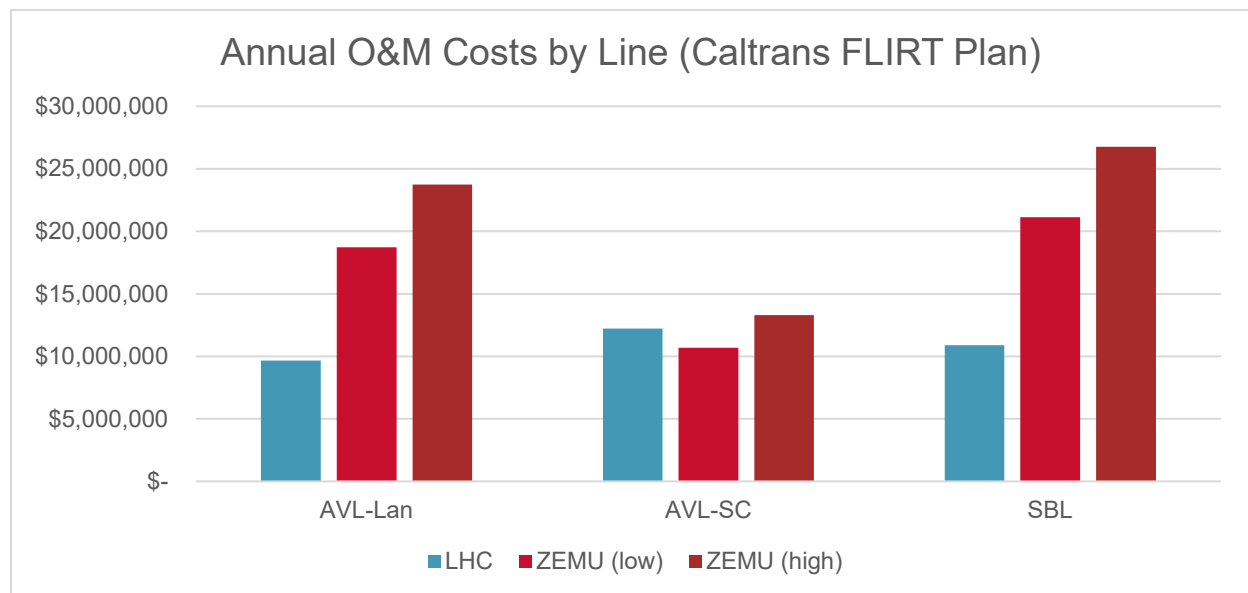


The estimated annual O&M (operations and maintenance) costs for each service scenario are shown in the chart below. The analysis also finds that 4- and 5-car ZEMUs operating on the Antelope Valley Line’s Santa Clarita service could reduce operating costs compared to LHCs, but this result is driven largely through elimination of non-revenue train movements enabled by a new outlying maintenance facility, not by inherent cost advantages of ZEMU technology. In contrast, on the San Bernardino Line, operating 5-car ZEMUs would increase O&M costs by a minimal \$123,000 per year in the low scenario and up to \$2.2 million per year in the high cost scenario. For 8-car trains operating along the length of each line, costs are estimated to increase by \$7 to \$16 million on the Antelope Valley Line and \$8 to \$18 million on the San Bernardino Line.

**Figure ES-2. Annual O&M Cost Difference from LHC Baseline by Service (SBCTA FLIRT Plan)**



**Figure ES-3. Annual O&M Cost Difference from LHC Baseline by Service (Caltrans FLIRT Plan)**



## Capital Requirements and Costs

The proposed service plans require the acquisition of new MU vehicles and modifications to existing infrastructure. The mixed fleet service plan with SBCTA vehicles calls for a total of seven 5-car FLIRTs, five for the AVL and two for the SBL. The Caltrans vehicle service plan calls for 17 4-car FLIRTs, 10 for the AVL and seven for the SBL.

Secondly, the new vehicles will need a place for overnight storage, maintenance, and fueling. For the SBL, this could occur through expansion of the existing Eastern Maintenance Facility (EMF) to

accommodate MU maintenance and storage, but modifications would be required to accommodate the differences in vehicle type and fuel source. For the initial SBCTA FLIRT service plan, a concept was developed to provide for maintenance and storage of two MUs by reusing the existing parts storage area, without consideration of any additional service and storage needs for LHCs. For the Caltrans FLIRT service plan, a concept was developed to overhaul the site as a full-service facility for maintenance and storage of an expanded fleet of both MUs and LHCs.

For the AVL, a new facility near Control Point (CP) Lang just past Santa Clarita is proposed. The costs below assume that a full service maintenance facility is constructed for each line, but if mixed service is implemented for both lines, one facility could serve as the primary maintenance site, and not all functions would be required in the secondary facility, presenting opportunity for value engineering as the projects progress.

In addition, being of lower weight and having fewer axles, the MU vehicles interact differently with the automated signaling system, which necessitates modifications to preserve safe operating conditions. Onboard shunt enhancement (OSE) technology that can be installed on the vehicles themselves to enhance train detection. OSE has been used successfully in Europe and is currently being tested in the United States. The testing has shown the OSE technology to improve the shunting, and it is possible that this shunting improvement could be enough to not require the other identified signal enhancements. While installing the OSE is the most economical shunting solution, the specific OSE equipment must be designed for the MU vehicle, vehicles must be tested with the equipment to confirm shunting issues are addressed, and operational fail safe procedures must be developed in case of OSE failure.

Lastly, 8-car MU configurations would exceed the length of some existing platforms, and not all doors would be able to open at some stations. To address this, platform extensions are recommended at eight stations for the mixed-fleet plan using Caltrans vehicles, and cost estimates are included in the table below. For four additional stations, it was determined that platform extensions would be infeasible due to site constraints. At these stations, passengers would not be able to board or detrain from all cars on the train without double spotting. Double spotting would entail stopping the train at the station, opening doors to allow passengers on and off, then closing the doors to reposition the train, and then stop a second time to open different doors, thus increasing the length of time a train spends at station and causing delays to the schedule. Boarding and detraining passengers only from certain cars would require clear communication with the public regarding which cars are accessible (the first car for handicapped passengers and at least the first three for other passengers at all stations) and could result in crowding of specific cars within a train. If trains were double spotted, the additional time required to serve stations would degrade on-time performance. At El Monte and Baldwin Park, operation of 8-car MUs would also result in additional gate-down time as the trains would block adjacent grade crossings while stopped at the station.

The total estimated capital cost to implement MU service under the SBCTA vehicle and Caltrans vehicle scenarios are shown in Table ES-1 and Table ES-2, respectively.



**Table ES-1. Summary of Capital Costs, SBCTA Vehicle Service Plan (2026 dollars)**

| Capital Element               | AVL                  | SBL                  | Total                |
|-------------------------------|----------------------|----------------------|----------------------|
| Vehicles                      | \$138,750,000        | \$55,500,000         | \$194,250,000        |
| Lang Maintenance Facility     | \$479,336,000        | \$0                  | \$479,336,000        |
| EMF Expansion*                | \$0                  | \$91,290,000         | \$91,290,000         |
| Midday Fueling Infrastructure | \$0                  | \$18,054,000         | \$18,054,000         |
| OSE Equipment                 | \$1,800,000          | \$720,000            | \$2,520,000          |
| <i>Subtotal</i>               | <i>\$619,886,000</i> | <i>\$165,564,000</i> | <i>\$785,450,000</i> |
| Project Management (4%)       | \$24,795,000         | \$6,623,000          | \$31,418,000         |
| Project Reserve (20%)         | \$123,977,000        | \$33,113,000         | \$157,090,000        |
| <b>Total</b>                  | <b>\$768,659,000</b> | <b>\$205,299,000</b> | <b>\$973,958,000</b> |

\*Cost does not account for any expansion needed to support a larger LHC fleet

**Table ES-2. Summary of Capital Costs, Caltrans Vehicle Service Plan (2026 dollars)**

| Capital Element               | AVL                    | SBL                  | Total                  |
|-------------------------------|------------------------|----------------------|------------------------|
| Vehicles                      | \$277,500,000          | \$194,250,000        | \$471,750,000          |
| Lang Maintenance Facility     | \$479,336,000          | \$0                  | \$479,336,000          |
| EMF Expansion*                | \$0                    | \$448,852,000        | \$448,852,000          |
| Midday Fueling Infrastructure | \$18,054,000           | \$18,054,000         | \$36,108,000           |
| Platform Extensions           | \$38,497,000           | \$14,423,000         | \$52,920,000           |
| OSE Equipment                 | \$3,600,000            | \$2,520,000          | \$6,120,000            |
| <i>Subtotal</i>               | <i>\$816,987,000</i>   | <i>\$678,100,000</i> | <i>\$1,495,087,000</i> |
| Project Management (4%)       | \$32,679,000           | \$27,124,000         | \$59,803,000           |
| Project Reserve (20%)         | \$163,397,000          | \$135,620,000        | \$299,017,000          |
| <b>Total</b>                  | <b>\$1,013,063,000</b> | <b>\$840,844,000</b> | <b>\$1,853,907,000</b> |

\*EMF cost reflects a full-service facility for both MUs and LHCs, with storage for both vehicle types

## Safety of Hydrogen within Tunnels

The AVL passes through a tunnel over a mile in length between San Fernando and Santa Clarita Valleys (Tunnel No. 25, 6,976 feet long, between Mile Post [MP] 26.2 and MP 27.9). A complete release of hydrogen from the storage tank was modeled to assess risk in the event of a catastrophic failure to the hydrogen fuel tanks. While this is an unlikely scenario, a release of stored hydrogen in the confined space of the tunnel would rapidly accumulate large volume of combustible gas, which would ignite with any spark. Given the speed at which the gas accumulates, and the limited space in the tunnel, mitigation of this unlikely scenario through ventilation and exhaust of the hydrogen gas would be difficult within the constraints of the existing tunnel. Alternative mitigations could focus on reducing the risk of derailment through speed reduction and additional maintenance and inspections within the tunnel. While regulatory approvals will be required for operating hydrogen fuel cell vehicles in the tunnel, there are currently no standards that discuss fire safety in tunnels with hydrogen trains. The Federal Railroad Administration (FRA) will serve as the lead agency for the approval process and will coordinate with the California Public Utilities Commission's Rail Safety Division and Railroad Operations Safety Branch.

## Implementation Roadmap

The most direct pathway to implementation consists of the following steps:

1. Using local funds or other locally controlled funds (such as federal formula funding) requested from SCRRA's Member Agencies, initiate project development (design, environmental clearance, and right-of-way [ROW] acquisition plans) for facility improvements and development of a vehicle acquisition plan
2. Seek capital funding from the Transit and Intercity Rail Capital Program (TIRCP) and other appropriate sources using the project development work completed with local funding to demonstrate strong project readiness and establish a compelling case for funding
3. Once a capital award is made, complete vehicle acquisition, maintenance facility improvements, and signaling improvements in parallel. Vehicle manufacturing and delivery and maintenance facility construction are anticipated to be the longest paths, depending on which service plan is pursued.
4. Complete testing and safety certifications of the vehicles and new infrastructure
5. Put MU vehicles in revenue service

For the SBCTA vehicle service plan, it is expected that service could begin as early as mid-2034. Due to the larger fleet size, the Caltrans vehicle service plan would require additional time for delivery and could begin in early 2035. In both cases, it is critical that vehicle manufacturing be aligned with the construction of the maintenance facilities so that a site is available for vehicles to be delivered to and begin testing when they are completed. Expeditious implementation is dependent on commitment of significant capital funds from SCRRA's Member Agencies to fund upfront project development activities and provide local matching funds for future grant applications, but limitations on available local funding may require additional time or a more phased approach. This Plan assumes that implementation of MU service on both lines is pursued together in a holistic program, given that the implementation steps are largely the same for both lines, with the exception that ROW acquisition would not be needed for the SBL if the EMF site can accommodate the necessary modifications. The critical path for both lines is driven by the time required to acquire the vehicles and have a functional facility ready to accept them. However, as noted above, funding constraints may require a phased approach in which one line is advanced first.

While the scope of this plan was focused on the SBL and AVL, given the substantial facility investment required and the current use of the existing fleet and facilities by multiple lines, planning for future fleet and facility investments should holistically consider the role of MUs in the systemwide fleet, and facility design should not preclude expansion of MUs to the extent feasible.

## Additional Considerations

Several additional factors should be considered before progressing with implementation of mixed-fleet service on the Metrolink network.

### Hydrogen Fuel Supply

This Plan assumes that MUs operating on the SBL and AVL would be hydrogen-fueled. However, the future supply and demand for hydrogen fuel is uncertain. Efforts are being made to expand hydrogen production across the state, such as the Alliance for Renewable Clean Hydrogen Energy Systems,

but demand is also growing from bus agencies and potentially other rail agencies and transportation fleet owners transitioning to fuel cell vehicles. SBCTA has a contract with Air Liquide Hydrogen Energy U.S. to supply hydrogen for the Arrow service for three years, with two option years, but this would need to be renegotiated prior to the initiation of MU service on the AVL and SBL. The amount of fuel needed for these lines would significantly exceed the needs of the Arrow service. The estimated fuel consumption for the Caltrans vehicle service plan is more than six times the amount of hydrogen consumed by Foothill Transit, which operates California's largest hydrogen bus fleet. However, as more agencies adopt hydrogen for fleets the increase in demand could lead to an increase in supply.

## Intercity Service

The future initiation of Brightline West service connecting in Rancho Cucamonga adds additional challenges to the operation of FLIRTs along the SBL beyond passenger transfer volumes. The capacity analysis conducted for this Plan considers only average weekday passenger loads; however, transfers from Brightline are likely to be less predictable than regular trips, with certain days of week and times of year likely to be busier than others, resulting in overcrowding of MUs. Furthermore, many Brightline passengers are likely to be carrying luggage which takes additional space; while MUs can have luggage racks, the demand for luggage space was not accounted for in the analysis of vehicle capacity. Luggage capacity is also a consideration on the AVL for passengers traveling to Burbank Airport. The Caltrans vehicles are procured with luggage racks in three out of the four cars, providing greater accommodation for baggage than the current SBCTA vehicles.

## Alternative Vehicle Models

It should be noted that the conclusions of this Plan are driven by the specifications of the Stadler FLIRT H2 and may not generalize to all MU vehicles. For example, a bilevel MU would be expected to have fewer challenges regarding seating capacity and platform length than single-level vehicles such as the FLIRT. Similarly, alternative propulsion technology, such as battery power or overhead catenary, would likely change the performance characteristics that influence service planning. Diesel Multiple Units (DMUs) could have reduced costs relative to the hydrogen ZEMUs assumed because the need for investment in fueling infrastructure would be eliminated, and their longer operating range could potentially allow for a smaller fleet.

## Potential Pilot Implementation

While this Plan primarily focuses on permanent implementation of MUs in regular service, potential opportunities to implement a pilot service on the AVL and SBL were also considered due to the availability of partial funding from the state for such a pilot. Pilot options are summarized below and shown in Figure ES-4.

### AVL Pilot Options

Metro has approximately \$8.5 million in grant funding for an AVL pilot, and Caltrans indicated that additional funds may be available to support testing of their vehicles. The most meaningful service demonstration on the AVL would be to replace LHC trips in the existing schedule, but this would require significant investment in signal improvements and resolution of safety concerns around Tunnel 25 discussed below under Additional Considerations. A truncated service would need to be operated as an overlay to existing service and would need a location for MU trains to turn without disrupting mainline traffic. The shared corridor between LAUS and Burbank is heavily travelled, being used by

freight, the AVL, Ventura County Line (VCL), and Amtrak Pacific Surfliner. North of Burbank, the AVL is primarily single track. Preliminary operational analysis suggests that a pilot shuttle MU service could instead be operated between LAUS and Burbank Airport-South or Van Nuys stations on the VCL with two tracks.

## SBL Pilot Options

For the SBL, track capacity does not allow for additional trips to be added to the schedule, so it is recommended that a pilot replace existing trips that operate between LAUS and Montclair, which have lower ridership suitable to smaller vehicles and would reduce the distance required to be covered. While additional off-peak capacity is available for late night or weekend service, those time periods are not considered ideal for a pilot service. Prior to proceeding with implementation of either pilot, more detailed simulations would need to be conducted considering the proposed schedule and specific performance characteristics of the chosen vehicle.

**Figure ES-4. Potential MU Pilot Program Services**



In partnership with Caltrans and Metro, SCRRA would temporarily operate two Caltrans-purchased FLIRTs. A temporary maintenance facility would be needed to maintain the vehicles during the pilot program. Two possible sites were identified near LAUS that are suitable for a pilot on either line, and an additional site was identified east of Interstate 605 that could be used for a SBL pilot.

The Caltrans vehicles currently being manufactured do not have space for wheelchairs in the first and last cars; therefore, temporary mini-high platforms would be required to allow for Americans with Disabilities (ADA)-access to middle cars of the Caltrans FLIRT. As shown in Table ES-3, the capital cost required to facilitate this pilot is approximately \$19 million. The costs shown assume the Rondout Street facility site near LAUS, which is the higher cost of the two sites compatible with a pilot on both lines. The pilot facility is further described in Section 7.3.2.

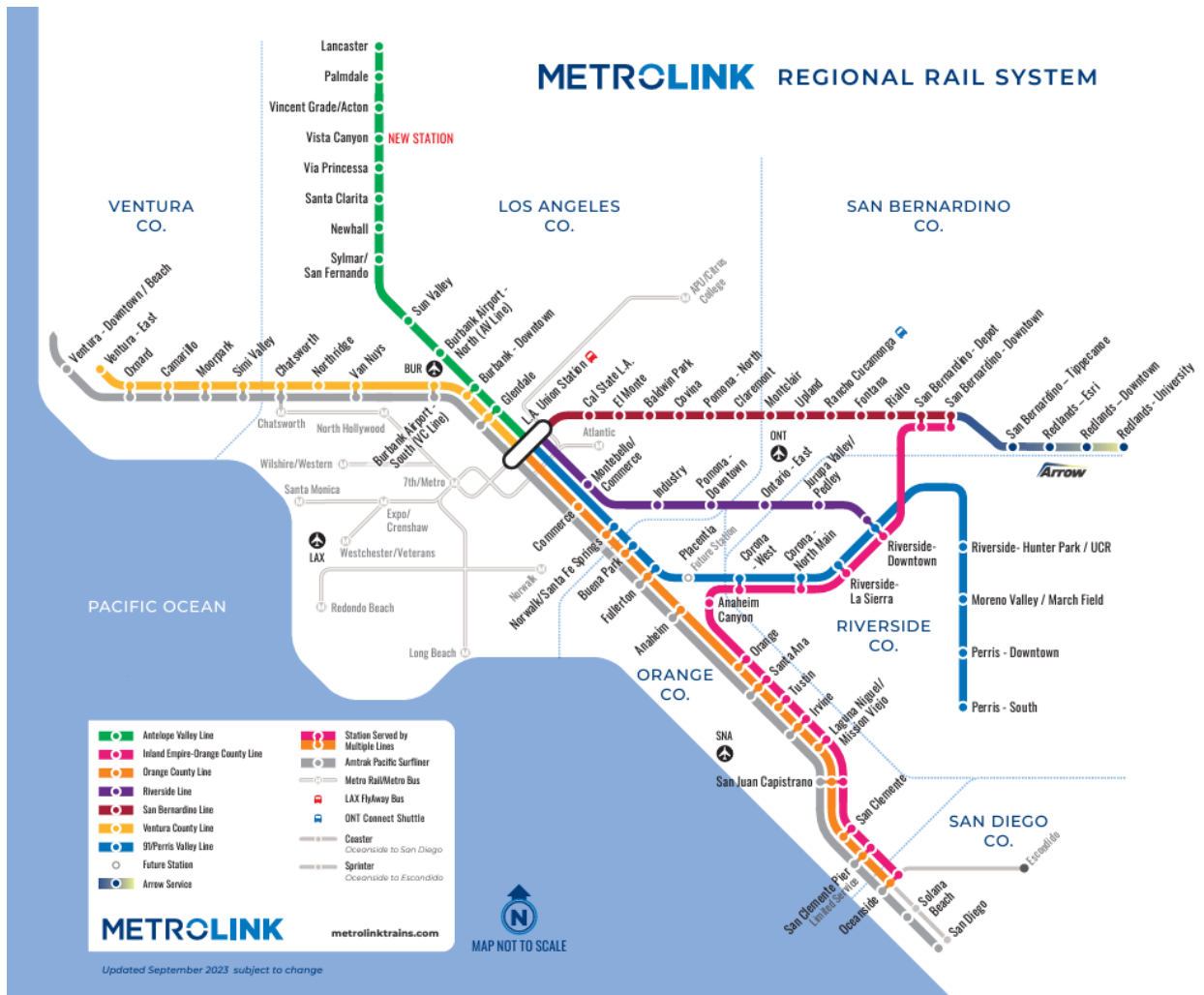
**Table ES-3. Estimated Capital Cost for ZEMU Pilot (2026 dollars)**

|                                   | LAUS-Burbank<br>Airport South | LAUS-Van<br>Nuys    | LAUS-<br>Montclair  | Combined Pilot<br>(Van Nuys-<br>Montclair) |
|-----------------------------------|-------------------------------|---------------------|---------------------|--------------------------------------------|
| Temporary Mini-High<br>Platforms  | \$45,000                      | \$58,000            | \$58,000            | \$116,000                                  |
| Temporary<br>Maintenance Facility | \$15,428,000                  | \$15,428,000        | \$15,428,000        | \$15,428,000                               |
| <b>Subtotal</b>                   | <b>\$15,473,000</b>           | <b>\$15,485,000</b> | <b>\$15,485,000</b> | <b>\$15,543,000</b>                        |
| Project Management<br>(4%)        | \$619,000                     | \$619,000           | \$619,000           | \$622,000                                  |
| Project Reserve<br>(20%)          | \$3,095,000                   | \$3,097,000         | \$3,097,000         | \$3,109,000                                |
| <b>Total</b>                      | <b>\$19,186,000</b>           | <b>\$19,202,000</b> | <b>\$19,202,000</b> | <b>\$19,274,000</b>                        |

# 1 Introduction and Background

Metrolink is the regional rail service for the Southern California region, with eight lines connecting residents of six counties (Figure 1-1). Metrolink is managed by SCRRA, a joint powers agency formed by five county transportation commissions (referred to as member agencies). Service has historically been operated with a “commuter rail” model focused on peak commute hours using high-capacity LHCs. LHC trainsets include a locomotive to provide motive power and unpowered bi-level passenger cars (coaches) with passenger seating.

**Figure 1-1. Metrolink System Map**



In response to changing demand patterns and to attract more riders, SCRRA and its member agencies have been shifting towards more frequent service across the day to transition from a commuter railroad that primarily provides service during rush hour to a regional railroad that offers service all-day. The newest line on the system, the Arrow service between San Bernardino and Redlands, represents the introduction of a “hybrid rail” service model on the Metrolink system. Hybrid rail uses smaller MU trains to provide regular service throughout the day rather than larger but less frequent service focused on peak periods, creating a service that is positioned between light rail and commuter rail. MU vehicles include articulated car sections with passenger seating combined with car sections containing power



equipment. In contrast to traditional light rail transit, these trains can use tracks shared with larger passenger or freight locomotives but also have the potential to reduce operating costs compared to larger LHC trains if high seating capacity is not needed.

This Implementation Plan identifies the steps required to implement FLIRT H2 MUs along the SBL and AVL in mixed operation with the existing LHC fleet, along with associated capital costs and potential operational cost savings.

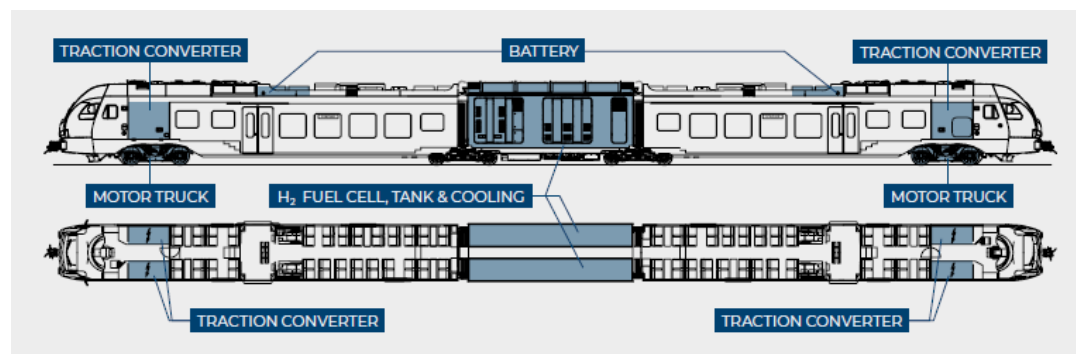
## 1.1 Southern California Optimized Rail Expansion

SCRRA and its member agencies have developed an ambitious capital program to enable frequent service that repeats at regular intervals (e.g., every 30 minutes) across the day, is balanced in each direction, and provides timed connections at hub stations. This will move the system beyond a commuter focus on peak period travel to downtown Los Angeles by enhancing suburb to suburb travel and off-peak options. Capital investment necessary to deliver this service vision consists of new track capacity, fleet expansion, and maintenance facility expansion. The expansion is divided into three phases: Early Completion (2023), Mid-Term (2028), and Long-Term (2050). The 2028 phase prioritizes safety and service upgrades to support the Olympics. Beyond the Olympics, the 2050 vision is a rail network that delivers 30-minute bi-directional service with regular headways between trains on all Metrolink lines and 15-minute bi-directional service on key sections. SCORE planning thus far has assumed the continued use of LHCs, but this Implementation Plan considers the potential for some fleet expansion to be achieved through MUs.

## 1.2 Redlands Passenger Rail Project and MU Vehicle

The Redlands Passenger Rail Project was completed in October 2022 and consisted of construction of nine miles of new track, four new stations, and a maintenance facility, as well as procurement of diesel MUs for initial service on a new Metrolink line, branded the Arrow service. SBCTA has also procured the nation's first hydrogen-powered passenger train, which entered service on the Arrow line in September 2025. Both the current diesel MUs and hydrogen powered trains are manufactured by Stadler as variations of their FLIRT model. The FLIRT is a single-level MU that requires a minimum of two end cars and an energy storage module (also known as a power pack), as shown in Figure 1-2. Up to three intermediate passenger cars can be added to the model acquired by SBCTA, creating trainsets with up to 5 cars and 282 seats. At the outset of this Plan in September 2023, it was unknown if trains could be articulated beyond 5 cars while meeting FRA crashworthiness standards.

**Figure 1-2. SBCTA FLIRT Vehicle Configuration**



Stadler is currently in the process of manufacturing 10 hydrogen-battery hybrid 4-car FLIRTs for Caltrans to use on state supported intercity rail services to demonstrate the viability of hydrogen-powered trains. These vehicles have a modified design compared to the SBCTA vehicle, with slightly longer passenger cars. The vehicles in production have four passenger cars with a total of 203 seats per train with a seating configuration oriented towards intercity service. The vehicles are expected to be delivered between 2027 and 2029, and intercity service planned for operation includes the Los Angeles – San Diego – San Luis Obispo (LOSSAN) Rail Corridor. Caltrans retains 19 trainset options under the contract, with flexibility to adjust the consist length as needed up to six cars.

**Figure 1-3. Rendering of 4-car Caltrans FLIRT**



MU trainsets can be coupled to create even longer trains, but this would require an additional conductor, because the crew would not be able to walk between all cars while the train is moving. Having a situation where a conductor is unable to pass between the cars of the train would disrupt the conductor's response to potential emergencies. SCRRA's Passenger Train Emergency Preparedness Plan requires that conductors perform car-to-car briefings of passengers during emergencies if the public address system is not operable and then to proceed to the most damaged part of the train to assist passengers. Longer trains can also create challenges for boarding if station platforms are shorter than the trainset. To explore the benefits and challenges of different MU consists configurations, two service scenarios were considered, one using a 5-car FLIRT based on the SBCTA model, and one using 4-car Caltrans FLIRTs that can be coupled to create 8-car trains.

In MU trainsets, each car has control and coach cars coupled to a powerpack unit that provides tractive effort and an engine to power the movement of the train. MU train sets are designed to stay coupled/assembled together. In comparison, the existing LHC fleet uses a locomotive coupled to individual double-decker passenger cars and a control car at the opposite end to allow for push pull operation. Metrolink train sets are comprised of 4 to 6 cars including the control cab. These configurations can seat between 500 and 800 passengers per train set. The large difference in seating capacity is primarily because the passenger coaches in the existing fleet have two levels of seating, while the FLIRT has only one level of seating.

## 1.3 Antelope Valley Line Capital and Service Improvements Project

In 2020, SCRRA and member agency Metro were awarded funds from the TIRCP, which is a state program funded oriented towards reducing greenhouse gas (GHG) emissions. The funding awarded to Metro was for the Metrolink Antelope Valley Line Capital and Service Improvements Project, which includes four infrastructure improvements to enable greater frequency as well as \$10 million in funding for a zero-emission pilot.

## 1.4 Fleet Management Plan

SCRRA's Rail Fleet Management Plan, adopted in April 2021, included a high-level cost benefit analysis of alternative vehicle types, and found that a mixed fleet of LHCs and MUs could result in operating cost savings. The technology assessment concluded that up to 35 percent of the fleet could

potentially be MUs. Based on ridership forecasts compared to the capacity of 4-car MUs, the Fleet Management Plan concluded that these predominantly be used on the Antelope Valley Line, the Perris Valley Line, and the Riverside Line while retaining locomotive hauled bi-level coaches on all other lines, including the San Bernardino Line.

Based on costs at the time, diesel MUs were shown to offer savings when used for lower-ridership trips. Hydrogen-battery hybrid vehicles like those assumed for this plan were estimated to be higher cost based on 2020 data, but costs were assumed to decline below LHCs by 2030. The Fleet Management Plan recommended further analysis of the infrastructure and operational considerations assessed in this plan.

## 1.5 Zero-Emission Transition

SCRRA's Strategic Business Plan envisions a transition to a fully zero emissions fleet between 2030 and 2050, in alignment with the California Department of Transportation (Caltrans) goals. To inform long-term fleet planning and develop a rational approach to the zero-emission pilot funded by the TIRCP award, SCRRA conducted a Zero-Emission Technical Analysis to assess propulsion technologies. The three most promising technologies are battery electric, hydrogen fuel cell - battery hybrid, and overhead catenary electric. Full overhead catenary electric propulsion technology was not examined for a pilot as it is already proven and also has high capital costs. In addition to propulsion technologies, the analysis considered high level implications of implementing the pilot through either a locomotive or MU vehicle type. A key recommendation of the analysis was to develop a plan to delve more deeply into the costs and activities required to operate MUs on the AVL.

## 2 Mixed Fleet Service Plan

SCRRA has established a vision for future service in its SGDP. The SGDP included development of schedules and equipment assignments based on locomotive-hauled operations with planned infrastructure improvements. Based on the planned schedules, the SGDP team also developed forecasts of average weekday ridership. These outputs of the SGDP formed the basis of development of mixed-fleet service plans in this study for the SBL and AVL under two vehicle scenarios:

- The **SBCTA FLIRT Plan** considers opportunities to replace LHC trips with a 5-car version of the existing SBCTA FLIRT vehicle
- The **Caltrans FLIRT Plan** considers opportunities to replace LHC trips with the 4-car vehicles based on the specifications of the vehicles being procured by Caltrans, either as 4-car trains or coupled to create 8-car trains

Average weekday ridership from the SGDP was distributed across the day to estimate typical loads on each individual trip of each trainset in the equipment rotation. These were then compared to the seating capacity of FLIRT trainsets to identify trains in the equipment rotation that could reasonably be substituted with MUs without significant overcrowding.

### 2.1 Methodology and Assumptions

Ridership forecasts from the SGDP provided estimates of average weekday trips by station pair based on future service growth. The forecasts were calibrated to 2019 demand conditions and did not account for post-pandemic changes in ridership, with projections significantly exceeding pre-covid

levels. However, at the outset of this Plan in late 2023, SCRRA had assumed that ridership demand would remain depressed by 35.8 percent in 2028 for near-term budgeting purposes, based on forecasts from KPMG. To consider both lasting pandemic effects and the prospect of growth in the long term, two ridership scenarios were considered:

- Interim Conditions – This scenario applied a 35.8 percent reduction to the SGDP forecasts to account for post-pandemic conditions consistent with SCRRA's financial planning
- Long-term Conditions – This scenario uses the full average weekday forecasts from the SGDP

The project team developed time of day factors using a combination of Replica cell phone location-based services data and Caltrans traffic counts along parallel freeways. These factors were then applied to distribute ridership for each station pair to specific train trips based on the departure time at the boarding station.

To identify the peak load on each train (how many riders are on a train at its busiest point along the line), the lines were divided into segments and ridership was summed for all station pairs utilizing that segment. This was then compared against the capacity of the respective train type for the scenario. For the SBCTA vehicle scenario, a seating capacity of 282 was assumed. For the Caltrans vehicle scenario, it was assumed that the seating configuration of 4-car sets could be modified with additional seats for a commuter rather than intercity type service, resulting in a capacity of 244 for 4-car sets and 488 for 8-car sets.

The projected load factors of each trainset in the equipment cycle were presented to project stakeholders, and the stakeholders agreed to carry forward cycles where the projected average weekday load factor of the busiest trip was around 100 percent or less of the seating capacity under the long-term ridership recovery conditions. It should be noted that Metrolink has observed that riders are less likely to ride trains once they reach a load factor of 75 percent due to perception of overcrowding.

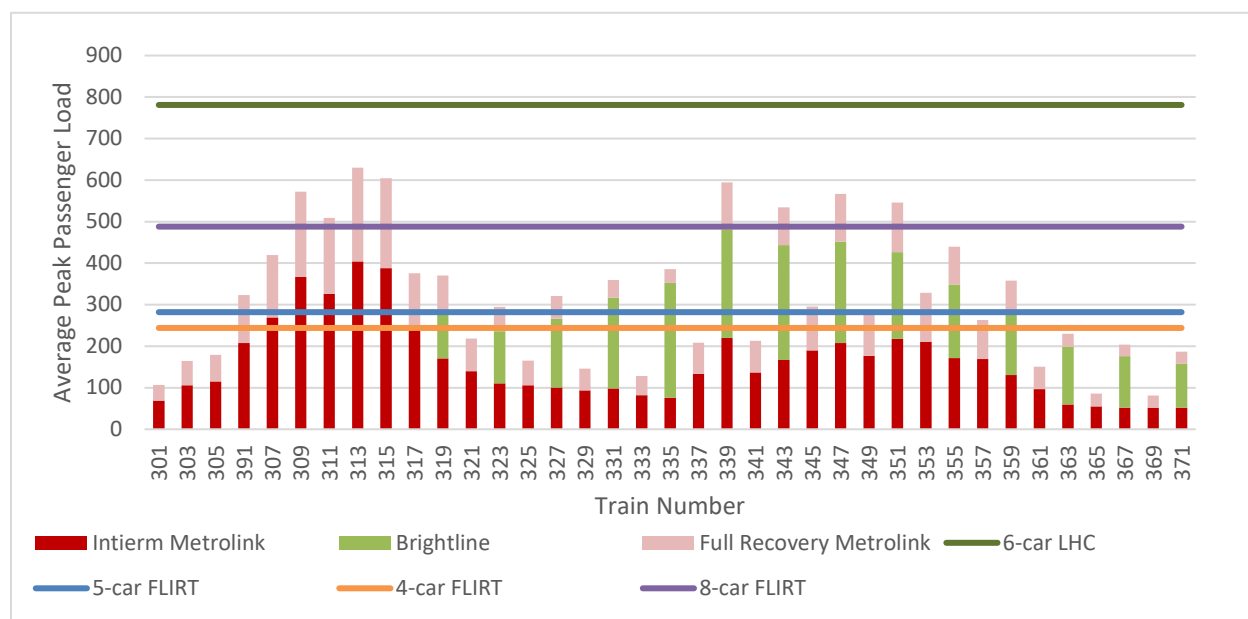
## 2.2 San Bernardino Line Service Plan

### 2.2.1 Ridership Analysis

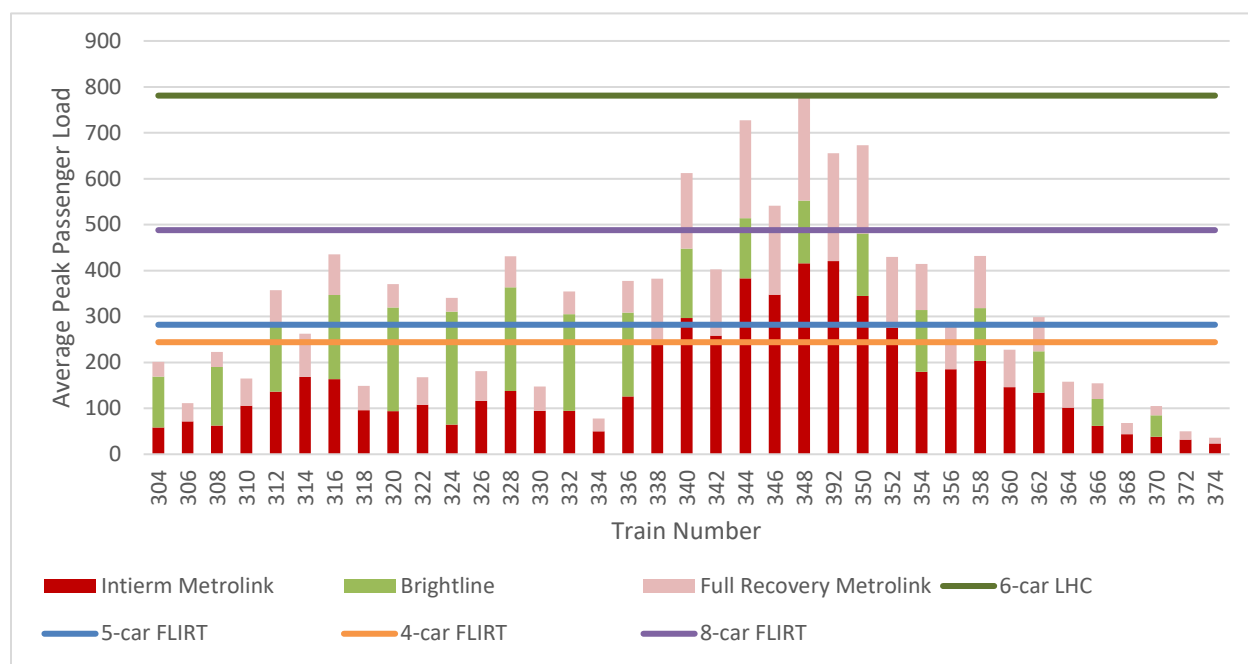
The service plan for the SBL outlined in the SGDP assumes 30-minute bidirectional service with an additional express train to Los Angeles in the morning peak and returning in the afternoon peak. It is also assumed that the Brightline West high-speed rail project between Las Vegas and Rancho Cucamonga will be in place with hourly frequency, allowing every second Metrolink train to connect to a Brightline train to or from Las Vegas. Ridership forecasts from the SGDP included transfers from the new Brightline service. Figure 2-1 and Figure 2-2 show the expected peak load on an average weekday for each train in the westbound and eastbound schedules, respectively, ordered by time of day. Transfers to Brightline are shown in green to display the large contribution made to specific trains. The green line represents the number of seats on a 6-car LHC, the blue line represents the number of seats on a 5-car FLIRT, the orange line represents the number of seats on a 4-car FLIRT, and the purple line represents the number of seats on an 8-car FLIRT for comparison.

Westbound travel toward Los Angeles shows a morning peak corresponding to commutes into central Los Angeles and a second peak in the early afternoon corresponding to return travel from Las Vegas via Brightline. For eastbound travel, the peak commute return from Los Angeles overlaps with afternoon travel towards Las Vegas, creating a single afternoon peak.

**Figure 2-1. Average Weekday Peak Load by Train, Westbound SBL**



**Figure 2-2. Average Weekday Peak Load by Train, Eastbound SBL**



## 2.2.2 SBCTA FLIRT Plan

Table 2-1 shows the anticipated average weekday peak load factor under interim recovery conditions by trip for each trainset in the equipment rotation as a percentage of seating capacity for a 5-car FLIRT (282 seats). Each row represents a trainset, and the columns represent one-way trips made by each trainset, with the last column showing the busiest trip of the day for each trainset. For most trainsets, at least one trip is expected to exceed the seating capacity of a 5-car FLIRT on an average weekday, and some trips approach double the FLIRT's capacity on average. For trainset number 5, the busiest trip averages 75 percent of the capacity of a FLIRT, so it was carried forward for potential replacement

in the operating plan. In the SGDP, this trainset is stored overnight at the eastern end of the line, so modifications to either the Arrow Maintenance Facility (AMF) or EMF were considered, as described further in Section 5.1.1. To support reliable service operation, it is assumed that one additional 5-car set would be needed as a spare, for a total of two 5-car MUs to be used on the SBL. In situations where both MUs are out of service, it is assumed that the broader LHC fleet would provide additional operational resiliency.

It should be noted that 75 percent load capacity is the current threshold at which SCRRA considers adding cars to trainsets to avoid crowding. Furthermore, additional fluctuations within the week or across seasons could exceed the seating capacity of a 5-car FLIRT. Under long-term conditions, as shown in Table 2-2, it is anticipated that every trainset, including trainset number 5, would have at least one trip with peak passenger load exceeding the seating capacity of a 5-car FLIRT.

While many trips on other trainsets are expected to have peak loads below the capacity of a 5-car FLIRT, operating these trips with MUs could only be achieved by expanding the total number of trains and retaining LHCs for the peak period runs. Due to the capital cost of purchasing additional trains and the resulting need for further layover and maintenance capacity, it was determined that service plans that increase the total fleet would not be considered.

**Table 2-1. SBL Passenger Load Factor by Trainset if Replaced with 5-Car FLIRT, Interim Conditions**

| Trainset | One-Way Trip |             |             |            |             |      |             |     | Cycle Peak  |
|----------|--------------|-------------|-------------|------------|-------------|------|-------------|-----|-------------|
|          | 1            | 2           | 3           | 4          | 5           | 6    | 7           | 8   |             |
| 1        | 60%          | <b>138%</b> | 38%         | <b>29%</b> | 159%        |      |             |     | 159%        |
| 2        | <b>24%</b>   | 25%         | <b>86%</b>  | 110%       | <b>49%</b>  | 196% | <b>101%</b> | 36% | 196%        |
| 3        | <b>38%</b>   | 67%         | <b>98%</b>  | 41%        | <b>157%</b> | 75%  | <b>34%</b>  | 43% | <b>157%</b> |
| 4        | <b>41%</b>   | 129%        | <b>170%</b> | 123%       | <b>60%</b>  | 79%  |             |     | <b>170%</b> |
| 5        | <b>37%</b>   | 38%         | <b>50%</b>  | 75%        | <b>70%</b>  | 16%  |             |     | 75%         |
| 6        | <b>37%</b>   | 100%        | <b>84%</b>  | 34%        | <b>67%</b>  | 170% | <b>19%</b>  | 30% | 170%        |
| 7        | <b>95%</b>   | 60%         | <b>38%</b>  | 108%       | <b>160%</b> | 98%  | <b>62%</b>  | 11% | <b>160%</b> |
| 8        | <b>130%</b>  | 123%        | <b>94%</b>  | 18%        | <b>63%</b>  | 111% | <b>19%</b>  | 8%  | 130%        |
| 9        | <b>116%</b>  | 34%         | <b>33%</b>  | 110%       | <b>151%</b> | 66%  | <b>56%</b>  |     | <b>151%</b> |
| 10       | <b>143%</b>  | 113%        | <b>112%</b> | 87%        |             |      |             |     | 143%        |
| 11       | <b>125%</b>  | 92%         | <b>75%</b>  | 113%       |             |      |             |     | <b>125%</b> |
| 12       | <b>47%</b>   | 182%        | <b>124%</b> | 52%        |             |      |             |     | 182%        |
| Legend   | Under 50%    |             |             | 50-100%    |             |      | Over 100%   |     |             |

Note: Bold trips are westbound to Los Angeles, non-bold trips are eastbound to San Bernardino



**Table 2-2. SBL Passenger Load Factor by Trainset if Replaced with 5-Car FLIRT, Long-Term Conditions**

| Trainset | One-Way Trip |             |             |            |             |      |             |     | Cycle Peak  |
|----------|--------------|-------------|-------------|------------|-------------|------|-------------|-----|-------------|
|          | 1            | 2           | 3           | 4          | 5           | 6    | 7           | 8   |             |
| 1        | 71%          | <b>214%</b> | 59%         | <b>45%</b> | 217%        |      |             |     | 217%        |
| 2        | <b>38%</b>   | 39%         | <b>133%</b> | 121%       | <b>76%</b>  | 278% | <b>127%</b> | 56% | 278%        |
| 3        | <b>58%</b>   | 79%         | <b>131%</b> | 64%        | <b>189%</b> | 116% | <b>53%</b>  | 55% | <b>189%</b> |
| 4        | <b>63%</b>   | 153%        | <b>211%</b> | 192%       | <b>93%</b>  | 106% |             |     | <b>211%</b> |
| 5        | <b>57%</b>   | 59%         | <b>77%</b>  | 116%       | <b>82%</b>  | 24%  |             |     | 116%        |
| 6        | <b>57%</b>   | 127%        | <b>104%</b> | 52%        | <b>105%</b> | 239% | <b>30%</b>  | 37% | 239%        |
| 7        | <b>149%</b>  | 93%         | <b>59%</b>  | 126%       | <b>201%</b> | 152% | <b>72%</b>  | 18% | <b>201%</b> |
| 8        | <b>203%</b>  | 154%        | <b>114%</b> | 28%        | <b>98%</b>  | 147% | <b>29%</b>  | 13% | 203%        |
| 9        | <b>180%</b>  | 53%         | <b>52%</b>  | 134%       | <b>194%</b> | 102% | <b>66%</b>  |     | <b>194%</b> |
| 10       | <b>223%</b>  | 131%        | <b>127%</b> | 135%       |             |      |             |     | 223%        |
| 11       | <b>137%</b>  | 143%        | <b>117%</b> | 153%       |             |      |             |     | <b>153%</b> |
| 12       | <b>74%</b>   | 258%        | <b>156%</b> | 81%        |             |      |             |     | 258%        |
| Legend   | Under 50%    |             |             | 50-100%    |             |      | Over 100%   |     |             |

Note: Bold trips are westbound to Los Angeles, non-bold trips are eastbound to San Bernardino

The operational range of the 5-car, hydrogen powered FLIRT is sufficient for up to two round trips on the SBL. Trainset number 5 makes three round trips but has a 5-hour midday layover at the Central Maintenance Facility (CMF), during which it could be refueled if appropriate infrastructure were in place. Alternatively, the train could potentially be stored and fueled midday at Keller Yard closer to LAUS if a hydrogen fueling station is provided there.

### 2.2.3 Caltrans FLIRT Plan

Table 2-3 presents the anticipated average weekday peak load factor under long-term conditions by trip for each trip in the equipment rotation as a percentage of seating capacity for an 8-car FLIRT (488 seats) operating on the SBL. Because the 4-car Caltrans vehicle has less capacity than the 5-car FLIRT, only the 8-car configuration is shown. Similar to the tables above, each row represents a trainset, and the columns represent one-way trips made by each trainset. The last column shows the busiest trip of the day for each trainset.

On the SBL, most trainsets are expected to have at least one trip on an average weekday where ridership exceeds the seating capacity of an 8-car MU. For trainsets 5 and 11, the busiest trips reach average loads of 67 percent and 88 percent of MU seating capacity, respectively. The peak load for trainset 3 slightly exceeds available seating capacity; therefore, this trainset was also carried forward for potential replacement in the operating plan. As described above, trainset number 5 has a midday layover in Los Angeles that can accommodate midday refueling. Trainset number 3 makes four round trips and has an 84-minute midday layover at EMF where it can be refueled. The two round trips of Trainset number 11 are within the estimated operating range of the FLIRT.

**Table 2-3. SBL Vehicle Loads, Percent of 8-car FLIRT Seating Capacity**

| Trainset | Trip        |             |             |            |             |      |            |     | Cycle Peak  |
|----------|-------------|-------------|-------------|------------|-------------|------|------------|-----|-------------|
|          | 1           | 2           | 3           | 4          | 5           | 6    | 7          | 8   |             |
| 1        | 41%         | <b>124%</b> | 34%         | <b>26%</b> | 126%        |      |            |     | 126%        |
| 2        | <b>22%</b>  | 23%         | <b>77%</b>  | 70%        | <b>44%</b>  | 161% | <b>73%</b> | 32% | 161%        |
| 3        | <b>34%</b>  | 46%         | <b>76%</b>  | 37%        | <b>109%</b> | 67%  | <b>31%</b> | 32% | <b>109%</b> |
| 4        | <b>37%</b>  | 88%         | <b>122%</b> | 111%       | <b>54%</b>  | 61%  |            |     | <b>122%</b> |
| 5        | <b>33%</b>  | 34%         | <b>45%</b>  | 67%        | <b>47%</b>  | 14%  |            |     | 67%         |
| 6        | <b>33%</b>  | 73%         | <b>60%</b>  | 30%        | <b>61%</b>  | 138% | <b>18%</b> | 22% | 138%        |
| 7        | <b>86%</b>  | 54%         | <b>34%</b>  | 73%        | <b>116%</b> | 88%  | <b>42%</b> | 10% | <b>116%</b> |
| 8        | <b>117%</b> | 89%         | <b>66%</b>  | 16%        | <b>57%</b>  | 85%  | <b>17%</b> | 7%  | 117%        |
| 9        | <b>104%</b> | 31%         | <b>30%</b>  | 77%        | <b>112%</b> | 59%  | <b>38%</b> |     | <b>112%</b> |
| 10       | <b>129%</b> | 76%         | <b>74%</b>  | 78%        |             |      |            |     | 129%        |
| 11       | <b>79%</b>  | 82%         | <b>67%</b>  | 88%        |             |      |            |     | <b>88%</b>  |
| 12       | <b>43%</b>  | <b>149%</b> | <b>90%</b>  | 47%        |             |      |            |     | 149%        |
| Legend   | Under 50%   |             | 50-100%     |            | Over 100%   |      |            |     |             |

Note: Bold trips are westbound to Los Angeles, non-bold trips are eastbound to San Bernardino

## 2.3 Antelope Valley Service Plan

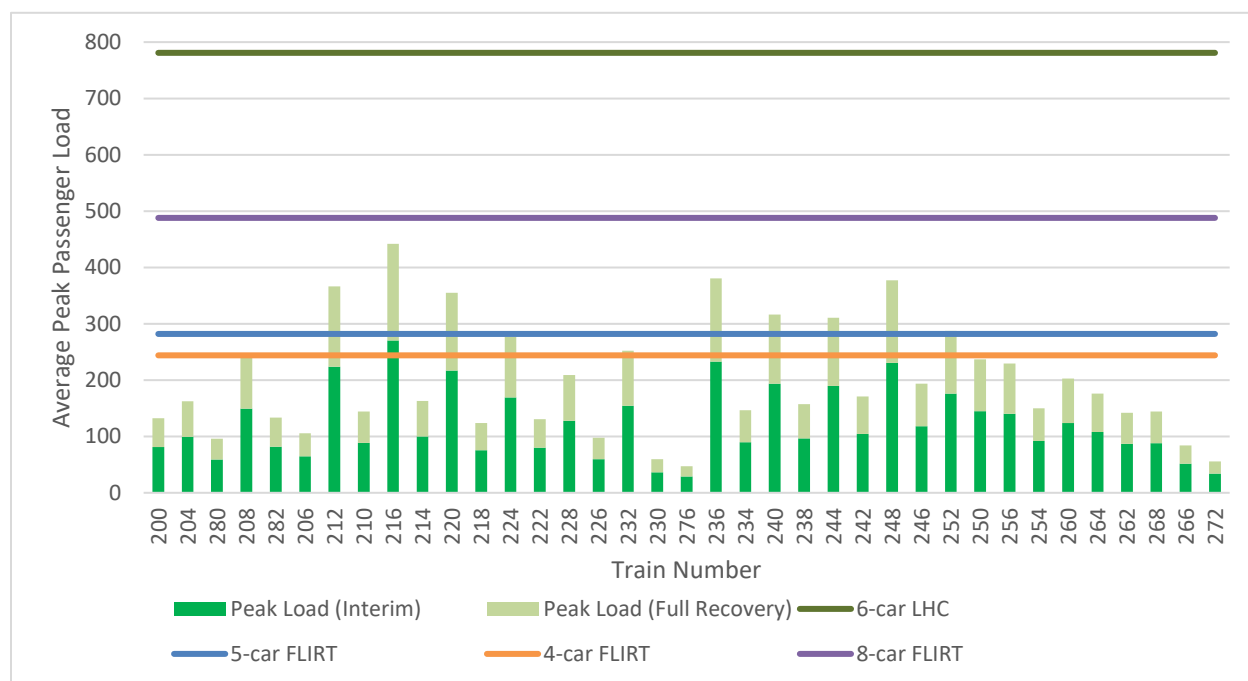
### 2.3.1 Ridership Analysis

The AVL service plan assumes bidirectional hourly service from LAUS to Lancaster and 30-minute service between LAUS and Santa Clarita that is achieved by an additional hourly overlay of trains that travel only between LAUS and the Santa Clarita Station. The trainsets that operate the full length of the line are assumed to be stored overnight in Lancaster, whereas the trains that travel between LAUS and Santa Clarita are assumed to be stored at CMF. However, SCRRA staff advised that the first and last train trips between LAUS and Santa Clarita were largely for positioning purposes rather than serving customer demand, and a facility in the Santa Clarita area could be considered instead of CMF for those trains.

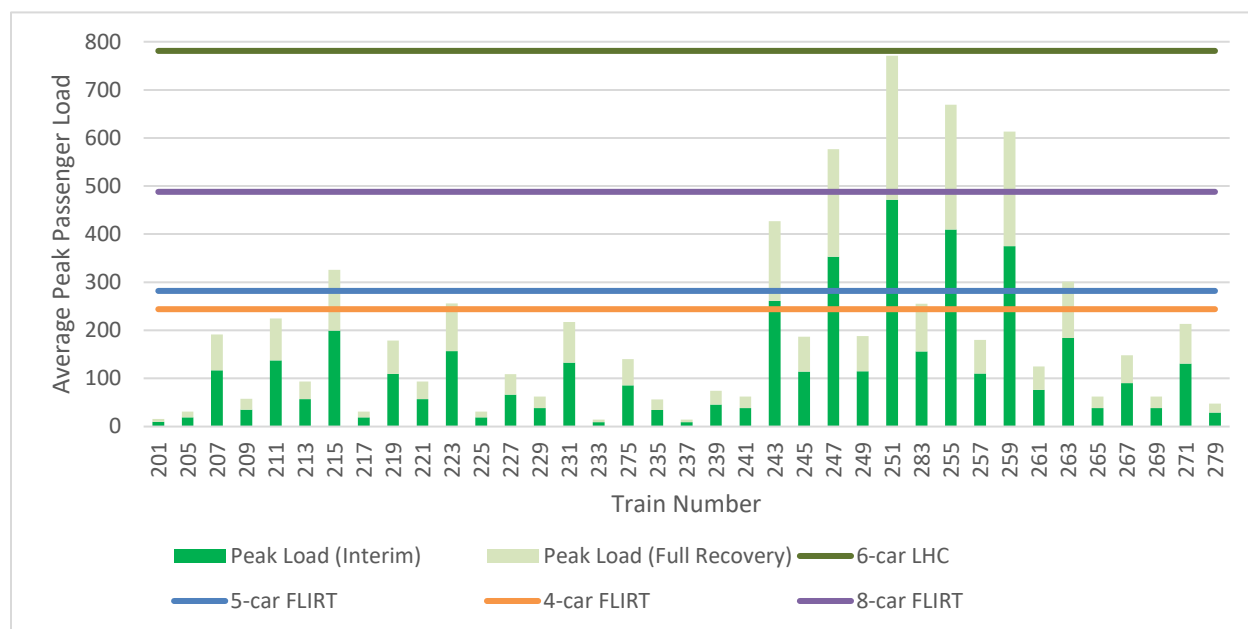
Two of the trainsets in the SGDP equipment rotation that operate on the full corridor from LAUS to Lancaster also operate some trips on the VCL. These trainsets are stored overnight in Lancaster, travel into LAUS in the morning, and then make one or two round trips to Van Nuys before returning to Lancaster in the evening. Operating these trains as MUs would require modifications outside of the AVL. Therefore, it is assumed that these sets would remain as LHC for the purposes of this Plan.

Figure 2-3 and Figure 2-4 show the expected peak load on an average weekday for each train in the southbound and northbound schedules, respectively, ordered by time of day. Southbound travel is relatively spread out throughout the day, whereas northbound travel shows a pronounced peak in the afternoon. For both northbound and southbound trains, a pattern of relatively lower loads can be seen with the alternating trains that do not make the full journey to Lancaster.

**Figure 2-3. Peak Passenger Load by Train, Southbound AVL**



**Figure 2-4. Peak Passenger Load by Train, Northbound AVL**



## 2.3.2 SBCTA FLIRT Plan

Table 2-4 shows the anticipated average weekday peak load factor under interim conditions by train trip for each trainset in the equipment rotation as a percentage of seating capacity for a 5-car FLIRT. Two trainsets (Trainset 4 and 6) that travel between LAUS and Lancaster are potentially suitable for MU operation under interim conditions, with peak load just under 100 percent. All three trainsets that operate to Santa Clarita have peak loads well below the capacity of a 5-car FLIRT. However, as shown in Table 2-5, average peak passenger load on trainset 4 would exceed the capacity of a 5-car FLIRT

in the long term, and the trainsets operating service to Santa Clarita would have medium to high load factors for a 5-car set. Therefore, to account for long term growth, the Project Development Team carried forward replacement of the three trainsets operating only between LAUS and Santa Clarita in the mixed-fleet service plan for the AVL (trainsets 9, 10, and 11 in Table 2-5). The trains would be stored at a new facility near Santa Clarita instead of CMF, and the first and last train movement between LAUS to Santa Clarita would be eliminated. A fourth MU trainset would be needed to accommodate the service pattern because of the need for more frequent refueling. To support reliable service operation, it is assumed that an additional 5-car set would be needed as a spare for a total of five 5-car sets.

**Table 2-4. AVL Passenger Load Factor by Trainset if Replaced with 5-Car FLIRT, Interim Conditions**

| Trainset              | One-way Trip |     |     |      |         |      |     |     |           |     |     |     | Cycle Peak |
|-----------------------|--------------|-----|-----|------|---------|------|-----|-----|-----------|-----|-----|-----|------------|
|                       | 1            | 2   | 3   | 4    | 5       | 6    | 7   | 8   | 9         | 10  | 11  | 12  |            |
| LAUS to Lancaster     |              |     |     |      |         |      |     |     |           |     |     |     |            |
| 1                     | 29%          | 42% | 60% | 47%  | 82%     | 145% |     |     |           |     |     |     | 145%       |
| 2                     | 35%          | 49% | 45% | 12%  | 62%     | 133% |     |     |           |     |     |     | 133%       |
| 3                     | 21%          | VCL | VCL | 55%  |         |      |     |     |           |     |     |     | VCL        |
| 4                     | 53%          | 71% | 55% | 16%  | 50%     | 65%  |     |     |           |     |     |     | 71%        |
| 5                     | 29%          | VCL | VCL | VCL  | VCL     | 10%  |     |     |           |     |     |     | VCL        |
| 6                     | 79%          | 39% | 83% | 93%  | 44%     | 32%  |     |     |           |     |     |     | 93%        |
| 7                     | 96%          | 56% | 69% | 125% | 38%     | 46%  |     |     |           |     |     |     | 125%       |
| 8                     | 77%          | 24% | 67% | 167% | 31%     | 30%  |     |     |           |     |     |     | 167%       |
| LAUS to Santa Clarita |              |     |     |      |         |      |     |     |           |     |     |     |            |
| 9                     | 3%           | 23% | 20% | 27%  | 7%      | 13%  | 3%  | 37% | 41%       | 33% | 27% | 18% | 41%        |
| 10                    | 7%           | 31% | 7%  | 28%  | 14%     | 32%  | 14% | 42% | 14%       | 12% |     |     | 42%        |
| 11                    | 13%          | 35% | 20% | 21%  | 3%      | 34%  | 41% | 51% | 39%       | 31% | 14% | 10% | 51%        |
| Legend:               | Under 50%    |     |     |      | 50-100% |      |     |     | Over 100% |     |     |     |            |

Note: cells labeled “VCL” indicate that trips operated by a trainset on the Ventura County Line, which is outside the scope of this plan. Bolded trips are southbound to Los Angeles, and non-bolded trips are northbound towards Lancaster or Santa Clarita

**Table 2-5. AVL Passenger Load Factor by Trainset if Replaced with 5-Car FLIRT, Long-Term Conditions**

| Trainset              | One-Way Trip |      |      |      |         |      |     |     |           |     |     |     | Cycle Peak |
|-----------------------|--------------|------|------|------|---------|------|-----|-----|-----------|-----|-----|-----|------------|
|                       | 1            | 2    | 3    | 4    | 5       | 6    | 7   | 8   | 9         | 10  | 11  | 12  |            |
| LAUS to Lancaster     |              |      |      |      |         |      |     |     |           |     |     |     |            |
| 1                     | 47%          | 68%  | 98%  | 77%  | 134%    | 237% |     |     |           |     |     |     | 237%       |
| 2                     | 58%          | 80%  | 74%  | 20%  | 102%    | 218% |     |     |           |     |     |     | 218%       |
| 3                     | 34%          | VCL  | VCL  | 91%  |         |      |     |     |           |     |     |     | VCL        |
| 4                     | 87%          | 116% | 89%  | 26%  | 81%     | 107% |     |     |           |     |     |     | 116%       |
| 5                     | 47%          | VCL  | VCL  | VCL  | VCL     | 17%  |     |     |           |     |     |     | VCL        |
| 6                     | 130%         | 63%  | 135% | 152% | 72%     | 52%  |     |     |           |     |     |     | 152%       |
| 7                     | 157%         | 91%  | 112% | 204% | 62%     | 76%  |     |     |           |     |     |     | 204%       |
| 8                     | 126%         | 39%  | 110% | 273% | 51%     | 50%  |     |     |           |     |     |     | 273%       |
| LAUS to Santa Clarita |              |      |      |      |         |      |     |     |           |     |     |     |            |
| 9                     | 6%           | 38%  | 33%  | 44%  | 11%     | 21%  | 5%  | 61% | 67%       | 53% | 44% | 30% | 67%        |
| 10                    | 11%          | 51%  | 11%  | 46%  | 22%     | 52%  | 22% | 69% | 22%       | 20% |     |     | 69%        |
| 11                    | 21%          | 58%  | 33%  | 35%  | 5%      | 56%  | 66% | 84% | 64%       | 50% | 22% | 17% | 84%        |
| Legend:               | Under 50%    |      |      |      | 50-100% |      |     |     | Over 100% |     |     |     |            |

Note: cells labeled “VCL” indicate that trips operated by a trainset on the Ventura County Line, which is outside the scope of this plan. Bolded trips are southbound to Los Angeles, and non-bolded trips are northbound towards Lancaster or Santa Clarita.

### 2.3.3 Caltrans FLIRT Plan

Table 2-6 shows the anticipated average weekday peak load factor under long-term conditions for each train trip in the equipment rotation, expressed as a percentage of the seating capacity of an 8-car MU. On the AVL line, all three trainsets operating between Los Angeles and Santa Clarita are projected to remain below 50 percent of the seating capacity of an 8-car MU, indicating that a 4-car set would be sufficient for all trips. Additionally, two trainsets operating between Los Angeles and Lancaster are also expected to remain within the seating capacity of an 8-car MU.

Like the SBCTA FLIRT service plan, the trips between LAUS and Santa Clarita will require a fourth trainset to accommodate midday refueling. Both equipment cycles carried forward for service between LAUS and Lancaster have 78-minute layovers in Lancaster between round trips where they could be refueled.

**Table 2-6. AVL Vehicle Loads, Percent of 8-car FLIRT Seating Capacity**

| Trainset              | Trip      |     |         |      |           |      |     |     |     |     |     |     | Cycle Peak |
|-----------------------|-----------|-----|---------|------|-----------|------|-----|-----|-----|-----|-----|-----|------------|
|                       | 1         | 2   | 3       | 4    | 5         | 6    | 7   | 8   | 9   | 10  | 11  | 12  |            |
| LAUS to Lancaster     |           |     |         |      |           |      |     |     |     |     |     |     |            |
| 1                     | 27%       | 39% | 57%     | 45%  | 77%       | 137% |     |     |     |     |     |     | 137%       |
| 2                     | 33%       | 46% | 43%     | 12%  | 59%       | 126% |     |     |     |     |     |     | 126%       |
| 3                     | 20%       | VCL | VCL     | 52%  |           |      |     |     |     |     |     |     | VCL        |
| 4                     | 50%       | 67% | 52%     | 15%  | 47%       | 62%  |     |     |     |     |     |     | 67%        |
| 5                     | 27%       | VCL | VCL     | VCL  | VCL       | 10%  |     |     |     |     |     |     | VCL        |
| 6                     | 75%       | 37% | 78%     | 88%  | 42%       | 30%  |     |     |     |     |     |     | 88%        |
| 7                     | 91%       | 52% | 65%     | 118% | 36%       | 44%  |     |     |     |     |     |     | 118%       |
| 8                     | 73%       | 22% | 64%     | 158% | 30%       | 29%  |     |     |     |     |     |     | 158%       |
| LAUS to Santa Clarita |           |     |         |      |           |      |     |     |     |     |     |     |            |
| 9                     | 3%        | 22% | 19%     | 25%  | 6%        | 12%  | 3%  | 35% | 39% | 31% | 26% | 17% | 39%        |
| 10                    | 6%        | 30% | 6%      | 27%  | 13%       | 30%  | 13% | 40% | 13% | 11% |     |     | 40%        |
| 11                    | 12%       | 33% | 19%     | 20%  | 3%        | 32%  | 38% | 49% | 37% | 29% | 13% | 10% | 49%        |
| Legend                | Under 50% |     | 50-100% |      | Over 100% |      |     |     |     |     |     |     |            |

Note: cells labeled “VCL” indicate that trips operated by a trainset on the Ventura County Line, which is outside the scope of this plan. Bolded trips are southbound to Los Angeles, and non-bolded trips are northbound towards Lancaster or Santa Clarita.

### 2.3.4 Operational Analysis

The original SGDP schedule required just three LHC trains based out of CMF to be used for LAUS-Santa Clarita service, with each making eight or more round trips per day; however, simulations provided by Stadler demonstrated that a 5-car ZEMU FLIRT could comfortably make only 4 round trips between Santa Clarita and LAUS before needing to refuel. To account for the need to take ZEMU trainsets out of service for midday fueling at a future proposed location east of the Santa Clarita station, an equipment rotation plan requiring the use of four MU trainsets was developed to ensure that all Santa Clarita-LAUS round trips could be operated with MU Trains. In this modified equipment rotation, each trainset would only make 3 or 4 round trips per day.

Given the steep grades of the AVL and slower acceleration of FLIRT ZEMUs, an operational analysis was performed using computer-based rail operations simulation software to test the ability of MU trains to support a future 30-minute, all day bi-directional service on the AVL using each mixed-fleet service plan. The analysis was conducted using the Rail Traffic Controller rail simulation software that represents train performance and dispatching operations to run randomized rail operations scenarios.

Due to the absence of a 4-car and 5-car FLIRT model in the Rail Traffic Controller rail simulation software, the MU train used in the simulation of LAUS to Santa Clarita service was comprised of two Stadler FLIRT 2-car ZEMU trainsets coupled together. This configuration would have two power packs and four cars, representing more power relative to weight than a 4-car or 5-car set with either one or two power packs. For LAUS to Lancaster service, a consist of four coupled 2-car SBCTA sets was used to represent an 8-car train. While the Caltrans vehicle has a larger power pack than the SBCTA vehicle, the modeled trainset has twice as many power packs and likely represents more power to weight than the Caltrans vehicle. Train performance calculations indicate that even with these optimistic performance cases, the FLIRT would be unable to meet the planned schedule on the AVL,



because the trains would take more time to climb grades between LAUS and Santa Clarita, as explained further below. As described in Section 4.1.2, vehicles to be procured for the AVL would need to be redesigned with additional power to achieve the travel times necessary in the planned SGDP schedule.

Randomized simulations were conducted to test the effect of extending scheduled travel times for MU trains between LAUS and Santa Clarita. For both mixed-fleet service scenarios, the simulations indicate that a modified schedule that maintains clockface arrivals and departures at LAUS, protecting planned transfer opportunities between lines, but not the other stations, could be operated by the coupled 2-car FLIRT without major impacts to train meet locations or on-time performance. Additional details on the methodology and results are provided in Appendix A.

While operationally feasible, replacing a portion of the LHC equipment used with MU trains would require adjusting the corridor's existing and planned service patterns. MU trains require approximately 2-3 minutes of additional running time compared to their LHC counterparts. To achieve a blended operation of MU and LHC trains, two different clockface schedules would be required to account for the difference in running times between the two equipment types. Assuming that clockface arrival and departures times at LAUS are preserved, arrival and departure times at stations to the north would vary depending on the equipment used for a given run. Additionally, while no additional track infrastructure (e.g. sidings) would be required to fully implement a blended service, investment in a refueling/servicing facility at Lancaster is necessary to allow for midday refueling of the MU equipment.

Overall, the findings demonstrate that a phased introduction of MU equipment would support future goals of 30-minute bi-directional service on the AVL, provided that vehicles can be redesigned with more power or SCRRA and its member agencies are willing to accept a modified train schedule that departs from the current schedule template.

## 2.4 Mixed Fleet Summary

Table 2-7 below shows the number of trainsets needed for each of the service plans outlined above. For the Caltrans FLIRT service plan, the count is expressed in 4-car trainsets, so the 8-car configuration is expressed as two 4-car trainsets.

**Table 2-7. Summary of MU Vehicles by Service Plan**

|                                                     | SBL      | AVL       | Total     |
|-----------------------------------------------------|----------|-----------|-----------|
| <b>SBCTA FLIRT Service Plan (5-car vehicles)</b>    |          |           |           |
| MU Trains in Daily Service                          | 1        | 4         | 5         |
| Spares                                              | 1        | 1         | 2         |
| <b>Total</b>                                        | <b>2</b> | <b>5</b>  | <b>7</b>  |
| <b>Caltrans FLIRT Service Plan (4-car vehicles)</b> |          |           |           |
| MU Trains in Daily Service                          | 6        | 8         | 14        |
| Spares                                              | 1        | 2         | 3         |
| <b>Total</b>                                        | <b>7</b> | <b>10</b> | <b>17</b> |

## 3 Operations and Maintenance Cost Comparison

Introducing new MU vehicles into the Metrolink service will change the Operations and Maintenance (O&M) costs for the system. To assess the impact of the mixed fleet service plan, a cost comparison was developed using three cost categories that vary by vehicle type: crew labor, fuel, and vehicle maintenance. Unit cost estimates were developed and then applied to the mixed fleet service plans outlined in Section 2.

### 3.1 Unit Cost Assumptions and Methodology

To estimate projected O&M costs, several data sources were used. Below is a description of the data sources and methodology used to estimate costs for each category of Labor, Fuel, and Maintenance for both LHCs and ZEMUs. These were converted to Cost per TRM to allow comparison across operating scenarios.

#### 3.1.1 Labor

The cost of a train crew (one train operator and one conductor) was developed using SCRRA's FY25 Budget. The total cost for Train Operators in this budget was \$47,776,000. This cost was distributed across the total budgeted TRM which was 3,101,960 miles. The cost for Train Crew per TRM, for LHCs and 4- or 5-car ZEMUs, is therefore assumed to be \$15.40 per TRM.

Equation 1: LHC Train Crew Cost per TRM

$$\frac{\$47,776,000}{3,101,960} = \$15.40 \text{ per TRM}$$

For an 8-car ZEMU, due to the configuration of the vehicle, service will require a second conductor for customer service and safety. Therefore, for an 8-car ZEMU the cost of the Train Crew will be 1.5x the cost of the above, \$23.10 per TRM.

#### 3.1.2 Fuel

LHCs use renewable diesel as their fuel source and ZEMUs use hydrogen. Therefore, separate methodologies were developed to determine the cost of fuel per TRM for each.

For LHCs, the cost of renewable diesel fuel was developed using SCRRA's FY25 Budget. The total cost for diesel fuel in this budget was \$33,293,000. This cost was distributed across the total budgeted TRM which was 3,101,960 miles. The cost for renewable diesel fuel per TRM is therefore assumed to be \$10.73.

Equation 2: LHC Renewable Diesel Fuel Cost per TRM

$$\frac{\$33,293,000}{3,101,960} = \$10.73 \text{ per LHC TRM}$$

For ZEMUs, no comparative costs for hydrogen were available in SCRRA's budget because the hydrogen-powered ZEMU was not yet operating in service on the Arrow Line. Hydrogen is a new and growing market as a fuel source for transportation. To determine an approximate range of expected costs, three other transit agencies in California that currently purchase hydrogen to fuel their bus fleets

were surveyed, using the latest available data from the Federal Transit Administration's (FTA) National Transit Database (NTD) for 2024. This data is summarized in Table 3-1 below.

**Table 3-1. Hydrogen Costs per Kg by Agency**

| Agency                 | Cost per Kg of hydrogen |
|------------------------|-------------------------|
| Foothill Transit       | \$9.91                  |
| SunLine Transit Agency | \$20.57                 |
| AC Transit             | \$18.90                 |

Source: 2024 NTD Annual Data - Fuel and Energy

Based on this data, the range in cost per Kg of hydrogen can be reasonably assumed to be between \$9.91 and \$20.57. Energy consumption simulations conducted by Stadler for the Caltrans vehicle provided a conservative baseline fuel consumption rate of 1kg per mile for a 4-car ZEMU, and the project team conservatively assumed a linear consumption rate for a 2-car ZEMU (50% consumption, 0.5 kg/mile), a 5-car ZEMU (125% consumption, 1.25 kg/mile), and for an 8-car ZEMU (200% consumption, 2 kg/mile). The cost per TRM is then estimated to be the following (low and high ranges):

**Table 3-2. ZEMU Hydrogen Costs per TRM by Consist Size**

| ZEMU Consist Size | Consumption Rate | Cost per TRM (low) | Cost per TRM (high) |
|-------------------|------------------|--------------------|---------------------|
| 2-car             | 50%              | \$4.95             | \$10.29             |
| 4-car             | 100%             | \$9.91             | \$20.57             |
| 5-car             | 125%             | \$12.39            | \$25.71             |
| 8-car             | 200%             | \$19.82            | \$41.14             |

### 3.1.3 Maintenance

LHCs and ZEMUs require different maintenance procedures and cost structures; therefore, separate methodologies were developed to calculate the maintenance cost per TRM for each vehicle type.

For LHCs, maintenance costs were developed using SCRRA's FY25 Budget. Four cost categories were combined to determine the total annual vehicle maintenance cost: Equipment Maintenance, Equipment Materials, Operating Facilities Maintenance, and Non-scheduled Rolling Stock Repairs. The totals for each of these categories are shown in the table below.

**Table 3-3. LHC Maintenance Budget FY25**

| Cost Category                            | FY25 Annual Budget  |
|------------------------------------------|---------------------|
| FY25 Equipment Maintenance               | \$31,700,000        |
| FY25 Equipment Materials                 | \$12,300,000        |
| FY25 Operating Facilities Maintenance    | \$2,500,000         |
| FY25 Non-scheduled Rolling Stock Repairs | \$200,000           |
| <b>Total LHC Maintenance</b>             | <b>\$46,700,000</b> |

Source: SCRRA Adopted Budget Fiscal Year 2024-2025

The sum of these categories is \$46.7M. This cost was distributed across the total budgeted TRM of 3,101,960 miles. The cost for vehicle maintenance per TRM is therefore assumed to be \$15.05. NTD data indicates that the average Metrolink consist has 4.2 passenger cars, so the cost per train mile is a conservative estimate for a typical 4-car consist with one locomotive, three coaches, and one cab car.

#### Equation 3: LHC Vehicle Maintenance Cost per TRM

$$\frac{\$46,700,000}{3,101,960} = \$15.05 \text{ per LHC TRM}$$

For ZEMUs, the contracted operator (Stadler) price schedule for Arrow multiple unit maintenance was used to determine an average maintenance cost per TRM. The Arrow service operates a mixed fleet consisting of both 2-car DMUs and 2-car ZEMUs. Stadler breaks these costs into three components (1) Base Fee, (2) Full Service Maintenance fee for one (1) ZEMU, and (3) AMF Maintenance Fee. Because the Base Fee and AMF Maintenance Fee apply to the entire Arrow fleet (one ZEMU and three DMUs), these amounts were allocated on a per-vehicle basis by dividing each by four. The resulting monthly ZEMU costs were annualized and then distributed across one-quarter of the Arrow service TRM (87,042 TRM)<sup>1</sup>, representing the proportion of total mileage attributable to the single ZEMU vehicle. This process is shown in Table 3-4 below.

**Table 3-4. ZEMU Maintenance Costs**

| Description                               | Monthly Cost | Monthly Cost per ZEMU | Annual Cost per ZEMU | Cost per TRM   |
|-------------------------------------------|--------------|-----------------------|----------------------|----------------|
| Base fee                                  | \$304,265    | \$76,066.25           | \$912,795            | \$10.49        |
| Full Service Maintenance fee for 1 x ZEMU | \$6,710      | \$6,710.00            | \$80,520             | \$0.93         |
| AMF Maintenance fee                       | \$26,690     | \$6,672.50            | \$80,070             | \$0.92         |
| <b>Total</b>                              |              |                       |                      | <b>\$12.33</b> |

Source: Stadler Price Schedule, HDR calculation.

The expense per TRM for a 2-car ZEMU is the sum of the final column in the table above, \$12.33. To scale this maintenance figure to larger consists, an escalation factor was assumed. When adding passenger capacity to a FLIRT consist, the additional cars increase the number of components that must be cleaned, inspected, replaced on a periodic basis, such as brakes, batteries, and seats. However, the additional cars have minimal system elements required for the cab cars and no additional power pack is added, so the addition of cars does not increase the maintenance of the vehicle in a linear fashion. Therefore, only a 50 percent increase in cost is assumed for a 4-car set, rather than a 100 percent increase. For an 8-car FLIRT, however, this would be two 4-car FLIRTs coupled together, which would double all components in need of maintenance.

There is a possibility of gaining economy of scale by expanding the ZEMU fleet, which could lower vehicle maintenance costs. There is also possibility that the complexity and novelty of maintaining a hydrogen-fueled fleet could increase vehicle maintenance costs. To account for these possibilities, a range of +/-25% is applied to the vehicle maintenance cost per TRM. This range is based on a

<sup>1</sup> Based on 8.9-mile one-way trip; 134 daily weekday one-way trips (x 255 weekdays annually) and 45 daily weekend day one-way trips (x 110 weekend days annually). 348,168 annual TRM.

comparison of Arrow DMU maintenance costs with other directly operated DMU services in California (eBART, North County Transit District [NCTD], and Sonoma-Marín Area Rail Transit).

This estimated maintenance cost range is shown in Table 3-5 below.

**Table 3-5. ZEMU Maintenance Costs per TRM by Consist Size**

| ZEMU Consist Size | Escalation Factor | Base Cost per TRM | Cost per TRM (low) | Cost per TRM (high) |
|-------------------|-------------------|-------------------|--------------------|---------------------|
| 2-car             | 1.0               | \$12.33           | \$9.25             | \$15.41             |
| 4-car             | 1.5               | \$18.50           | \$13.87            | \$23.12             |
| 5-car             | 1.6               | \$19.73           | \$14.80            | \$24.66             |
| 8-car             | 3.0               | \$36.99           | \$27.74            | \$46.24             |

### 3.1.4 Summary of Cost by Train Type

The estimated range of costs per TRM for each potential configuration of LHCs and ZEMUs are shown in Table 3-6. The low range combines the low maintenance and low hydrogen figures, signifying the estimated floor of costs. The high range combines the high maintenance and high hydrogen figures, signifying the estimated ceiling of costs.

The analysis shows that, where appropriate for ridership loads, the 2-car ZEMU is cheaper to operate and maintain than diesel LHCs. The low end of the estimated range for 4-car and 5-car sets are comparable to current LHC costs, but the high end of the range is more expensive, due to fuel and maintenance costs. If ridership warrants larger trainsets, coupling vehicles results in significantly higher operating costs due to additional crew requirements, hydrogen fuel consumption, and duplication of components that need to be maintained.

It should be noted that the zero-emission technology assumed contributes to higher costs for the ZEMUs. Fuel costs would be lower for DMUs, and the baseline LHC costs are also based on diesel operations.

**Table 3-6. Cost per TRM by Train Type and Consist Size**

| Cost Category       | LHC            | ZEMU (2-car)   | ZEMU (4-car)   | ZEMU (5-car)   | ZEMU (8-car)    |
|---------------------|----------------|----------------|----------------|----------------|-----------------|
| Maintenance (low)   | \$15.05        | \$9.25         | \$13.87        | \$14.80        | \$27.74         |
| Maintenance (high)  | \$15.05        | \$15.41        | \$23.12        | \$24.66        | \$46.24         |
| Train Crew          | \$15.40        | \$15.40        | \$15.40        | \$15.40        | \$23.10         |
| Renewable Diesel    | \$10.73        |                |                |                |                 |
| Hydrogen (low)      |                | \$4.95         | \$9.91         | \$12.39        | \$19.82         |
| Hydrogen (high)     |                | \$10.29        | \$20.57        | \$25.72        | \$41.14         |
| <b>Total (low)</b>  | <b>\$41.19</b> | <b>\$29.60</b> | <b>\$39.18</b> | <b>\$42.58</b> | <b>\$70.66</b>  |
| <b>Total (high)</b> | <b>\$41.19</b> | <b>\$41.10</b> | <b>\$59.09</b> | <b>\$65.78</b> | <b>\$110.48</b> |

### 3.1.5 Hydrogen Cost Sensitivity

Operating costs for the 4-car and 5-car ZEMU are comparable to operating costs for an LHC when assuming both a lower maintenance cost and a lower hydrogen cost, as shown in Table 3-6 above.

For these train consists to break even with an LHC, hydrogen costs would need to be below \$12/kg for the 4-car and below \$9/kg for the 5-car.

However, when assuming higher maintenance and hydrogen costs these ZEMUs become more expensive to operate than an LHC. The maintenance and train crew costs of the 4-car and 5-car ZEMU approach the total cost of an LHC, before considering the cost of hydrogen fuel. For these train consists to break even with an LHC when assuming a higher maintenance cost, hydrogen costs would need to be below \$3/kg for the 4-car and below \$1/kg for the 5-car.

Operating costs for the 8-car ZEMU, excluding hydrogen costs, exceed the operating cost of an LHC when assuming either lower or higher maintenance costs. Therefore, the 8-car ZEMU will always cost more than an LHC within the parameters defined in this plan, regardless of the cost of hydrogen.

The specific break-even price for a kilogram of hydrogen for each ZEMU configuration are shown in the table below:

**Table 3-7: Break-Even Cost of Hydrogen per Kg**

|                                                  | 4-car ZEMU | 5-car ZEMU | 8-car ZEMU |
|--------------------------------------------------|------------|------------|------------|
| <b>Hydrogen Cost per Kg (lower maintenance)</b>  | \$11.92    | \$8.79     | n/a        |
| <b>Hydrogen Cost per Kg (higher maintenance)</b> | \$2.67     | \$0.90     | n/a        |

### 3.1.6 Cost Benchmarking

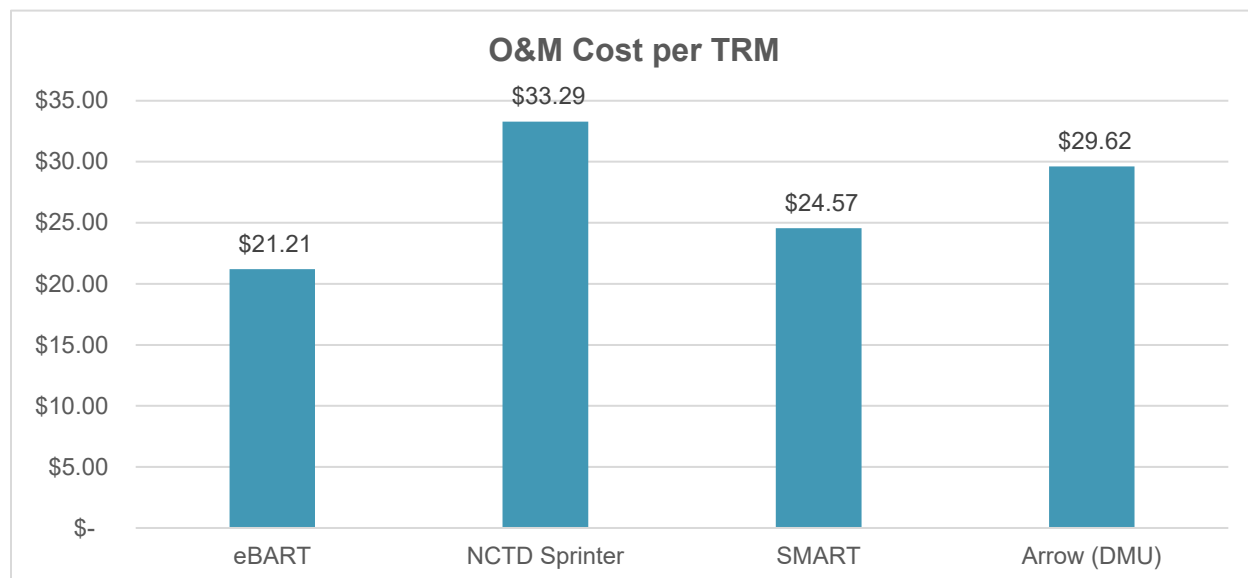
A review of operating costs for existing DMU operations was conducted using available NTD data. Three directly-operated services were identified that report costs by sub-category to allow labor, fuel, and vehicle maintenance to be estimated, all located in California:

- Sonoma-Marín Area Rail Transit operates 2-car Nippon Sharyo DMU trains
- NCTD operates 2-car Siemens Desiro trains on its SPRINTER route
- The Bay Area Rapid Transit District operates 2-car Stadler GTW trainsets either alone or coupled together on the eBART, a shuttle service operating as an extension of the Yellow Line heavy rail service. Unlike commuter operations, eBART operates with no conductors.

These services are more mature than Arrow service and have larger fleets, providing economies of scale. Figure 3-1 shows the comparison of labor, fuel and maintenance costs for each operator compared to Arrow. Costs for the Arrow service are above average, but within the range of other comparable services. While costs are higher for SPRINTER service, it should be noted that the Desiro DMU fleet is reaching the end of its useful life and has limited support from Siemens, because it is the only operation of this vehicle in the country, resulting in higher maintenance costs. In comparison, both SMART and eBART show lower costs per train mile. However, eBART's low cost per train mile is in large part due to its operation as a frequent shuttle service without conductors, which reduces labor costs compared to a commuter-style service.



**Figure 3-1. O&M Cost (Crew Labor, Fuel, and Vehicle Maintenance) per Train Revenue Mile by DMU Operator**



## 3.2 Estimated Annual O&M Costs

The total cost per TRM as listed in Table 3-6 above was applied to each operating service scenario. Five Operating Service Scenarios are under consideration:

- SBCTA FLIRT Plan
  - Antelope Valley Line LA Union Station-Santa Clarita (AVL-SC)
  - San Bernardino Line LA Union Station-San Bernardino (SBL)
- Caltrans FLIRT Plan
  - Antelope Valley Line LA Union Station-Lancaster (AVL-Lan)
  - Antelope Valley Line LA Union Station-Santa Clarita (AVL-SC)
  - San Bernardino Line LA Union Station-San Bernardino (SBL)

For each of these scenarios, an estimate is given for the annual O&M costs if the service was provided by:

- LHC
- ZEMU (assuming lower hydrogen and maintenance costs)
- ZEMU (assuming higher hydrogen and maintenance costs)

Table 3-7 and Table 3-8 below show the estimated annual O&M cost for the service identified to be replaced with ZEMUs. Note that the revenue miles are lower on the AVL-SC for ZEMUs because the first and last trips are eliminated by servicing ZEMUs at a new maintenance facility near Santa Clarita at Lang.

**Table 3-8. O&M Cost by Line and Vehicle (SBCTA FLIRT Plan)**

| Operating Line               | Vehicle Type  | Annual TRM | O&M per TRM | Annual O&M Cost | Cost Difference from LHC |
|------------------------------|---------------|------------|-------------|-----------------|--------------------------|
| AVL-SC                       | LHC (4-car)   | 296,514    | \$41.19     | \$12,213,000    | N/A                      |
|                              | ZEMU-5 (low)  | 244,188    | \$42.58     | \$10,398,000    | <b>\$(1,815,000)</b>     |
|                              | ZEMU-5 (high) | 244,188    | \$65.78     | \$16,062,000    | \$3,849,000              |
| SBL                          | LHC (4-car)   | 88,128     | \$41.19     | \$3,630,000     | N/A                      |
|                              | ZEMU-5 (low)  | 88,128     | \$42.58     | \$3,753,000     | \$123,000                |
|                              | ZEMU-5 (high) | 88,128     | \$65.78     | \$5,797,000     | \$2,167,000              |
| Total For All Three Services | LHC           | 384,642    | n/a         | \$15,843,000    | N/A                      |
|                              | ZEMU (low)    | 332,316    | n/a         | \$14,151,000    | <b>\$(1,692,000)</b>     |
|                              | ZEMU (high)   | 332,316    | n/a         | \$21,859,000    | \$6,016,000              |

For the AVL, the anticipated change in O&M cost to replace all three LHCs operating between LAUS and Santa Clarita with 5-car ZEMUs ranges from a savings of approximately \$1.8M per year to an increase of just over \$3.8 million per year. Again, the potential to yield operational savings is largely a result of efficiencies gained from the new outlying maintenance facility, not the change in vehicle type.

For the SBL, the anticipated change in O&M cost to replace three LHCs with three 5-car ZEMUs ranges from an increase of approximately \$100,000 per year to an increase of \$2.2 million.

**Table 3-9. O&M Cost by Line and Vehicle (Caltrans FLIRT Plan)**

| Operating Line               | Vehicle Type  | Annual TRM | O&M per TRM | Annual O&M Cost | Cost Difference from LHC |
|------------------------------|---------------|------------|-------------|-----------------|--------------------------|
| AVL-Lan                      | LHC (4-car)   | 234,396    | \$41.19     | \$9,655,000     | N/A                      |
|                              | ZEMU-8 (low)  | 234,396    | \$70.66     | \$16,563,000    | \$6,908,000              |
|                              | ZEMU-8 (high) | 234,396    | \$110.48    | \$25,897,000    | \$16,242,000             |
| AVL-SC                       | LHC           | 296,514    | \$41.19     | \$12,213,000    | N/A                      |
|                              | ZEMU-4 (low)  | 244,188    | \$39.18     | \$9,568,000     | <b>\$(2,645,000)</b>     |
|                              | ZEMU-4 (high) | 244,188    | \$59.09     | \$14,430,000    | \$2,217,000              |
| SBL                          | LHC (4-car)   | 264,384    | \$41.19     | \$10,890,000    | N/A                      |
|                              | ZEMU-8 (low)  | 264,384    | \$70.66     | \$18,682,000    | \$7,792,000              |
|                              | ZEMU-8 (high) | 264,384    | \$110.48    | \$29,210,000    | \$18,320,000             |
| Total For All Three Services | LHC           | 795,294    | \$41.19     | \$32,758,000    | N/A                      |
|                              | ZEMU (low)    | 742,968    | varies      | \$44,813,000    | \$12,055,000             |
|                              | ZEMU (high)   | 742,968    | varies      | \$69,537,000    | \$36,779,000             |

For the AVL, the anticipated change in O&M cost to replace two of the eight equipment cycles operating between LAUS and Lancaster with 8-car ZEMUs ranges from an increase of approximately \$7 million per year to an increase of \$16 million. The anticipated change in O&M cost to replace all three LHCs operating between LAUS and Santa Clarita with 4-car ZEMUs ranges from a savings of approximately \$2.6 million per year to an increase of \$2.2 million per year.

Operating ZEMUs out of a new facility near Santa Clarita has the potential to yield operational savings because three round trips to and from LAUS could be eliminated; however, it should be noted that this

is largely a result of efficiencies gained from the new outlying maintenance facility, not the change in vehicle type.

For the SBL, the anticipated change in O&M cost to replace three LHCs with three 8-car ZEMUs ranges from an increase of approximately \$7.8 million per year to an increase of \$18.3 million.

## 4 Vehicle Requirements

### 4.1 ZEMU Specification and Performance

#### 4.1.1 Train Consists

The ridership analysis shows that MU trains longer than the existing 2-car sets are required to accommodate the expected ridership at the times and routes where these trains are deployed. The composition of an adequately sized trainset can be done in two ways. The first approach would be to use a single 5-car MU train for this line, which is understood to be the maximum length that a permanently connected train using the SBCTA FLIRT design can achieve compliance with crashworthiness standards. This type of train would work as a unit, with all 5-cars being permanently coupled together. Any failure or incident with this type of vehicle would require the removal and maintenance of the entire train set.

An alternative approach would involve the procurement of smaller 2-car, 3-car, or 4-car units that would be coupled together to form a longer train. This approach could provide more operational flexibility as only one of the two MU trains in a consist would need to be removed from service in case of failure or when periodic maintenance is required. 2-car units could also provide operating flexibility for the Arrow Service and could be used in combination with the Arrow fleet to provide service on both the Arrow Service and SBL.

There are two main disadvantages of this approach. The first is the cost of the vehicles themselves. Each of the shorter vehicles is equipped with a full set of vehicle systems that allow them to operate as individual vehicles. Those systems are both expensive to procure as part of the train and require regular maintenance. Longer MU trains are instead equipped with intermediate cars that piggyback on the existing control systems and only require systems to maintain passenger comfort and safety (e.g., seats, lighting, doors, ventilation, and air conditioning). The incremental cost of adding two intermediate cars to an existing MU train is approximately half of the cost of adding a 2-car MU to the fleet. Another disadvantage with coupling individual MU trains to form longer consists is the lack of walk-through capability for the entire train. That would not allow passengers to easily traverse the train to find empty seats and would require a conductor in both halves of the train to be able to respond to passengers in the event of an incident. The ability to move between cars is of particular importance at the Cal State LA station on the SBL, which has a short platform (258') that only allows passengers to exit the train from certain cars. On account of these disadvantages, the Project team developed a mixed fleet service plan assuming that permanently coupled 5-car trainsets would be procured, with the vehicle based on a lengthened version of the model procured by SBCTA. However, given that opportunities to operate 5-car MUs are limited by ridership capacity, a second mixed fleet service plan was developed using 4-car MUs coupled to create 8-car trains. This plan was based on the model currently being procured by Caltrans, which has slightly longer cars.

Given the length of trips on the Metrolink system, passenger coaches are equipped with restrooms, but the MUs serving the shorter Arrow Service are not. The SBCTA FLIRT could be modified to add

restrooms, and each restroom added is estimated to reduce seating capacity by 16 seats. The 4-car Caltrans vehicles are outfitted with bathrooms, vending machines, and expanded bike storage.

#### 4.1.2 Acceleration

Both the diesel and hydrogen FLIRTs procured by SBCTA for the Arrow Service have reduced acceleration compared to the slowest performing locomotives in Metrolink's fleet, upon which Metrolink's schedule is built. While this is less problematic on the flatter SBL, this FLIRT model would be incapable of meeting the schedule on the AVL due to the steep grades found between Los Angeles and Santa Clarita, as described in Section 2.3.4. Note that the Stadler FLIRT vehicles being procured by Caltrans have a design that allows flexibility in the number of powered axles, size of the power pack, and size of batteries. It will be possible to specify a ZEMU from Stadler that will be able to accelerate as well as SCRRA's LHCs to meet operational needs of the AVL. However, this may result in lower fuel efficiency or operating range than the model used for the Arrow Service.

#### 4.1.3 Operating Range

The range of ZEMU vehicles is limited when compared to DMUs and is impacted by factors such as ambient temperature and end of line dwell times. Service simulations have been performed using a 5-car consist over both the SBL and AVL.

SBCTA's current 2-car ZEMU vehicle has been designed to complete two round trips between Redlands University and LAUS before needing to be refueled. Service simulations performed by Stadler, the vehicle manufacturer, have shown that an expanded ZEMU consist of up to 5 cars can also make two round trips between these stations on the San Bernardino Line. With the addition of each intermediate car to the base 2-car consist, additional batteries are also added. The capacity in those batteries will allow the train to recover more braking energy and store more excess power from the fuel cells. This will allow the longer trains to retain the range of the shorter 2-car SBCTA ZEMU without needing additional hydrogen fuel to complete these trips.

The AVL is the most challenging line for operating ZEMU vehicles because of the long and steep grades that form much of the alignment. Proposed service on the AVL includes trains that operate from LAUS to Lancaster and trains that only operate from LAUS to Santa Clarita. For the full line, simulations showed that the train could only complete one round trip without refueling. In operation to Santa Clarita, a ZEMU vehicle could complete four round trips before needing to be refueled.

The Caltrans vehicle has a larger power pack and additional batteries compared to the SBCTA vehicle, providing approximately 20 percent more range. However, this is assumed to be offset by additional power required to meet the schedule as noted in Section 4.1.2 above.

#### 4.1.4 Vehicle Refueling

The duration of hydrogen refueling is greatly dependent on the type of refueling equipment that is used. The basic mobile fueler setup that is currently used for the SBCTA ZEMU will not be able to consistently deliver the shortest possible fueling times, especially on days with high ambient temperatures. The critical determinant in the refueling speed is the temperature of the hydrogen inside the tanks, which cannot exceed a predetermined value during the refueling process. The best method to control this temperature is to pre-cool the hydrogen prior to pumping it into the hydrogen tanks.

Refueling tests with hydrogen tanks have shown that, with proper fueling infrastructure and hydrogen cooled to approximately 15° F, fill times of 25 minutes in ambient conditions of approximately 110° F

could be achieved. This would require fueling infrastructure that would pre-cool the hydrogen prior to fueling. Fueling infrastructure would be provided at facilities at which the trains are stored and maintained as described in Section 5.1 (EMF for the SBL and a new facility for the AVL). As described in Section 2, midday refueling needs would require fueling infrastructure to also be provided near LAUS for the ZEMU serving the SBL, and addition of a fourth trainset to the AVL equipment rotation would be needed because the original service plan exceeds the range of the vehicles and does not provide opportunities for midday refueling of the trains operating between LAUS and Santa Clarita.

## 4.2 Estimated Capital Cost for ZEMUs

Battery electric and hydrogen fuel cell trainset technology is in its infancy both in the United States (US) and in the global market. Fewer than a dozen zero emission train projects have been contracted to date, with only two of those being in the US market. As a result, few data points, in terms of published vehicle pricing, are available that could be used to accurately estimate the cost of zero emission trainsets. Further complicating matters is the fact that all current zero-emission trainset manufacturers that are active in the US market are foreign based entities. In general, these firms charge a premium for the delivery of equipment to the US market. For this reason, pricing data from equipment procurements in Europe cannot be used effectively to estimate the cost of similar rail equipment in the US. This then leaves the two currently active ZEMU procurements in the US, along with a small handful of recent Diesel MU procurements as a base for estimating the cost of five-car ZEMU trainsets for Metrolink. All recent MU procurements in the US involved a single vehicle supplier, Stadler. Table 4-1 summarizes recent MU procurements in the US for both DMU and ZEMU vehicles.

**Table 4-1. Recent MU Procurement Prices (millions)**

| Railroad                  | Location           | Year | Vehicle Type | Number of Units | Unit Size | Contract Value | Price per Unit |
|---------------------------|--------------------|------|--------------|-----------------|-----------|----------------|----------------|
| TEX Rail                  | Fort Worth, TX     | 2016 | FLIRT DMU    | 8               | 4-car     | \$100          | \$12.5         |
| SBCTA (Metrolink)         | San Bernardino, CA | 2018 | FLIRT DMU    | 3               | 2-car     | \$31.4         | \$10.4         |
| Dallas Area Rapid Transit | Dallas, TX         | 2019 | FLIRT DMU    | 8               | 4-car     | \$119          | \$14.9         |
| SBCTA (Metrolink)         | San Bernardino, CA | 2019 | FLIRT ZEMU   | 1               | 2-car     | \$12           | \$12           |
| Caltrans                  | Sacramento, CA     | 2023 | FLIRT ZEMU   | 10              | 4-car     | \$207*         | \$20.7*        |
| TEX Rail                  | Fort Worth, TX     | 2024 | FLIRT DMU    | 4               | 4-car     | \$65           | \$16.3         |

\*Since the original procurement, Caltrans has executed change orders that increase the contract price to provide additional capabilities for operations throughout the state

The vehicle cost in each of the above procurements shows a clear inflationary trend in the total vehicle cost with an additional premium added for the addition of zero emission propulsion equipment to the vehicles. The amount paid by Caltrans for each of their ZEMU trainsets is the most recent unit cost of a four car ZEMU trainset. To account for inflation and additional redesign of the vehicle to meet the needs of Metrolink service, a cost of \$25 million is assumed. Relative to the SBCTA vehicle, the Caltrans vehicle has more trucks, more batteries and a bigger power pack. Therefore, it is assumed

that the reduction in these elements will offset the cost of adding a fifth car to the SBCTA vehicle, and pricing per unit would be similar.

## 4.3 Vehicle Procurement Approach

### 4.3.1 Procurement Options

There are currently three possible avenues for procurement of ZEMU trainsets for service on Metrolink's SBL and AVL. The most conventional approach would be to pursue an open procurement where any interested supplier would be able to bid on a contract to supply trainsets to SCRRA. Two additional possibilities exist, both involving the purchase of option vehicles using existing contract vehicles. Both SBCTA and Caltrans hold options to purchase additional Stadler FLIRT ZEMU vehicles beyond those that have already been purchased. Each of these possibilities is discussed below.

#### Option 1: Open RFP Process

This approach would involve the preparation and release of a request for proposals (RFP) package for an open procurement of the required ZEMU vehicles. However, in SCRRA's situation, this process may not follow the same pattern as other vehicle procurements. Currently, only one manufacturer (Stadler) offers ZEMU vehicles in the US market. It is very likely that an open RFP process will produce a single bidder.

The advantage of the RFP process is that it would permit SCRRA to specify a desired vehicle configuration and other systems preferences. This would be particularly important if SCRRA is interested in adding components beyond those included in the basic vehicle design or covered by SBCTA's contract options, which provide for addition of sliding steps and luggage storage racks.

The main disadvantage of the RFP process is the cost involved in managing the RFP process on the agency side and the potential additional cost for the vehicle supplier to duplicate design review and production management activities that would be required to document the technical aspects of the procurement.

#### Option 2: Assuming SBCTA's Option Vehicles

In general, the purchase of option vehicles using an existing contract vehicle can be advantageous for several reasons. First, it greatly lowers the costs for the purchasing agency of preparing and publishing an RFP, as well as many of the costs associated with managing the technical and administrative portions of a vehicle procurement. From a vehicle pricing perspective, one-time costs, such as most engineering and some testing costs, could likewise be greatly reduced with option vehicles. On the other hand, the agency that purchases option vehicles will not have much control over the configuration of the train with respect to some interior arrangement, design, and optional equipment. Some of these items could be changed on option vehicles, but additional costs would need to be incurred to make those changes. The configuration of the option vehicles would need to be assessed to understand whether they would be acceptable to purchase in their existing configuration.

SBCTA has an additional 4 option vehicles on their current ZEMU procurement contract. These vehicles have the same two-car configuration as the current SBCTA ZEMU. The addition of middle sections to the basic two-car vehicle design would result in some additional effort from Stadler. There are some differences between the FLIRT configuration that was chosen by SBCTA and that of the Caltrans vehicles that are currently on order. Much of the design work undertaken for the Caltrans



ZEMUs could be transferred to a lengthened SBCTA ZEMU but some new design work would be required to account for the differences between those vehicles.

To pursue this approach, the options on the existing contract would still need to be valid. SCRRA would need to verify that the SBCTA options are still available, and that the validity of those options could be extended to meet SCRRA's procurement timelines.

### Option 3: Assuming Caltrans Option Vehicles

Caltrans is currently purchasing 10 four-car Stadler FLIRT ZEMU vehicles and holds an option to purchase 19 additional trainsets under the existing contract. These trains feature an extended power pack to provide more range than the SBCTA ZEMU and can be extended to add an additional center car to turn them into five-car trainsets. Due to the modularity of the design of the FLIRT platform, the addition of another middle section would not pose a significant technical challenge for Stadler.

As with the SBCTA options, the availability of option vehicles is dependent on the contract owner's future fleet plans and willingness to assign option vehicles to a sister agency. Given the large remaining number of unused option vehicles, there is a possibility that Caltrans might be willing to assign some of these vehicle options to SCRRA.

## 4.3.2 Procurement Schedule

Procurement timelines can vary depending on the approach that is taken. Options 2 and 3 in the above section would likely yield the shortest procurement times as the process to produce procurement documents and to complete the RFP process. Procurement documents can take 6 to 9 months to prepare, and an RFP process could also take 9 months to a year.

Once a contract is executed with a vehicle supplier, the process to manufacture, validate, and accept rail vehicles typically takes 36 to 40 months. This time interval depends on several factors, including available manufacturing capability of the car builder and the level of new design required for the vehicle. For the proposed fleet of 17 4-car trains, it is conservatively assumed that deliveries would be spaced over two years.

In the above procurement scenarios, the duration of the procurement going through an RFP process would take approximately 5 years as the RFP preparation and supplier selection process would need to be added to the manufacturing time. Assuming SBCTA's options would cut a year or more out of this process as SBCTA's procurement documentation and agreements are already in place and would require only adjustment of quantities and other minor provisions in the current documents.

Option 3 could yield the best reduction in procurement duration, but it is difficult to quantify the potential time savings at this juncture without a firm procurement timeline.

## 4.4 Mixed Fleet Capital Cost Comparison

Since service expansion as envisioned in the Service Growth Development Plan will require fleet expansion that could be accomplished through purchase of either MUs of LHC, a cost comparison was developed of the baseline LHC plan and the mixed fleet scenarios. Since Metrolink rolling stock currently functions as a single fleet with some trainsets operating on multiple lines in a single day and shared spare equipment pools, costs have been developed at a systemwide level and cannot be easily assigned to individual lines.

The mixed fleet equipment costs are based on several key assumptions. Systemwide equipment needs are based on SGDP equipment cycles for the proposed service plan, with the understanding that alternative service plans could further optimize equipment and support service expansion using the existing fleet. All vehicle types are assumed to require a 15 percent spare ratio. The future LHC fleet is expected to have trainsets with an average length of five cars consisting of four coaches and one cab car, but MU equipment is assumed to replace only 4-car sets (three coaches and one cab car). Thus, each LHC set replaced with an MU reduced the required number of coaches for daily service by three.

Unit cost assumptions for LHCs were derived from recent procurements by other agencies, escalated to 2026 dollars at five percent per year. Locomotives are estimated at \$13.9 million each based on a 2024 procurement of five Tier 4 locomotives by Dallas Area Rapid Transit.<sup>2</sup> Coaches and cab cars are estimated to cost \$5 million and \$5.6 million each, respectively, based on a 2020 NCTD procurement.<sup>3</sup> A 4-car FLIRT set is projected to cost \$25 million, which includes any necessary redesign work. The representative cost per trainset is estimated at \$34.5 million for a 4-car LHC, \$25 million for a 4-car MU, and \$50 million for an 8-car MU. However, it should be noted that LHCs do not need to be purchased as complete trainsets because locomotives and coaches can be purchased separately as needed. As shown in Table 4-2, the total expansion cost required to implement the schedules outlined in the SGDP is estimated at \$493 million when operating only LHC equipment and \$660 million when operating a mixed fleet with 8-car Caltrans trains. This is an overall cost increase of \$168 million for the mixed fleet scenario. The mixed fleet using a smaller number of 5-car SBCTA vehicles is estimated to be similar to the LHC expansion at \$501 million, representing an increase of only \$8.33. It is important to note that both capital and operating funding for the schedules in the SGDP are uncommitted, and Metrolink is continuing to explore alternative service plans that could optimize the use of the existing equipment.

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<sup>2</sup> DART Locomotive Contract Award

<sup>3</sup> NCTD Board Presentation on COASTER Coach and Cab Car Purchase

**Table 4-2. Fleet Expansion Cost by Service Scenario (millions of 2026 dollars)**

|                                                        | Vehicles<br>in Daily<br>Service | Spare | Total | Existing<br>Fleet | Expansion<br>Need | Unit Cost | Total Cost      |
|--------------------------------------------------------|---------------------------------|-------|-------|-------------------|-------------------|-----------|-----------------|
| <b>SGDP Baseline (LHC Only)</b>                        |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 57                              | 9     | 66    | 60                | 6                 | \$13.90   | \$83.40         |
| Coaches                                                | 228                             | 35    | 263   | 201               | 62                | \$5.00    | \$310.00        |
| Cab Cars                                               | 57                              | 9     | 66    | 57                | 9                 | \$5.60    | \$50.40         |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$443.80        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$48.82         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$492.62</b> |
| <b>Mixed Fleet, SBCTA vehicle</b>                      |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 53                              | 8     | 61    | 60                | 1                 | \$13.90   | \$13.90         |
| Coaches                                                | 216                             | 33    | 249   | 201               | 48                | \$5.00    | \$240.00        |
| Cab Cars                                               | 53                              | 8     | 61    | 57                | 4                 | \$5.60    | \$22.40         |
| 5-Car MUs                                              | 5                               | 2     | 7     | 0                 | 7                 | \$25.00   | \$175.00        |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$451.30        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$49.64         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$500.94</b> |
| Cost Difference                                        |                                 |       |       |                   |                   |           | \$8.33          |
| <b>Mixed Fleet, Caltrans vehicle</b>                   |                                 |       |       |                   |                   |           |                 |
| Locomotives                                            | 49                              | 8     | 57    | 60                | 0                 | \$13.90   | -               |
| Coaches                                                | 204                             | 31    | 235   | 201               | 34                | \$5.00    | \$170.00        |
| Cab Cars                                               | 49                              | 8     | 57    | 57                | 0                 | \$5.60    | -               |
| 4-Car MUs                                              | 14                              | 3     | 17    | 0                 | 17                | \$25.00   | \$425.00        |
| Total Vehicle Cost                                     |                                 |       |       |                   |                   |           | \$595.00        |
| Procurement, Contract Management, and Inspection (11%) |                                 |       |       |                   |                   |           | \$65.45         |
| <b>Total Expansion Cost</b>                            |                                 |       |       |                   |                   |           | <b>\$660.45</b> |
| Cost Difference                                        |                                 |       |       |                   |                   |           | \$167.83        |

## 5 Infrastructure Requirements

Operating MUs on the existing system will require modifications to existing infrastructure. Firstly, the new vehicles will need a place for overnight storage, maintenance, and fueling. For the SBL, this could occur at EMF, but modifications would be required to accommodate the differences in vehicle type and fuel source. For the AVL, a new facility near CP Lang just outside of Santa Clarita is proposed. Secondly, the MU vehicles interact differently with the automated signaling system, which necessitates modifications to preserve safe operating conditions.

Interface between the new vehicles, which have a slightly different floor height from existing vehicles, and the existing platforms was also considered. Access to disabled riders can be provided using existing mini-high platforms used for LHC trains without modifying existing platforms.

### 5.1 Maintenance Facilities

The MU vehicles needed for the proposed mixed fleet service plans would need to be stored, fueled, and maintained, and they have unique needs compared to locomotives. Existing maintenance facilities were assessed for the potential to support MUs. Modifications to EMF, including construction of a new maintenance facility building, and installation of a hydrogen fueling station at CMF or Keller Yard were determined to be necessary for the proposed SBL mixed service, and a new maintenance facility

building and yard would be required for mixed fleet service on the AVL. The detailed methodology and assumptions of the facility analysis are described in Appendix B, the Facility Master Plan. The location of existing and planned maintenance facilities are shown in the figure below.

**Figure 5-1: Existing and Planned Maintenance Facilities**



### 5.1.1 San Bernardino Line

The existing 2-car MU fleet for the Arrow service is stored and serviced at AMF. The majority of LHCs in the SGDP operating plans for the SBL would be stored at EMF, with one stored at CMF. The trainsets identified in mixed fleet service plans (Section 2.2) as potentially suitable for replacement with an MU would originate at the eastern end of the SBL, so AMF and EMF were assessed for suitability of maintaining the longer MUs needed for the service. Storing and maintaining the trains at AMF was determined to be infeasible for several reasons:

- 4 or 5-car trainsets would not fit in the existing building
- Exterior space would not fit 4 or 5-car consists
- Space for additional parts storage is limited
- There is insufficient space for expansion

In addition to storage, fueling and maintenance at EMF, MUs would need infrastructure to support midday refueling near LAUS on account of their limited range. Potential sites include Keller Yard, the Rondout Street location described further under section 7.3.2, or a site northeast of CMF. Installation of hydrogen fueling stations at one of these sites is estimated to cost \$18.05 million.

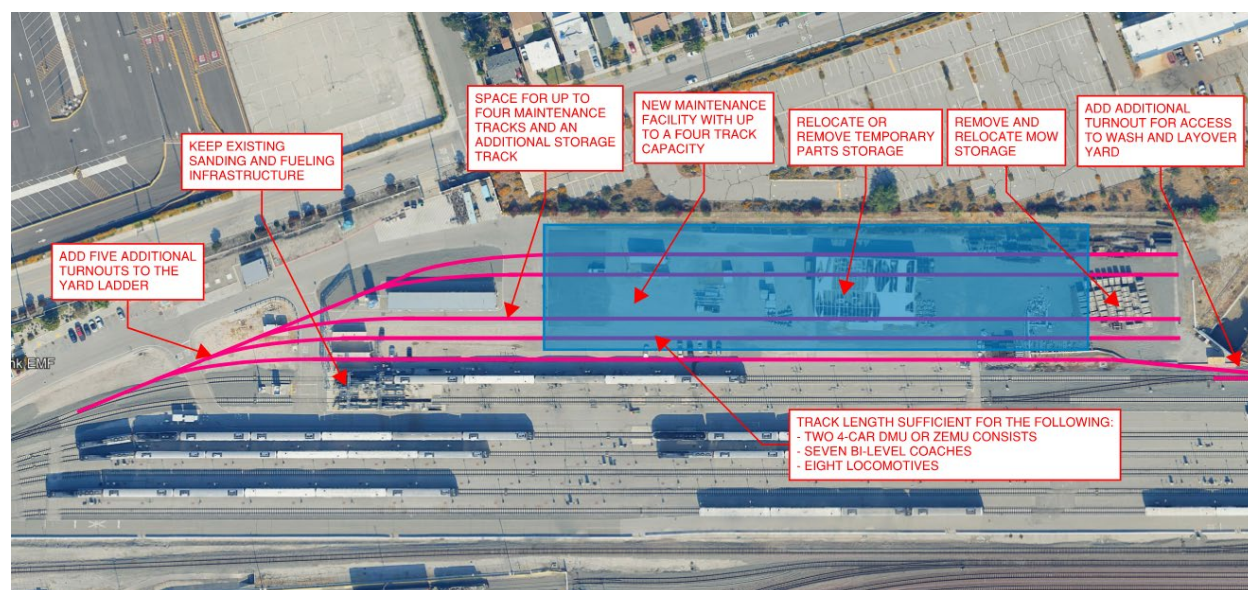
### Initial EMF Concept (SBCTA FLIRT Service Plan)

EMF was determined to have sufficient space to accommodate construction of a new maintenance facility building and yard tracks to support the service plan using two SBCTA 5-car FLIRT vehicles. The expansion is estimated to cost \$91.3 million, as shown in Table 5-1. It should be noted that SCRRA is beginning the design process to expand EMF with the intent to add capacity for LHCs, and the modifications needed to support MU operations may conflict with these improvements. While a facility could support both LHCs and MUs, current plans for EMF expansion only support LHC operations. As that project progresses, SCRRA and SBCTA should coordinate to determine the best use of the facility and how it will be ultimately built out. Costs to support the needs of LHC fleet expansion are not included in the estimate below for the Initial EMF concept.

**Table 5-1. EMF Expansion Cost Estimate, SBCTA FLIRT Mixed Fleet Plan**

| Element                                 | Cost                |
|-----------------------------------------|---------------------|
| Facility Construction                   | \$56,006,191        |
| Construction Contingency (25%)          | \$14,001,548        |
| Environmental (3%)                      | \$1,680,186         |
| Design (12%)                            | \$6,720,743         |
| Design Support During Construction (5%) | \$2,800,310         |
| Construction Management (8%)            | \$4,480,495         |
| Agency Costs (10%)                      | \$5,600,619         |
| <b>Total</b>                            | <b>\$91,290,092</b> |

**Figure 5-2. EMF Conceptual Map, SBCTA FLIRT Mixed Fleet Plan**



## Expanded EMF Concept (Caltrans FLIRT Service Plan)

As noted above, EMF is planned for expansion to accommodate more LHCs, and this may conflict with the initial concept developed for the SBCTA FLIRT service plan. For the Caltrans FLIRT service plan, seven 4-car MUs and 16 LHCs would need to be stored at EMF. To accommodate both the larger MU fleet and expansion of the LHC fleet, a concept was developed for a full-service maintenance facility to accommodate both vehicle types. This facility would occupy the full site and require bridging over the Lytle Creek Channel to effectively use the southeast half of the site for rail vehicle circulation. The costs shown below account for expansion of the facility to support both vehicle types needed for the mixed fleet service plan.

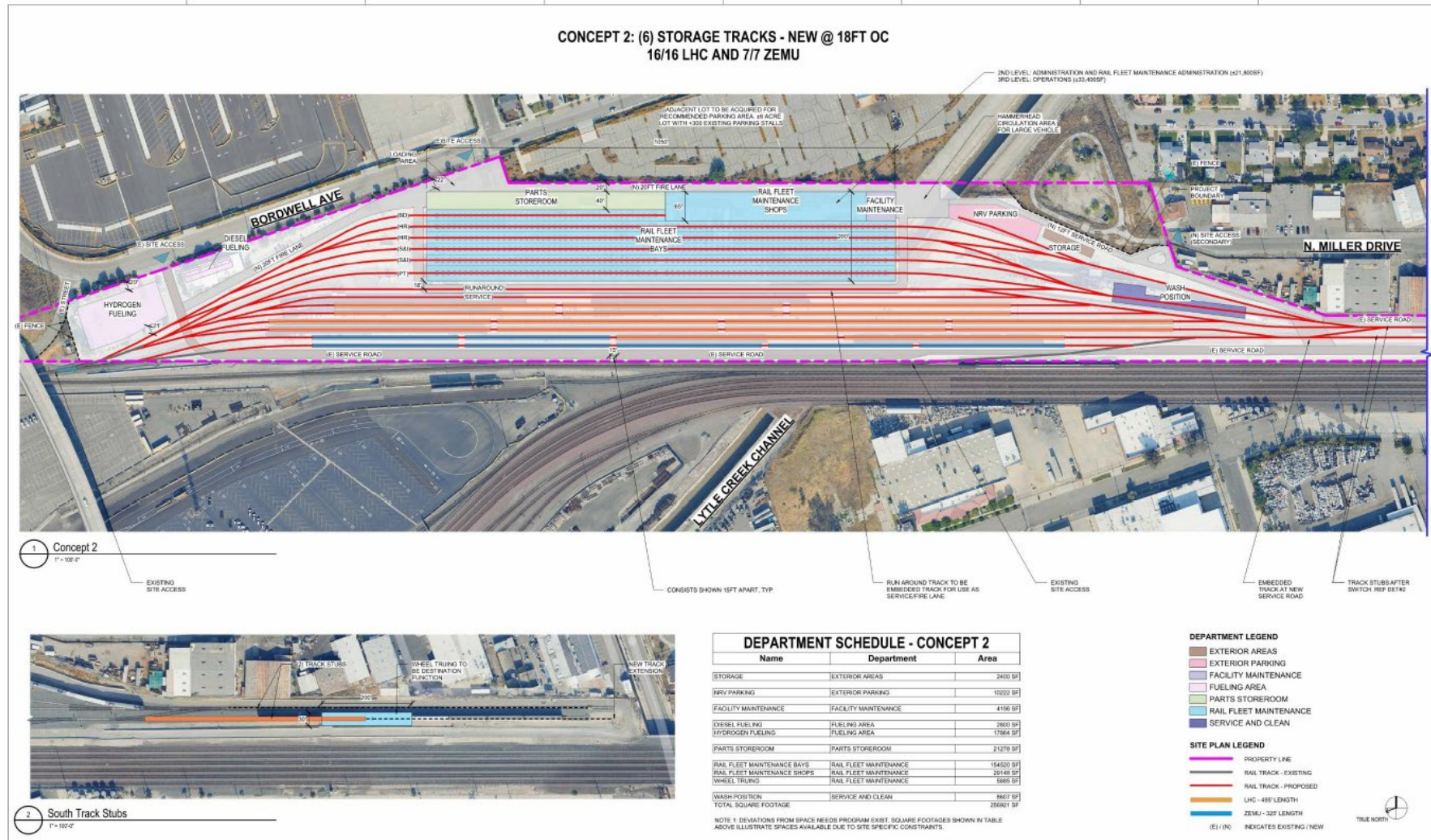
**Table 5-2. EMF Expansion Estimate, Caltrans FLIRT Mixed Fleet Plan**

| Element                                 | Cost                 |
|-----------------------------------------|----------------------|
| Facility Construction                   | \$275,369,600        |
| Construction Contingency (25%)          | \$68,842,400         |
| Environmental (3%)                      | \$8,261,088          |
| Design (12%)                            | \$33,044,352         |
| Design Support During Construction (5%) | \$13,768,480         |
| Construction Management (8%)            | \$22,029,568         |
| Agency Costs (10%)                      | \$27,536,960         |
| <b>Total</b>                            | <b>\$448,852,448</b> |



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Figure 5-3. EMF Conceptual Plan, Caltrans FLIRT Mixed Fleet Plan



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### 5.1.2 Antelope Valley Line

The SGDP operating plan assumed that trains operating between LAUS and Santa Clarita would be stored and maintained at CMF, and trains operating between LAUS and Lancaster would be stored in Lancaster and maintained at CMF. However, the locomotive maintenance buildings at CMF are unable to handle the extended length of MU trainsets since the vehicles are permanently linked together. Furthermore, overall planned service growth does not leave capacity for expansion of CMF. Therefore, a new facility along the AVL would be needed to accommodate the MU vehicles needed for the proposed service plans. As noted in Section 2.3, SCRRA staff advised that first and last train moves in the SGDP schedules were primarily for positioning the trains and originating at Santa Clarita would be preferable if a facility were available nearby. Placement of a facility east of Santa Clarita station would eliminate the need for non-revenue movements between Santa Clarita and the CMF. Non-Revenue movements add to the overall operating cost and utilize valuable capacity that could otherwise be used for revenue moves.

The SGDP operating plan calls for eight LHC sets to be stored at Lancaster, where additional layover capacity is planned through the Lancaster Terminal Improvements Project. The mixed fleet plan using Caltrans vehicles calls for two LHC trainsets to be replaced with five 4-car MU trainsets. The design for the Lancaster Terminal Improvements Project was reviewed to assess the potential for modifications to accommodate all vehicles in the service plan. It was determined that the Lancaster layover facility site would not be able to accommodate all vehicles, so a site selection process was undertaken to identify a location that could accommodate all 10 MU trainsets proposed for the AVL. However, the Lancaster facility does have the capacity to accommodate hydrogen fueling infrastructure to support midday refueling of MUs.

The Project team evaluated potential facility sites along the existing AVL main line. Three sites were selected based on their size and location along the main line. Minimal site impact was also looked at, such as the least amount of possible grading and earthwork required and not being in close proximity to residential areas. The Project Team began their analysis by identifying criteria for site evaluation including site acreage vs program acreage, existing site conditions, existing site access, adjacent properties, and site ownership. The three sites were further analyzed to identify the major areas in the Space Needs Program and fitting the specified program onto the sites selected. These concepts were then presented to the key stakeholders for review and a site in vicinity of Lang Station Road was selected as the preferred site by the Planning Team.

The site of approximately 16.5 acres is located 9.2 miles east of the Santa Clarita Metrolink Station, at the former location of the Historic Lang Southern Pacific Station. The southern portion of the site is curved with the existing AVL running along its curvature. The north end of the site has a drop in grade towards the Santa Clara River. The overall area is relatively flat, and was formerly used for construction staging. Primary access to the site will be from the east via Lang Station Road. The site is in a rural area with other industrial sites in the vicinity. A portion of the site is already owned by Metro, with the remainder owned by Calmat Properties.

Several conceptual layouts were developed and discussed with project stakeholders, resulting in a recommended conceptual design. An initial concept was developed with storage capacity for five MU trainsets, consistent with the fleet needs for the LAUS-Santa Clarita trips in both service plans. After determining that Lancaster would not be able to accommodate additional MU storage, the initial concept for the Lang Facility was reviewed to assess if storage of an additional five MU vehicles was possible. Concept adjustments were made while keeping the impact of the final concept to a minimum.

Additional storage tracks were added while maintaining the footprint of the site. Table 5-3 presents the estimate design and construction cost for the Lang Facility, assuming the storage of 10 MU vehicles.

**Table 5-3. Lang Facility Cost Estimate**

| Element                                 | Cost                 |
|-----------------------------------------|----------------------|
| Facility Construction                   | \$294,071,200        |
| Construction Contingency (15%)          | \$73,517,800         |
| Environmental (3%)                      | \$8,822,136          |
| Design (12%)                            | \$35,288,544         |
| Design Support During Construction (5%) | \$14,703,560         |
| Construction Management (8%)            | \$23,525,696         |
| Agency Costs (10%)                      | \$29,407,120         |
| <b>Total</b>                            | <b>\$479,336,056</b> |



Figure 5-4. Lang Conceptual Plan





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### 5.1.3 Value Engineering Opportunities

The facility concepts developed for each line provide for full maintenance of MU vehicles. If mixed-fleet service were implemented on either line alone, this would be required to support operation of the new vehicles. However, if the mixed fleet plan is implemented for both lines together, heavy maintenance functions would only be needed at one location, and vehicles could be stored at a less-costly facility and deadheaded to the primary facility for occasional maintenance functions.

If this approach is taken, it is recommended that the Lang Facility be the primary maintenance site. Due to the larger fleet planned to be stored there and its location closer to LAUS, this would be more operationally efficient compared to making EMF the primary MU facility. Since the Lang Facility would be brand new, it would also reduce operational impacts during construction.

## 5.2 Signaling

Several changes to the existing Metrolink crossing and wayside signal systems can be made in each subdivision to enhance MU shunting and operation on these lines. SCRRA is currently operating MU vehicles on the SBL from Redlands University Station to San Bernardino Downtown Station. This service is identified as the Arrow Service.

### 5.2.1 MU Shunting Difficulties

MU vehicles are lighter than passenger and freight trains. Lighter-weight vehicles have demonstrated track circuit shunting issues in the past. The FRA has studied train characteristics and track conditions affecting shunting performance on the railroads, with findings published in Research Results 21-13 dated July 2021.<sup>4</sup> The study states that track circuit performance degradation (loss of shunt [LOS]) is a rare problem with potentially significant safety implications for track circuit-based train detection devices. Track circuit performance degradation can occur when a train or rail vehicle cannot shunt an open electrical circuit in the track. This degradation affects grade crossing warning devices, detection of trains by the signaling system, and in some cases detection of broken rail. Rail corrosion and contaminants, wheel-rail contact, track circuit design, and maintenance issues are all possible causes of track circuit degradation. The FRA study states that previous studies have found that track circuit degradation occurs due to issues at the wheel and rail contact patch. Wheel/rail contaminants include sand, track and wheel lubricants, brake shoe materials, track materials, and windblown materials such as leaves and plants. The presence of any of these contaminants impact the wheel to rail contact causing a LOS. The study also determined that low wheel loads, rail corrosion on lightly used lines, rail contamination (leaves, car lading, sand), weather, fouled ballast, and light car braking at high speeds were factors that contributed to track circuit performance degradation.

The wheel to rail contact area for MU vehicles is small, about 0.39 square inches, and is the only contact between the train and rail to shunt the track circuit. A temporary loss of electrical continuity between the rails and the wheels of a train results in LOS. Metrolink passenger trains and freight trains currently operate on the SCRRA San Gabriel and Valley Subdivisions. The weight of the train, and number of wheels/axles influences the connectivity at the contact area. The greater the weight (axle load), the better the wheel-rail contact, creating a better shunt. The MU vehicles currently in use on the Arrow Service have 16 points of contact (wheels) with the rail and exert about 10 tons of pressure

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<sup>4</sup> Research Results 21-13, Track Circuit Shunting Performance Study.

per wheel. Freight trains consist of several hundred axles with each providing 10 to 20 tons of pressure at the contact point. Passenger trains with locomotives have eight wheels per vehicle with around a 42-ton axle load. Under ideal conditions, with clean rail, proper rail surface contour, and clean wheels with proper profile, the shunt would be good for the MU vehicles.

It is SCRRA's policy to equip all public highway-rail grade crossings with active warning devices. Active warning devices consist of gates, flashing lights, and bells. These devices are controlled by constant warning devices (CWD) and are used in the commuter and freight railroad environments to provide constant warning time, which in turn provides more reliable warning times at the highway-rail grade crossing.

The SCRRA Design Criteria Manual (DCM) requires direct current (DC) track circuits with battery eliminators (such as 1TC, 2TC, and 3TC) be used for conventional battery/relay type (non-coded) track circuits. Maximum track circuit lengths vary with ballast resistance, drainage, condition of ties, condition of road crossings, platforms, insulated rods, plates and joints, track wire lengths, relay used, other circuits on the track and external interferences. DC type track circuits are not recommended for circuit lengths over 6,000 feet if the possibility of external interference exists. Center fed battery track circuits should be limited to 12,000 feet in total length.

The maximum recommended offset of the battery from the center of a center-fed track circuit is 800 feet. Center-fed type track circuits will not be used for any type of crossing warning control. (DCM 21.9.10)

Electronic coded track circuits shall be used wherever practical to transmit and receive vital block signal data. Most SCRRA subdivisions utilize Electro Code (EC) 4 or 5 typical freight code rates. Any new systems shall be able to interface with the typical code rates used on SCRRA without the use of relay interface systems. (DCM 21.9.11)

In areas of track where shunting is not reliable, the use of DC track circuits shall be considered. In areas where MUs are proposed to be operated, DC track circuits shall also be used. As DC track circuits only provide track occupancy, aspect information shall be transferred between wayside signal locations utilizing vital wayside optical networking. Additionally, where nearside signaling is utilized, adjacent affected crossings shall utilize vital wayside optical networking. (DCM 21.11)

Constant warning devices analyze the rate of change in impedance of the track as a train approaches the crossing. The rate of change is used to detect motion and predict the time of the train's arrival at the crossing. The units establish a constant warning time based on the characteristics of the crossing. The warning time is then used to calculate a fixed approach length based on the maximum authorized speed over the crossing. The change in impedance indicates an incoming train and determines when the unit needs to start the crossing to provide the required warning time.

The constant warning device systems in use have approach distance limitations. These limitations are based on the operating frequency utilized. Before selecting the operating frequency approach length, ballast conditions, and existing signals on the track must be considered. The longer the required approach distance, the lower the frequency used at the crossing.

Lower frequency CWDs are generally avoided when designing grade crossing warning systems. The lower frequency devices have proven difficult to set up and they do not provide consistent shunting for the lower weight MU vehicles. Metrolink current standard configurations utilize ElectrologIXS to provide EC5 track circuits and track codes at signal locations and for grade crossing predictors (GCP) 4000, GCP5000, and XP4 units for grade crossing CWDs.

## 5.2.2 Arrow Service

On the new Arrow Service, signaling systems were modeled after the North County Transit District's Sprinter Hybrid Rail Service, which has 16 years of proven service. The Sprinter design avoided the use of Electro Code, instead utilizing DC track circuits with block information shared between wayside locations via a copper cable connection. Initially the Sprinter included the lower constant warning device frequencies, but these were changed when in-service testing began, and it was determined that the MU vehicles have a problem being detected by the 86 Hertz (Hz) and 114 Hz CWDs. Crossing activation testing revealed a high incident of short, or no, warning times using these frequencies. These lower frequencies were replaced with higher frequencies which proved to be safe for MU operation.

The major system difference between the Arrow and Sprinter services is the wayside block and downstream adjacent crossing (DAX) information is transmitted by fiber optic cable on the Arrow system versus copper cable on the Sprinter system. To ensure the signal system fiber is installed and identified differently than the communications back haul fiber, the dedicated signal fiber cable used to transmit wayside block and DAX information is identified as "Vital Fiber." SCRRRA engineering standard drawings (ES) 8900 – 8912 provide details for the vital fiber installation, tagging and labeling, pull box layouts and grounding, logical network and routing, connection details, and fiber layout standards. The Arrow system uses DC track circuits for track occupancy and vital fiber optic cable for wayside block information. The Arrow system crossings are all XP4 units and do not utilize 86 Hz or 114 Hz. All DAX functions between locations are provided over the vital fiber network.

## 5.2.3 San Gabriel First Mile

The First Mile refers to a section of the San Gabriel Subdivision extending between CP Vernon and CP Redlands (CP ZEMU). The First Mile system was built prior to the Arrow system and was intended to extend Metrolink service into the San Bernardino Transit Center (located at E Street in San Bernardino). The system was built with conventional standard Metrolink systems, meaning EC and GCP-4000 equipment. It was only after construction began on the Arrow system that running MU vehicles within the First Mile became a necessity. Since MU vehicles cannot run on conventional Metrolink systems, it was necessary to provide mitigations to safeguard MU operation. MU vehicles operate on the First Mile up to CP Vernon. The MUs access the AMF at CP Kendall. MUs come off the Arrow system and stop between CP Vernon and CP Kendall. At CP Kendall, the vehicles exit SCRRRA Main Track 1 and enter the AMF.

A review of the First Mile section revealed that lower constant warning device frequencies had not been used in the design. This is mainly due to the wayside blocks being short, negating the need for long CWD approach circuits, which primarily use 86 Hz and 114 Hz. However, the First Mile does use EC circuits for wayside control. A design was developed, which utilized Phase Shift Overlay (PSO) circuits to enhance vehicle detection. The PSOs were installed on circuits where EC was used (between control points). PSO units are used within the rail industry, primarily on light rail transit systems, due to their high shunting sensitivity. These circuits reliably detect lighter vehicles with limited axles.

The PSO overlay circuits, with a relay input into the existing Vital Logic Controller (VHLC) controllers (or ElectrologIXS controller if VHLC is not present), to interrupt the receipt of Code 1. This allows the system to detect a vehicle if the EC is shunted, or if the PSO circuit is shunted. This eliminated possible EC circuit detection failures without interrupting the existing function of the EC operation.

## 5.2.4 Potential Modifications

The San Gabriel and Antelope Valley Subdivisions utilize SCRRRA standard crossing equipment (GCP and XP4) units. To enhance MU vehicle shunting on these subdivisions, modifications to the existing crossing equipment have been identified. Potential modifications to enhance MU vehicle shunting on the San Gabriel and Antelope Valley Subdivisions include changing low frequency crossing warning devices to higher frequencies, adding PSO circuits to EC track circuits, or changing the existing CWDs to XP4 units.

### Changing Low Frequency Units

The existing signal systems on the San Gabriel and Antelope Valley Subdivisions were reviewed and the crossing warning devices utilizing 86 Hz and 114 Hz frequencies were identified. Once the locations utilizing 86 Hz and 114 Hz frequencies were identified, preliminary engineering was performed to determine the extent of the needed changes. Five (5) percent concept plans were developed, changes were reviewed and estimated.

#### *San Gabriel Subdivision*

A total of sixteen (16) segments (55 locations) requiring frequency modification have been identified. The changes required include modifying existing constant warning device frequencies from 86 Hz and 114 Hz to frequencies that are MU compatible, changing narrow band shunts to match the new frequencies, and replacing track filters. These changes are required not only at the location where the frequency is changed, but also adjacent locations that interface with the crossing. Each location summary and cost estimate includes the changes needed, including those at adjacent sites.

The replacement work has been estimated to cost \$2,378,325 for the San Gabriel Subdivision.

See Appendix C-1 for the location summary, cost estimate, and conceptual plans.

#### *Valley Subdivision*

The Valley Subdivision is broken into two (2) parts. The first part is LAUS to Santa Clarita (CP Lang), with the second part being CP Lang to Lancaster. The LAUS to CP Lang portion includes a total of fourteen (14) segments (44 locations) requiring frequency modification have been identified. The second part (CP Lang to Lancaster) includes five (5) segments (18 locations) that require frequency modifications. The changes required include modifying existing constant warning device frequencies from 86 Hz and 114 Hz to frequencies that are MU compatible, changing narrow band shunts to match the new frequencies, and replacing track filters. These changes are required not only at the location where the frequency is changed, but also adjacent locations that interface with the crossing. Each location summary and cost estimate include changes needed, including those at adjacent sites.

The replacement work has been estimated to cost \$5,205,751 for the entire Valley Subdivision. LAUS to CP Lang estimate is \$4,375,484 and CP Lang to Lancaster estimate is \$830,266.

See Appendix C-2 for the location summary, cost estimate, and conceptual plans.

### Install Phase Shift Overlay Circuits

An examination of all existing frequencies was performed to determine the proper PSO frequency application and placement of PSO equipment on the coded track circuits. Preliminary engineering was performed to determine the extent of changes needed. Five (5) percent concept plans were developed,

changes were reviewed and estimated. The evaluation of PSO frequencies was determined using the final adjusted CWD frequency configurations.

Each signal block was analyzed for length and existing frequencies. Using this information, the frequency of PSO which should be applied was determined. The PSO units have a finite distance available based on frequency. The preferred method of design is to have a transmitter at one signal location and a receiver at the next signal location. However, because PSO frequencies have a maximum length, sometimes the blocks were longer than what available frequencies could reach. When this situation was found, a center fed transmitter was used, which doubles the PSO range of length. As center fed transmitters must be in the relative middle of the block, when they landed at an existing location that location was utilized, however, sometimes they required new enclosures and power drops to be added.

The PSO receiver units at signal locations will be where the design drives a relay off the PSO relay output and uses that relay to drive a vital input into whatever signal control device is being used. This input, when false, will cause the signal control device (VHLC, IXS, EC5) to stop transmitting Code 1, causing a track light in the block. The introduction of a PSO receiver will require a program change to the existing control equipment (IXS, VHLC, EC5) to account for the interruption of Code 1. This will require a positive train control map file change and revalidation for each program change. At crossing locations where PSOs are being added, a program change will be required to accommodate the PSO installation, but no positive train control map file change is required. Construction phasing will be crucial to minimize these impacts.

#### *San Gabriel Subdivision*

The PSO installation evaluation determined ninety-seven (97) track circuits require overlay track circuits. See the concept plans and cost summary, included as Appendix C-3, for details of the work required at each location.

The replacement work has been estimated at \$7,794,862.

#### *Valley Subdivision*

The Valley Subdivision evaluation is once again broken into two (2) segments, LAUS to CP Humphreys and CP Humphreys to Lancaster. CP Humphreys was used as the breaking point due to how the segments were identified. The total estimated cost for the Valley Subdivision is \$20,540,967. The first segment (LAUS to CP Humphreys) was determined to have seventy-six (76) track circuits that would require overlay track circuits. See the concept plans and cost summary, included as Appendix C-4, for details of the work required at each location.

The addition of PSO's to the LAUS to CP Humphreys segment is estimated to cost \$12,452,135 covering twelve (12) sections, covering seventy-six (76) track circuits in this area. The addition of PSOs from CP Humphreys to Lancaster is estimated at \$8,088,832 for the eight (8) sections, forty (40) track circuits in this area.

#### *Replace Legacy CWD*

Replacing existing GCP-3000, GCP-4000, and HXP crossing predictors with the KB Signaling Crossing Predictor, XP4, is a recommended modification to allow the use of MU vehicles on the San Gabriel and Valley Subdivisions. XP4 has been utilized on the Arrow system and has a proven record in a MU environment. The XP4 units require custom application programs for the units. The need for custom programs increases the cost of implementing XP4s throughout the subdivisions.



To provide a cost estimate for replacing legacy CWD units, all existing CWDs were examined, and replacement costs were estimated. New GCP-5000 locations, or XP4 locations, were not included in the estimate. A list of crossings with associated equipment installed and recommended replacement configuration was developed. All CWD units were evaluated, including remote units at DAX locations not located at crossings.

### *San Gabriel Subdivision*

Seventy-six (76) locations with CWDs were identified as requiring replacement to become current with the SCRRA standards.

The replacement work has been estimated at \$10,899,036. The list of crossings and the cost estimates are included as Appendix C-5.

### *Valley Subdivision*

In the portion of the Valley Subdivision from LA Union Station to Santa Clarita Station, forty-three (43) locations with CWDs were identified as requiring replacement to become current with the SCRRA standards.

The replacement work for this section has been estimated at \$9,007,043.

The portion of the Valley Subdivision north of Santa Clarita to Lancaster includes fifteen (15) locations with CWDs that should be replaced and have been estimated at \$2,728,883.

The list of crossings and the cost estimates are included as Appendix C-6.

### *Add Vital Fiber to Eliminate Coded Track*

To eliminate coded track, a review of the subdivisions was performed, and costs determined based on the Arrow system. This requires the introduction of vital fiber throughout the San Gabriel and Antelope Valley corridors. "Vital fiber" is dedicated fiber cable, run in a hardened duct bank, used solely for vital systems operations. Vital fiber details are provided in SCRRA ES 8900-8912.

An estimate to introduce vital fiber was developed. The changes include installing vital fiber according to the standard drawings and installing the needed changes at each wayside location to accept the vital fiber.

The estimate was performed on an average per mile cost basis.

### *San Gabriel Subdivision*

57.7 miles were used to develop the estimate. Eighty-nine (89) crossings are estimated by width and include material, labor, and equipment needed to install the fiber through crossings. Thirty-seven (37) bridges are estimated by width and include material, labor, and equipment to install fiber on bridges. The estimate includes fly-overs and the I-10 corridor. The remainder of the subdivision (43.4 miles) is estimated by determining the material, labor, and equipment required per mile of installation and then multiplied by 43.1 miles. No estimates for laterals are included.

The installation work has been estimated at \$138,064,344 which breaks down to an average cost of \$2,392,796 per mile. The summary sheet of the estimate can be found in Appendix C-7.

### *Valley Subdivision*

A total mileage of 73 miles (385,440 feet) was used to develop the estimate. Fifty-seven (57) crossings are estimated by width and include material, labor, and equipment needed to install the fiber through crossings. Forty-four (44) bridges are estimated by width and include material, labor, and equipment to install fiber on bridges. The remainder of the subdivision (69.73 miles) is estimated by determining the material, labor, and equipment required per mile of installation and then multiplied by 69.73 miles. No estimates for laterals are included.

The installation of vital fiber has been estimated at \$58,970,210 for LAUS to Santa Clarita. The installation of vital fiber from Santa Clarita to the end of the subdivision is estimated at \$73,349,717. The summary sheet of the estimate can be found in Appendix C-8.

### *Shorten Existing Electro Code Circuits*

WSP performed the San Bernardino Line DMU Shunting Study, dated February 19, 2019, which studied the impact of DMU vehicles on the mainline of the Metrolink San Bernardino line west of San Bernardino. The WSP Study produced recommendations of utilizing on board shunt enhancement, adding wheel brushes on DMUs, breaking long track circuits into shorter segments, and eliminating all 86 Hz and 114 Hz crossing warning devices and equipment. The WSP report determined that due to the existing signal spacing and the existing locations of repeaters, shortening the circuits is not feasible. Furthermore, it is SCRRA's policy to install PSO overlay circuits on all EC circuits where MU vehicles are utilized, regardless of circuit length. This practice is highlighted on the First Mile section of the San Gabriel Subdivision where the EC circuits are much shorter than WSP's guidelines and PSO overlays were installed.

### *Quarter Second Logs from CWD Units*

Crossing ¼ second logs of train events were downloaded from the CWD units and analyzed for erratic shunting. The downloads ¼ second logs RX or EZ values for the train move were then graphed. The EZ (or RX) levels should decrease linearly as the train approaches the street. Any change or spike in value of 3 points or more was considered a shunting issue. XP4 units allow ¼ second logs to be downloaded. HXP and GCP-5000 units allow data to be downloaded with RX/EZ levels being recorded every 1 – 2 seconds. GCP-3000 and GCP-4000 equipment do not have this ability. Where GCP-3000 or GCP-4000 units are installed, a video recording of the screen showing the EZ for inbound trains was made. The videos of the EZ levels were reviewed to determine if erratic shunting is present. Jagged EZ levels for the inbound train move indicate erratic shunting and point to contaminated rail. The majority of the spikes in the EZ levels occur when the vehicle is in the actual crossing.

SCRRA's current brush program is performed by their signal maintenance contractor. The brush program uses a hi-rail truck equipped with wire brushes that are operated by an onboard generator. The truck makes passes over the track and brushes the top of the railhead. This is intended to remove rail contaminant build up that can impede wheel to rail contact and interfere with proper track circuit shunting. The program focuses on the San Gabriel Subdivision primarily, with some operations taking place on other subdivisions as needed. The locations identified below as having non-linear shunting data should be added to the brush program focus locations. This effort is not accounted for in the maintenance cost comparison in Section 3.

### *San Gabriel Subdivision*

The San Gabriel crossing data was recorded and downloaded for evaluation. A chart identifying the crossings, CWD type, whether the island circuit value drop is linear or not, and comments regarding the crossing is provided in Appendix C-9. Seven (7) locations were determined to be non-linear. The quarter second log data was used to create graphs of the RX/EZ values. These charts are also included in Appendix C-9.

### *Valley Subdivision*

The Valley crossing data was recorded and downloaded for evaluation. A chart identifying the crossings, CWD type, whether the island circuit value drop is linear or not, and comments regarding the crossing is provided in Appendix C-10. Nine (9) locations were determined to be non-linear. The quarter second log data was used to create graphs of the RX/EZ values. These charts are also included in Appendix C-10.

### *Track Circuits*

During the field visits to download the ¼ second logs, track relay voltages, 7K Receive current measurements and EC5/IXS Receive current measurements were taken and documented. Using the manufacturer's specifications, the circuits were evaluated and circuits that are out of range but acceptable and circuits that are out of range and require adjustment were determined. Relay and EC specification info was gathered from the manufacturer's specifications and the SCRRA maintenance manual. Working current was converted from Amps to Volts DC. The industry standard is to set relays to 150% the working current. A threshold of +/- 5% was used to show locations near the spec, and locations beyond +/- 5%. The same threshold was established for EC4/VHLC/EL1A to EC4/VHLC/EL1A current. Locations with EC5/ElectrologIXS vary by track circuit length, therefore a 5% threshold was not used. EC5/ElectrologIXS location were labeled based on meeting the Manufacturer's recommended specifications. This also affects EC5/ElectrologIXS to EC4/VHLC/EL1A locations. See the tables in Appendices C-11 and C-12 for breakdowns of each type.

### *San Gabriel Subdivision*

The track circuit data measured on the San Gabriel Subdivision shows about 50 track circuits are outside the 5% threshold established and should be adjusted. The cost to complete these adjustments is estimated to be \$139,958.

See Appendix C-11 for track circuit readings.

### *Valley Subdivision*

The track circuit data measured on the Valley Subdivision shows many track circuits are outside the 5% threshold established and should be adjusted. The cost to complete these adjustments between LAUS and Santa Clarita is estimated to be \$97,068. The cost to complete these adjustments from Santa Clarita to the end of the subdivision is \$45,148.

See Appendix C-12 for track circuit readings.

### *Additional LOS Times*

Additional LOS time to the detector sections was considered but is not recommended. The overall direction for Metrolink (as was done at Terminal and Mission) is to reduce LOS times for detector

sections from the standard 10 seconds to 5 seconds. This is done to speed up detector locking release behind trains. Increasing the LOS times inherently slows the entire system down. Additionally, increasing detector LOS times can cause unintended problems for traffic reversals within blocks. This was experienced at CP Amar where an eastbound train got beyond the advance EC circuit before the detector section at CP Amar recovered. Additionally, the computer-aided dispatch system adds 10 seconds beyond the standard field 10 LOS. There have been no indications of poor shunting related to DC track circuits (non-Electro Code) on Metrolink.

For EC circuits, LOS is added to Holding Signals on their EC circuits. This is due to the lack of a detector section. However, this is not normally done for EC circuits. EC is inherently slow on its natural pickup, usually taking a minimum of 4.7 seconds to pick up and even longer depending on where the train exits the circuit in the pulse cycle. Increasing LOS times for EC will only slow the system down as a whole.

### 5.2.5 Onboard Shunt Enhancement

The National Loss of Shunt Committee (Committee), led by the Canadian National Railway and Amtrak has been studying the causes of LOS issues for passenger trains. They determined the root causes to be equipment with consistently “trued” wheel profiles, few axles compared to freight trains (24 axles and under), lighter equipment weight (under 400 trailing tons), and head-hardened rail. They considered several solutions but determined the most practical method to address the LOS issues, based on reliability and maintenance, is an OSE System designed to improve the wheel-rail interface. The OSE system involves mounting antennas under the trucks of the lead unit to induce a wetting current into the track circuit. The committee has thoroughly tested the system for the last three years and recommends moving forward with its adoption.

The recommended OSE is a solid-state device with no mechanical connections to the rail. A 165 kHz signal is generated through an antenna that sits underneath each of the lead unit trucks to induce a wetting current into the rail, which assists the track circuit current in bridging the wheel/rail interface. This technology has been used in the United Kingdom and has proven to be a successful method of mitigating LOS issues on MU trains for several decades and is currently being tested in the United States.

Recommendations from the Loss of Shunt Committee apply to light weight consists (under 400 trailing tons), minimal axle count (under 32 axles), passenger, and commuter train movements. Antenna assembly of proper shape for the truck type will be installed on both the leading and trailing trucks of the leading vehicle. Both antennas will be designed to function as a complete system. Failure of one is considered a failure of the system. Primary inductors mounted parallel with the rail shall be mounted so that both sides are centered over both rails when vehicle is static over tangent level track. The fundamental operating frequency will be 165 kHz with a tolerance of +/- 10 kHz. The induced current into the rail will be at 3.5A +/- 0.5A and shall not exceed 4.0A. A health/monitoring (fault) indication with a visual component should be displayed to the locomotive engineer. An audio component is recommended to be used with the visual indication. The monitoring circuit will continually check that the correct signal level is present at the tuning unit. Should this circuit detect a significant reduction in signal level, or an opening of the antenna loop, a fault indication will be sent to the locomotive engineer. Where practical, this health information should be input to onboard event recorders. Each host railroad will determine if a minimum axle count is required in addition to the OSE equipped vehicle. The Committee recommends the “minimum” axle count be no less than 16. OSE should be active only on the leading vehicle. Passenger /commuter carriers should inspect the general operation,

health/monitoring indications, and stationary rail current of the OSE system every 184 days (6 months) and keep records of the inspections.

To implement the OSE solution, the FRA will need to approve a waiver for Code of Federal Regulation (CFR) Part 229.71, which addresses top of rail clearance, as the antenna sits inside the 2 ½" envelope called for in the regulation, if the antenna is within the 2 ½" above the top of rail (ATR). No waiver is required if the antenna is more than 2 ½" above the rail.

To utilize the OSE on the Stadler and FLIRT vehicles and on SCRRA property, the antenna and attachment to the vehicle needs to be designed (antenna and attachment is vehicle dependent) for both vehicles, SCRRA will need to ask to join the existing FRA waiver or apply for a separate waiver (depending on antenna positioning), OSE equipment will need to be validated on the vehicle and in the field, and standard operating procedures for OSE failures will need to be developed. The costs for developing the installation requirements for the OSE have not been included in this study. The rough order of magnitude cost to equip each MU with OSE equipment is \$360,000 per trainset.

## 5.2.6 Recommendations

It is recommended SCRRA move forward with the pilot program for the MUs with the OSE installed and active. Table 5-4 shows the cost to address shunting concerns using OSE. If shunting problems are discovered, the other signal modifications identified in this report should be added to the field.

**Table 5-4. Capital Cost for Onboard Shunt Enhancement Equipment**

| Onboard Shunt Enhancement   | SBL         | AVL, LA-SC  | AVL, SC-Lan | Total       |
|-----------------------------|-------------|-------------|-------------|-------------|
| SBCTA FLIRT Service Plan    | \$720,000   | \$1,800,000 | N/A         | \$2,520,000 |
| Caltrans FLIRT Service Plan | \$2,520,000 | \$1,800,000 | \$1,800,000 | \$6,120,000 |

Table 5-5 summarizes the cost of the signal system improvements by line recommended to be implemented to enable safe MU operation based on existing proven technology to enhance MU shunting if OSE proves not to be viable.

**Table 5-5. Summary of Recommended Signaling Upgrade Costs**

| Signal Improvement                      | SBL                 | AVL, LA-SC          | AVL, SC-Lan         | Total               |
|-----------------------------------------|---------------------|---------------------|---------------------|---------------------|
| CWD Frequency Change                    | \$2,378,325         | \$4,375,484         | \$830,266           | \$7,584,075         |
| PSO Overlay Circuits                    | \$7,794,862         | \$12,452,135        | \$8,088,832         | \$28,335,829        |
| CWD Change Out                          | \$10,899,036        | \$9,007,043         | \$2,728,883         | \$22,634,962        |
| Track Circuit Adjustments               | \$139,958           | \$97,068            | \$45,148            | \$282,174           |
| <b>Construction Subtotal</b>            | <b>\$21,212,181</b> | <b>\$25,931,730</b> | <b>\$11,693,129</b> | <b>\$58,837,040</b> |
| Construction Contingency (15%)          | \$3,181,827         | \$3,889,760         | \$1,753,969         | \$8,825,556         |
| Design (6%)                             | \$1,272,731         | \$1,555,904         | \$701,588           | \$3,530,222         |
| Design Support During Construction (2%) | \$424,244           | \$518,635           | \$233,863           | \$1,176,741         |
| Construction Management (5%)            | \$1,060,609         | \$1,296,587         | \$584,656           | \$2,941,852         |
| Flagging (6%)                           | \$1,272,731         | \$1,555,904         | \$701,588           | \$3,530,222         |
| Agency Costs (10%)                      | \$2,121,218         | \$2,593,173         | \$1,169,313         | \$5,883,704         |
| <b>Total</b>                            | <b>\$30,545,541</b> | <b>\$37,341,691</b> | <b>\$16,838,106</b> | <b>\$84,725,338</b> |

Table 5-6 summarizes costs for complete standardization with the Arrow system. The installation of Vital fiber would standardize the signal system infrastructure for all areas operating MU vehicles within

the Metrolink network. While it would be the ideal solution, it is not specifically required for the operation of MU vehicles.

**Table 5-6. Cost for Full Signaling Standardization with Arrow Service**

| Signal Improvement                      | SBL                  | AVL, LA-SC           | AVL, SC-Lan          | Total                |
|-----------------------------------------|----------------------|----------------------|----------------------|----------------------|
| CWD Frequency Change                    | \$2,378,325          | \$4,375,484          | \$830,266            | \$7,584,075          |
| CWD Change Out                          | \$10,899,036         | \$9,007,043          | \$2,728,883          | \$22,634,962         |
| Vital Fiber Construction                | \$138,064,344        | \$58,970,210         | \$73,347,717         | \$270,382,271        |
| <i>Construction Subtotal</i>            | <i>\$151,341,705</i> | <i>\$72,352,737</i>  | <i>\$76,906,866</i>  | <i>\$300,601,308</i> |
| Construction Contingency (15%)          | \$22,701,256         | \$10,852,911         | \$11,536,030         | \$45,090,196         |
| Design (6%)                             | \$9,080,502          | \$4,341,164          | \$4,614,412          | \$18,036,078         |
| Design Support During Construction (2%) | \$3,026,834          | \$1,447,055          | \$1,538,137          | \$6,012,026          |
| Construction Management (5%)            | \$7,567,085          | \$3,617,637          | \$3,845,343          | \$15,030,065         |
| Flagging (6%)                           | \$9,080,502          | \$4,341,164          | \$4,614,412          | \$18,036,078         |
| Agency Costs (10%)                      | \$15,134,171         | \$7,235,274          | \$7,690,687          | \$30,060,131         |
| <b>Total</b>                            | <b>\$217,932,055</b> | <b>\$104,187,941</b> | <b>\$110,745,887</b> | <b>\$432,865,884</b> |

## 5.3 Vehicle Platform Interface

The introduction of MU trains on existing lines comes with a challenge of providing access to the train for all passengers, because the cars have a different configuration than the legacy trains that currently operate. One challenge relates to vertical platform interface, or the height at which the vehicle floor is relative to the platform. Coupling MU vehicles to create long trainsets also created a horizontal challenge where platforms are too short to accommodate the opening of all doors.

### 5.3.1 Vertical Platform Interface

According to federal regulations, any station platform that is built new or altered in any way requires all individuals with disabilities, including those who use wheelchairs, to have access to all train cars available to passengers without disabilities on each train that uses the station. Level-entry boarding is the preferred boarding method; however, other accessible means of boarding are acceptable since the existing Metrolink corridors are shared with freight operations. This section will explore options to provide accessible boarding using both the legacy Metrolink fleet and the MU trains on the existing platforms.

#### Existing Conditions

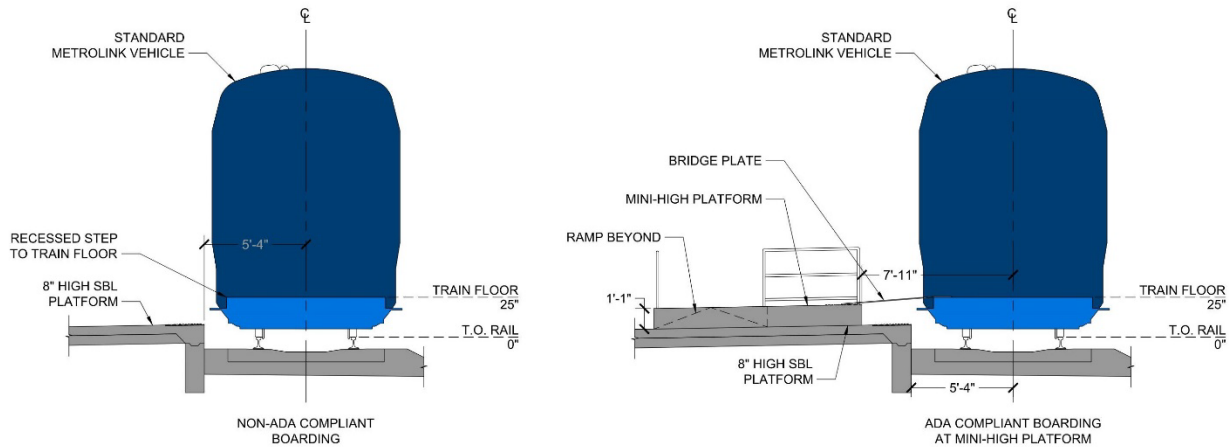
The physical limitations of both the existing platforms and the trains that run on them are key to understanding the challenge of providing ADA compliant level boarding using the existing fleet and the MU trains at existing platforms.

The existing platforms on the SBL and AVL are 8" above the top of rail, set back 5'-4" from the centerline of the track, and serve Bombardier Bi-Level trains as well as the Hyundai Rotem Bi-Level trains (standard Metrolink trains). This configuration requires that passengers go up two (2) steps to enter the train. The first step is approximately 10" above the platform and the second step is an additional 7" high, recessed inside the train envelope by about 9" (see Figure 5-1). The current ADA



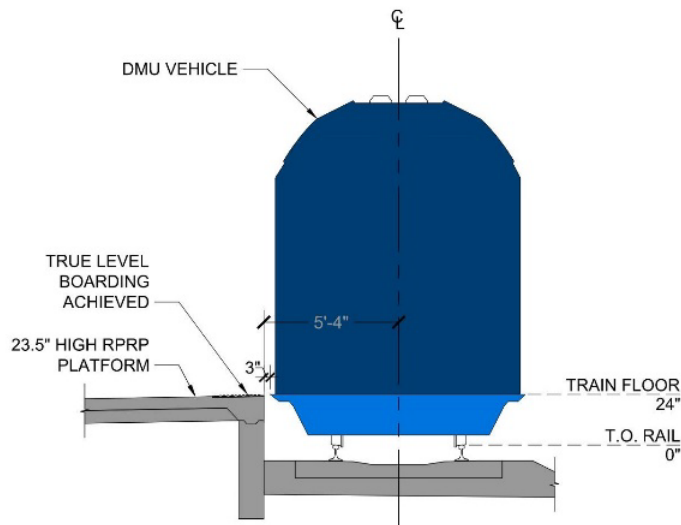
solution at these platforms is a mini-high platform set back 7'-11" from the centerline of the track with a bridge plate placed by the conductor covering the gap between the mini-high platform and the train floor (see Figure 5-1).

**Figure 5-5. Existing Boarding Conditions – San Bernardino and Antelope Valley Line**



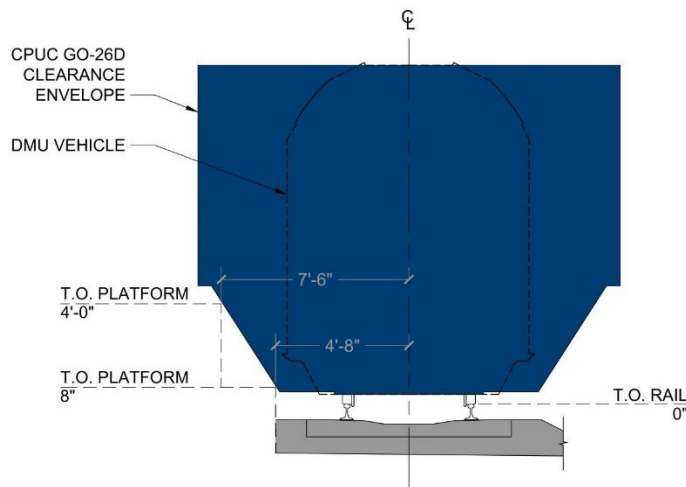
The existing platforms on the Arrow Project, built specifically for the Stadler FLIRT MU, are 23.5" ATR set back 5'-4" from the centerline of the track. This configuration provides true level boarding at these platforms as the train floor is 24" ATR and there is a 3" gap between the train and the platform. All passengers can board without a vertical step along the entire platform (see Figure 5-2).

**Figure 5-6. Existing Boarding Conditions – Arrow System**



An additional constraint in place at these platforms is the requirement to comply with freight train clearance requirements per California Public Utilities Commission (CPUC) General Order No. 26-D. For platforms 8" and lower, all platforms must be a minimum of 4'-8" from the centerline of track. For platforms between 8" and 4'-0" high, there must be 7'-6" clear between the centerline of track and the edge of the platform (See Figure 5-3).

**Figure 5-7. CPUC General Order No. 26-D Setback Requirements**



Analysis of all trains that run along the SBL and AVL has determined that their envelopes fall within the Association of American Railroads Plate C, which is considerably smaller than the CPUC clearance envelope, indicating that it may be feasible to raise platforms within the CPUC clearance envelope if an exemption is granted by CPUC. The general order states “The Commission reserves the right to modify any of the provisions of these regulations in specific cases when, in the Commission's opinion, public safety, convenience or necessity would be served by so doing.” There is precedence for this exemption, and it would alleviate some constraints should it be pursued.

The Caltrans FLIRTs will be equipped with both slide-out steps to provide access to 8" ATR platforms for ambulatory passengers and automatic gap fillers extending 12 to 13 inches from the car body at all doors, which would allow for level boarding in the future if CPUC approves a waiver to modify platforms with only a 6'-4" setback.

### ADA Compliant Boarding

Due to the fact that the SBL and AVL share tracks with freight operations, ADA-compliant boarding that is not level boarding is considered acceptable per the federal regulations (49 CFR section 37.42). Systems that could provide this ADA boarding are explored in the following sections. The most cost-effective solution is to use existing mini-high platforms with bridge plates to access MU vehicles as is the current practice for LHCs on the system.

#### *Recommended Solution: Mini-High Platforms with Bridge Plates*

The existing boarding process at the 8" tall Metrolink platforms uses a mini-high platform near one end of the platform with a bridge plate placed manually by the train conductor. Train crews are required to re-spot the train to a different car if required, providing access to all train cars available to passengers without disabilities. This can be done if a cab car is at capacity with passengers using wheelchairs or if the passenger requests to be in a different car.

This solution can also be utilized by MU trains as the floor height of the train is only 1" lower than the legacy Metrolink trains. The benefit of this solution is that the infrastructure already exists along the SBL and AVL, and the operations for the train crews would not change. The downside is that it still requires the train crew to facilitate boarding for disabled passengers.

Able-bodied passengers would alight the train using the flip-down step that would be specified in the 5-car ZEMU procurements.

### *Flip-Up Platform Edges*

A solution that has been used elsewhere to solve this problem is a retractable (flip-up) platform edge. This solution allows a tall platform (24.5" ATR) to be built, clear of the CPUC clearance, that has an edge that can flip up into position when a passenger train arrives. While this could provide access to the MU trains, this solution is not feasible as the bottom step of the standard Metrolink train would interfere with the swinging motion of the platform edge. Additionally, the recessed step of the Metrolink train would still leave a gap of about 12" between the platform edge and the interior floor of the train car, which makes this solution infeasible.

An additional element to this solution is an extendable plate that could be added to the flip-up platform edge to avoid the train step and bridge the gap between the platform edge and the interior floor of the standard Metrolink train car. In order for this to work, the extendable plate would need to extend into the train itself once the doors are open. This would require very precise door positioning, which is highly impractical with existing rail braking and power control. It would also increase the average time per stop by more than double as the conductor deployed and retracted the ramps, ensuring the platforms fully cleared the train before moving on. Additionally, it would require 10 moving ramps per station (assuming a 5-car train) which would be a major cost implication and maintenance effort to keep them coordinated and functioning properly at all stations.

Historically, the breakaway feature on flip-up platform edges is prone to damage from objects hanging from freight cars that are not high and wide which will cause extra maintenance and operational delays within the system. Additionally, they do not have a very solid feel when customers walk or roll on them which adds a feeling of uncertainty to the passenger journey and could slow boarding and alighting of the train, further increasing stop time.

### *Car Modification*

Another potential solution would be to modify the legacy train cars to interface with a raised platform. With the recessed step being the main barrier to level boarding, the initial instinct would be to modify the cars to provide a level walk-out rather than the steps. Even if this modification was possible across the entire legacy fleet (244 coaches and cab cars), the barrier to level boarding is the CPUC clearance, which would require the tall platform to be set back an additional 2'-2", leaving a large gap between the train and the platform. Additionally, this modification would need to be flexible as the legacy fleet is used along other lines, which still use the 8" high platforms.

A custom mechanized ramp could be developed to be installed at the doors of the train cars to bridge the gap, similar to the flip-up platform edge solution, but it comes with many of the same challenges. The ramps would need to be integrated with the operation of the doors to make sure they fully deploy before the customers alight the train. It would also increase the average time per stop by more than double as the conductor deploys and retracts the ramps along the entire train. Additionally, it would require 4 ramps per train car (up to 24 ramps on a 6-car LHC) which would be a major cost implication and additional maintenance effort.

*A manually operated ramp stowed just inside the car doors would not be feasible because it would be required at all doors along the platform and a single conductor would not be able to manually board/alight all 5 cars at every station. Gauntlet Tracks*

A gauntlet track is an arrangement where two sets of tracks run parallel and overlap so that only one set of tracks is usable at a time. This would be beneficial to provide level boarding because it would allow the freight trains to run on a track farther away from the platform, maintaining the required clearance, while the passenger trains could run on the tracks closer to the platform to achieve the required ADA clearances between the train cars and the platform.

Although this solution provides reprieve from the CPUC clearance, the recessed step inside the legacy Metrolink vehicles remains problematic. There would still be a 12" gap inside the vehicle envelope between the platform and the train floor. It would also require a study at each station location to determine if there is space for a gauntlet track and how it would affect the operations in each location. Gauntlet track requires elaborate train signaling and special trackwork with powered switches at each end of every station platform and additional ROW would need to be acquired at most stations. The cost would be significant. Gauntlet tracks would also complicate future system capacity enhancements.

### True Level Boarding

Due to complex existing conditions on the Metrolink system, a true ADA-compliant level boarding solution for a platform that serves both the standard Metrolink trains and the MU trains is a multi-faceted solution that requires a significant financial investment and modifications to the legacy system's vehicles, infrastructure, and operation. Three potential solutions have been identified. Selection of a level-boarding solution would need to consider implications for the entire Metrolink system and the intercity services operating on the Metrolink network, not only the lines upon which MUs are proposed.

#### *Solution 1: Car-Borne Gap Filler*

This solution is two-fold:

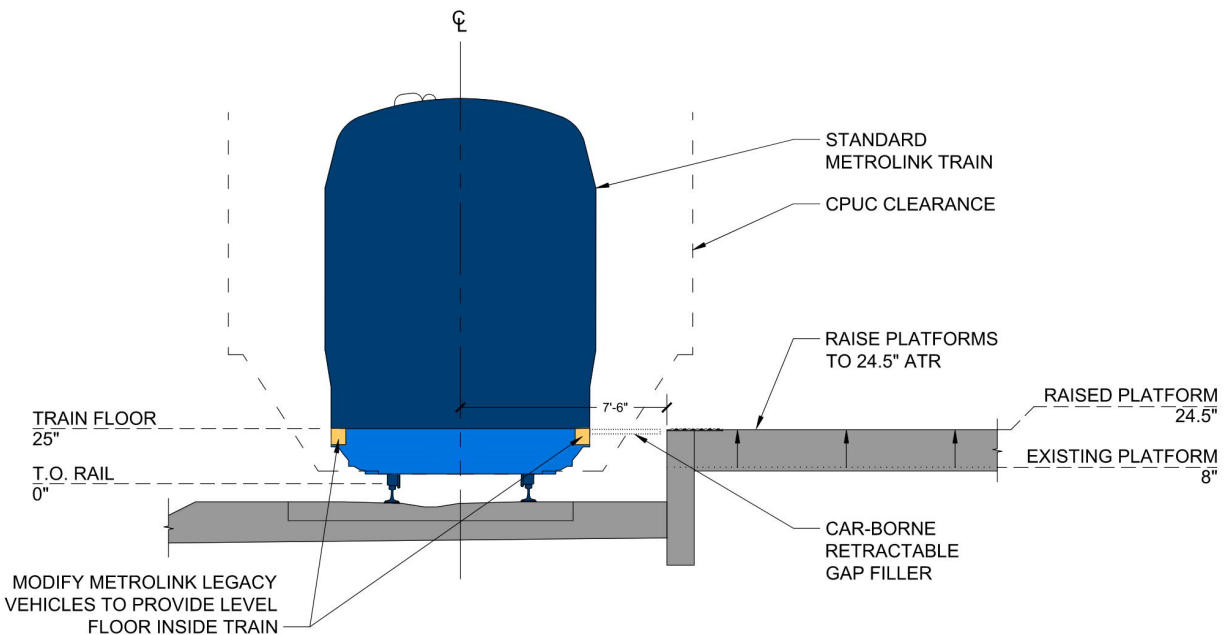
1. Raise all platforms to be 24.5" tall set back 7'-6" from the centerline of track. This would allow both the legacy and MU vehicles to meet the vertical gap requirement between the platform and the train (5/8" maximum). The 7'-6" setback clears the required CPUC envelope and does not require an exemption.
2. Modify the legacy Metrolink fleet to eliminate the recessed step and provide a level floor within the train. Provide a 2'-2" retractable gap filler to provide less than a 3" horizontal gap to the raised platform at all train car doors.

This solution would require the major overhaul of a legacy system across all stations and the legacy vehicle fleet. Additionally, the solution creates an additional maintenance effort with the retractable gap filler on the train cars. However, the scheduled stops at each station would remain the same and possibly improve in some circumstances where a conductor would have been required to manually place a bridge plate or re-spot a train at a mini-high platform.

Additional exploration would be required when modifying the fleet of vehicles, as the modification would only apply to the lines MUs are deployed on and would not be compatible with the other lines in the system. This means the modification either needs to be temporary/stowable (i.e., a plate that can flip up) or a portion of the fleet would be permanently modified to create a separate mini-fleet

devoted solely to the specific lines. This may be feasible for the SBL, which has relatively self-contained operations. The AVL, however, shares equipment with the Ventura County Line, which is planned to be combined with the Orange County Line after completion of Link Union Station. Furthermore, the Burbank – Downtown station and several Orange County Line stations are served by the Amtrak Pacific Surfliner in addition to legacy Metrolink vehicles. The feasibility of a temporary/stowable solution that incorporates a gap filler would need to be researched further if this solution is preferred.

### Figure 5-8. Level-Boarding Solution 1 – Car-Borne Gap Filler

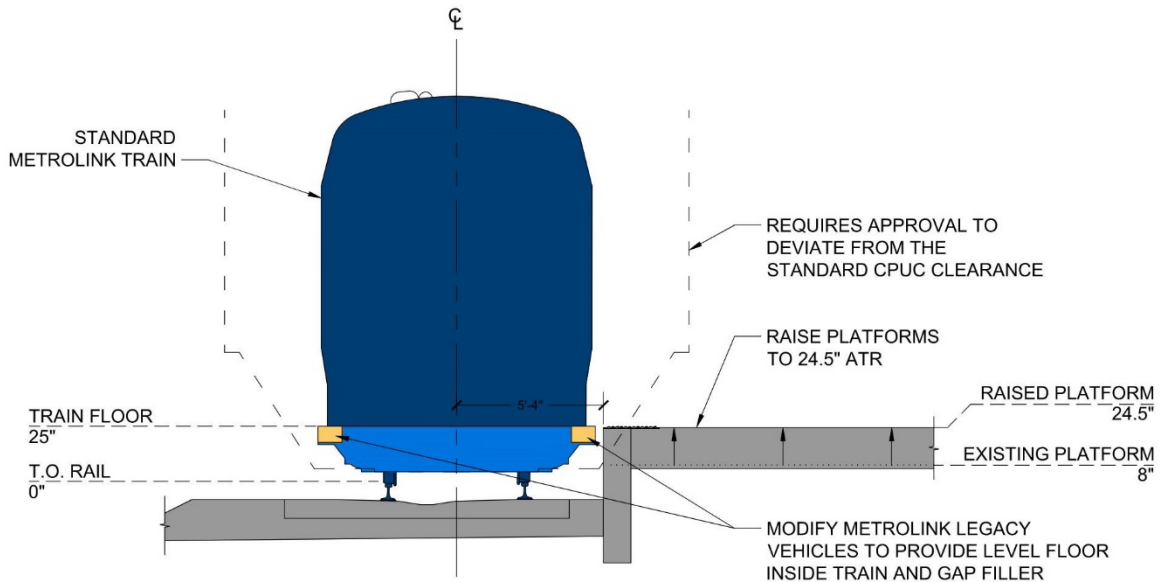


### Solution 2A: CPUC Waiver

The following alternative would also provide level boarding but requires an exemption from the CPUC clearance:

1. Raise all platforms to be 24.5" tall set back 5'-4" from the centerline of track. This would allow both the legacy and MU vehicles to meet the vertical gap requirement between the platform and the train (5/8" maximum). The 5'-4" set back clears the envelope of the freight trains that run on the line and matches the Arrow platform design.
  - a. This platform construction would require approval from the Commission to modify the CPUC clearance.
2. Modify the legacy Metrolink fleet to eliminate the recessed step and provide a gap filler to provide less than a 3" horizontal gap to the raised platform at all train car doors.

**Figure 5-9. Level-Boarding Solution 2 – CPUC Waiver**



This solution would require the major overhaul of a legacy system across all stations and the entire legacy vehicle fleet. However, the solution does not create any additional maintenance efforts within the system and there are no new mechanical components that could fail. The scheduled stops at each station would remain the same and possibly improve in some circumstances where a conductor would have been required to manually place a bridge plate or re-spot a train at a mini-high platform.

Additional exploration would be required when modifying the fleet of vehicles, as the modification would only apply to the lines MUs are deployed on and would not be compatible with the other lines in the system. This means the modification either needs to be temporary/stowable (i.e., a plate that can flip up) or a portion of the fleet would be permanently modified to create a separate mini-fleet devoted solely to specific lines. The feasibility of a temporary/stowable solution that incorporates a gap filler would need to be researched further if this solution is preferred. As noted above, the AVL faces greater operational complexity than the SBL.

#### *Solution 2B: CPUC Waiver with Car-Borne Gap Filler*

This alternative represents a combination of Solutions 1 and 2, using a shorter gap filler and smaller encroachment on CPUC clearances, and the Caltrans FLIRT vehicles in production are designed to facilitate this solution. This alternative consists of the following:

1. Raise all platforms to be 24.5" tall set back 6'-4" from the centerline of track. This would allow both the legacy and MU vehicles to meet the vertical gap requirement between the platform and the train (5/8" maximum). The 6'-4" set back clears the envelope of the freight trains that run on the line and matches the Arrow platform design.
  - a. This platform construction would require approval from the Commission to modify the CPUC clearance.
2. Modify the legacy Metrolink fleet to eliminate the recessed step and provide a gap filler extending 12" to 13" from the car body to provide less than a 3" horizontal gap to the raised platform at all train car doors.



3. Specify that the MU vehicles for use on the system have a gap filler extending 12" to 13" from the car body, like the Caltrans vehicle

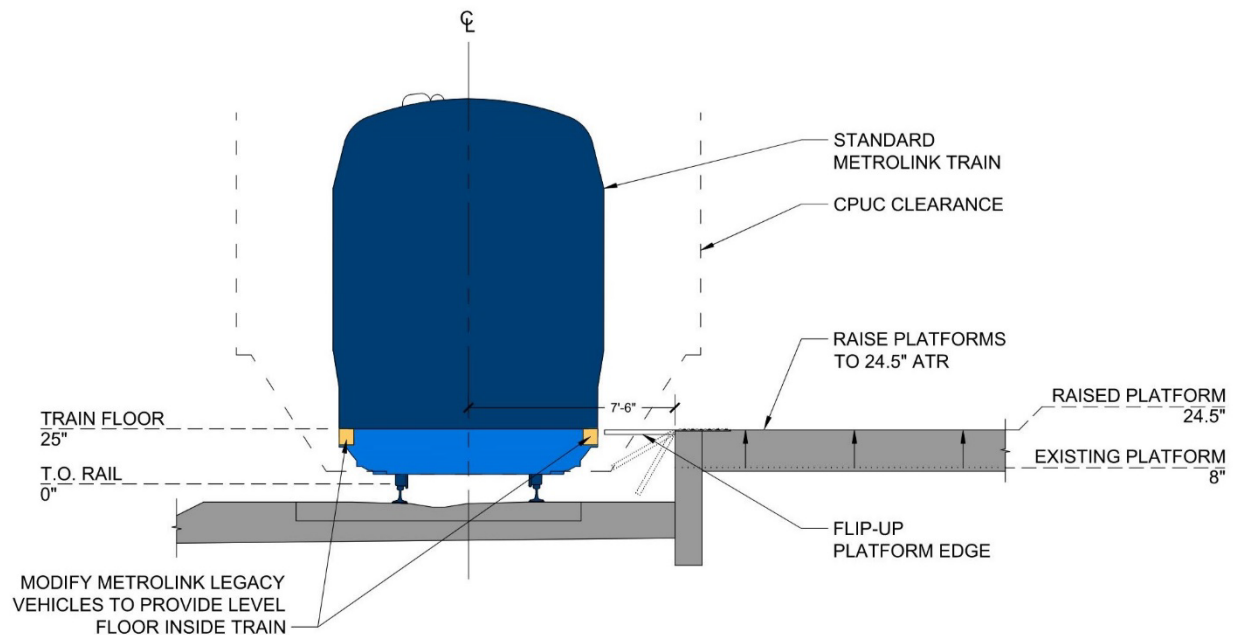
### *Solution 3: Flip-Up Platform Edges*

If the Commission does not approve the deviation from the required CPUC clearance, there is another solution to provide level boarding, but it is not recommended based on past implementation.

The solution is three-fold:

1. Raise all platforms to be 24.5" tall at the required CPUC setback of 7'-6" from the centerline of track. This would allow both the legacy and MU vehicles to meet the vertical gap requirement between the platform and the train (5/8" maximum).
2. Modify the legacy Metrolink fleet to eliminate the recessed step and provide level boarding at all train car doors. This modification would also require elimination of the lower step that protrudes from the train door.
3. Provide flip-up platform edges along each platform. This would bridge the gap between the raised platform and the passenger trains, providing level boarding for all passengers at all doors.

**Figure 5-10. Level-Boarding Solution 3 – Flip-Up Platform Edges**



This solution would also require an overhaul of the legacy system across all stations and the vehicle fleet, but it would eliminate the need to get approval for a deviation from the required CPUC clearance. The fleet modification would be a permanent solution that would make the train cars incompatible with other lines. Therefore, a mini-fleet would have to be created devoted solely to the SBL and AVL.

Flip-up Platform Edges are a solution that are actively employed on other systems; however, their application is unique at each installation, and they introduce additional points of failure to the system. They require a lot of additional testing and maintenance and are not a recommended solution. See below for further challenges facing Flip-Up Platform Edges.

## Implementation

A key takeaway from this study is that the options available to provide level boarding on the SBL are required to be a line-wide implementation. The vehicle modifications do not lend themselves to be able to provide level boarding at some stations and still serve the other stations as originally planned. Implementation could be relatively self-contained on the SBL, but stations on the AVL are shared with the Ventura County Line, Pacific Surfliner, and future combined Ventura County-Orange County Line service. Any plans to provide level boarding must consider systemwide implications and be coordinated with other operators and their long-term fleet plans. The Pacific Surfliner will be subject to the same zero-emissions regulations as Metrolink, which may necessitate a change in passenger vehicles from the coaches they currently operate.

Due to the fact that the SBL and AVL share tracks with freight operations, ADA compliant boarding that is not level boarding is permitted. This means if a new platform were to be built, it could be built similar to the existing condition to avoid modifying the rest of the line to match a new boarding condition. Therefore, implementation of MUs can proceed without providing true level boarding.

While not required for MU implementation, long-term implementation of level boarding would benefit passenger accessibility and may improve operations by simplifying boarding. Caltrans is leading a Platform Train Interface Working Group with intent to develop new standards for platform interface and intends to adhere to those standards for future rolling stock procurements for the Pacific Surfliner.

### 5.3.2 Platform Length Assessment

#### Existing Conditions

The SBL and AVL are two of the oldest routes on Metrolink's system. As a result, many of the station platforms on either line were designed to accommodate shorter 3- and 4-car trains, consistent with Metrolink's original service plan at its inception, but not the longer, more prevalent 5- and 6-car consists being run today.

Additionally, Metrolink's current design standards for stations are based on the configuration and layout of the bi-level, LHC trains that Metrolink operate system-wide. As such, the newer single-level FLIRT MU sets are incompatible with existing station layouts and can consequently incur operational delays such as the need to reposition, or "double-spot", consists in order to provide sufficient ADA access and board and detrain passengers from any part of the train.

#### FLIRT ADA Accessibility

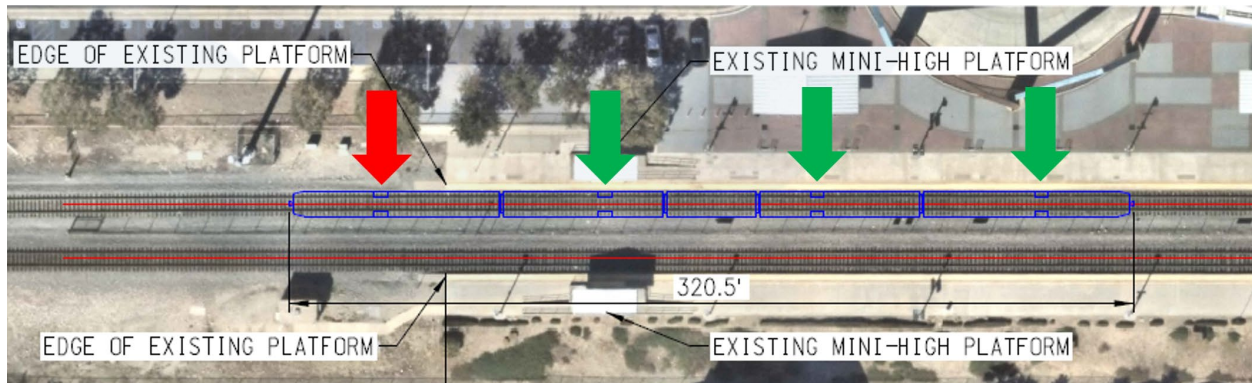
As previously discussed in Section 5.3.2, the existing mini-high ramps in combination with the bridge plates would provide ADA-compliant access to the MU vehicles. However, the placement and location of the existing mini-high platforms, along with the overall interior layout of the MU trainsets being procured, presents challenges that would need to be resolved.

#### *Recommended Pilot Solution: Temporary Mini-High Platforms*

With the exception of the Cal State LA station, all platforms on the SBL and AVL can accommodate a single, 320-foot-long 4-car FLIRT. However, per current SCRRRA design standards, the centerline of the existing mini-high is set 60 feet from the nearest end of platform under the assumption that ADA boarding can be done from any car on the train, with ADA boarding at the frontmost car as standard operation. In comparison, the current layout of the 4-car Caltrans MUs limits ADA-accessible boarding

to the second or third car only, because the interior configuration does not provide space for wheelchairs. Thus, spotting a MU in line with the existing mini-high would place the lead car beyond the edge of the platform, making it entirely inaccessible for passengers to board or detrain, as shown in Figure 5-7 below. The addition of temporary mini-high platforms placed further down the station platform would resolve this issue. Section 7.3.2 provides more detail on the costs required to implement this solution as part of a pilot scenario.

**Figure 5-11. Example MU Spotting at Existing Mini-High Platform**



Two of the stations on the AVL, Glendale and Via Princessa, have mini-high platforms that are centrally located relative to the overall station platform. As both platforms meet the SCRRA standard length requirement (680 feet), the addition of temporary mini-highs is not required at these stations for the pilot solution but would be required in cases where an 8-car MU trainset services these stations.

Regardless of mini-high placement, temporary or permanent, alternative signage would need to be installed at all stations guiding ADA access to the new proposed mini-highs.

#### *Recommended Long-Term Solution: Train Interior Reconfiguration*

For permanent implementation of MUs, reconfiguration of the overall train interior is recommended as a long-term solution rather than adding new mini-high platforms in addition to those at the standard location. Permanent mini-high installation would incur significant capital cost, whereas the interior configuration of the vehicles purchased could be specified at minimal cost before manufacturing begins.

#### **Platform Extensions**

Of the 25 (not including LAUS) current station stops on the SBL and AVL combined, 13 are currently unable to fully accommodate eight-car (2 4-car sets) MU operations without investing in improvements to station infrastructure (i.e. platform extensions). The remaining 12 stations have platforms that are at least 680 feet, the standard length set forth by SCRRA design guidelines and require minimal modifications. One of the 13 stations with below standard platform length, Santa Clarita, is already programmed to have its existing platform extended as part of the Canyon Siding Project.

At stations where the length of the station platform(s) is insufficient for all-door boarding, an analysis was performed that looked at potential platform extension improvements. Three major areas of constraint were considered: existing structures, adjacent grade crossings, and existing track layout. Results found that of the 12 stations with sub-standard platform lengths, eight had the capacity to accommodate platform extension work, while the remaining four were constrained by one or more of the aforementioned factors preventing any sort of expansion.

### Stations with Platform Extension Potential

The eight stations that can be considered for platform improvements are as follows:

- Palmdale (AVL)
- Vincent Grade/Acton (AVL)
- Newhall (AVL)
- Sylmar/San Fernando (AVL)
- Burbank – Downtown (AVL)
- Covina (SBL)
- Claremont (SBL)
- Rancho Cucamonga (SBL)

Table 5-7 provides an overall estimate of the cost to extend platforms at all eight stations. A more detailed breakdown and exhibits identifying improvements that are necessary for platform extensions are included in Appendix D.

**Table 5-7. Estimated Capital Cost for the Platform Extensions**

| Station                                 | Cost                |
|-----------------------------------------|---------------------|
| <b>AVL Stations</b>                     |                     |
| Palmdale                                | \$17,498,800        |
| Vincent Grade/Action                    | \$1,218,365         |
| Newhall                                 | \$3,418,248         |
| Sylmar/San Fernando                     | \$1,554,840         |
| Burbank - Downtown                      | \$1,470,944         |
| <b>Construction Subtotal</b>            | <b>\$25,161,196</b> |
| Construction Contingency (15%)          | \$3,774,179         |
| Environmental (3%)                      | \$754,836           |
| Design (12%)                            | \$3,019,344         |
| Design Support During Construction (5%) | \$1,258,060         |
| Construction Management (8%)            | \$2,012,896         |
| Agency Costs (10%)                      | \$2,516,120         |
| <b>AVL Total</b>                        | <b>\$38,496,630</b> |
| <b>SBL Stations</b>                     |                     |
| Covina                                  | \$2,747,748         |
| Claremont                               | \$404,358           |
| Rancho Cucamonga                        | \$6,274,954         |
| <b>Construction Subtotal</b>            | <b>\$9,427,059</b>  |
| Construction Contingency (15%)          | \$1,414,059         |
| Environmental (3%)                      | \$282,812           |
| Design (12%)                            | \$1,131,247         |
| Design Support During Construction (5%) | \$471,353           |
| Construction Management (8%)            | \$754,165           |
| Agency Costs (10%)                      | \$942,706           |
| <b>SBL Total</b>                        | <b>\$14,423,401</b> |
| <b>Combined Total</b>                   | <b>\$52,920,031</b> |

Overall, it would cost \$52.9 million to enable all-door boarding at these eight stations. However, it should be noted that Palmdale, which has the most expensive modifications, is planned to be relocated as part of the future High Desert Corridor and California High Speed Rail projects. The Claremont station is also planned to be relocated as part of the A Line extension. These projects provide opportunities to bring the platforms up to current standards.

Factors considered in the above cost analysis include platform-related work (concrete, striping, detectable warning tactiles), platform accessories (canopies, signage, light poles, edge fencing), inter-track fencing, extension or relocation of existing utilities, and the addition of new emergency egress routes. Station-specific line items were also considered on a case-by-case basis. They are indicated as follows:

- Burbank - Downtown (AVL): closure of the existing pedestrian crossing, and construction of a new/replacement crossing in accordance with SCRRA design guidelines
- Palmdale (AVL): modification of a riprap-lined drainage channel that currently abuts the edge of the northern end of the station platform
- Palmdale, Newhall (AVL): construction of a new or extended retaining wall along the length of the platform extension limits
- Rancho Cucamonga (SBL): widening of the existing bridge east of the station to accommodate for a portion of the platform extension that will encroach into the bridge limits

Ancillary, non-construction-related costs were also factored in, calculated using SCRRA pre-determined percentages of the total construction costs.

### *Constrained Stations*

There are four stations – Sun Valley on the AVL and Cal State LA, El Monte, and Baldwin Park on the SBL – where it has been determined that the necessary station improvements (platform extensions) to accommodate MU trains cannot be made without significant modifications to the surrounding existing infrastructure. Because of these physical constraints, MU operations would need to adapt to the existing layout of each of the above stations.

Cal State LA Station has the shortest platform on the SBL, at 258 feet. As such, the platform can only accommodate a maximum of three cars at any given time. With no vestibule area to move between MU train sets, passengers wanting to board or alight at this station would be restricted to sitting in one section of the train, potentially leading to overcrowding within certain cars, as further discussed below. Constraints at the station include existing structures such as express lane bus platforms, pedestrian crossing, adjacent I-10 freeway, and El Monte busway overhead.

El Monte Station consists of an island platform with a length of 588 feet. The last car of the eight-car set would not be directly accessible to the platform as a result. In fact, if the first car is aligned with the existing mini-high platform, the opposite end of the train would be within the limit of the at-grade crossing directly East of the station. Both the grade crossing as well as the control point immediately west of the station physically consign the platform to its current length (see Figure 5-8).

**Figure 5-12. El Monte Station Layout**



Baldwin Park Station has a single 510-foot platform, which would leave the last two MU cars inaccessible. Like El Monte Station, the end of the train would be spotted within the limits of the existing grade crossing east of the station, though there are currently plans to replace the existing grade



crossing with a grade-separated undercrossing. The platform is also constrained by a significant cultural archway to the east and a pedestrian overhead structure to the west of the station.

Lastly, the Sun Valley Station on the AVL has a platform that is 600 feet long with existing signal houses located on either end of the platform that limit options to extend the platform without signal and wiring rework. However, it should be noted that this station is proposed to be relocated as part of the California High-Speed Rail project, providing an opportunity to bring platform lengths in conformance with current standards.

As previously noted, any station platform that is less than the standard 680 feet would not be able to accommodate an entire 8-car FLIRT consist at once. Unlike the current LHC trains, which have vestibules at both ends of each non-cab car allowing passengers to move between cars at any time, each 4-car FLIRT has a cab compartment at either end of the trainset that prevents passengers from moving between trainsets that are coupled to form 8-car consists. In order for passengers to board or detrain at all doors of an 8-car MU at the constrained stations, the train would need to double-spot. However, doing so would result in additional dwell time at these locations and consequently lead to MU-operated services falling behind their proposed clockface schedules, or modified versions thereof. To preserve schedule adherence, recommended operations would be to spot the train with the first door aligned with the mini-high, consistent with ADA-access at other stations, and advise passengers using these stations to sit in pre-designated sections of the train or move between cars after boarding or before alighting, as is current practice with LHCs serving Cal State LA. This could potentially result in overcrowding in certain cars due to passengers', especially those with disabilities, ability to easily move between train cars.

At El Monte, Baldwin Park, and Sun Valley, at least two doors of the second half of the train would be able to open, and passengers would be able to move between the last four cars while the train is moving. At Cal State LA, however, spotting the train with the first car aligned with the mini-high would not allow any doors on the second half of the train to open. Trains could be spotted such that at least one door is open on each half of the train at this station, but this would not allow ADA boarding at the first car, which is the recommended standard operating practice. If ADA boarding were conducted from a different car at this station, trains would have to double spot at the passenger's alighting station, or additional mini-highs would need to be added to all other stations on the line.

## 6 Tunnel Safety Considerations

Tunnel 25 on the Metrolink Antelope Valley Line from Mileposts (MPs) 26.65 to 27.95 is approximately 7000 feet and is a crucial link between the Sylmar/San Fernando and Newhall stations. No walkway or ventilation system currently exists within the tunnel, so the tunnel "self-purge" exhaust by air movement. A safety analysis was performed to evaluate the potential consequences of a hydrogen-powered train becoming disabled inside Tunnel 25 and experiencing a high-pressure hydrogen release from its onboard storage tanks. The assessment focused on a catastrophic worst-case scenario in which the safety valves are activated while a fully fueled train is immobile within the tunnel, resulting in a continuous release of hydrogen from the storage system. The analysis specifically examined how rapidly hydrogen could accumulate within the confined tunnel environment and what would be required to maintain concentrations below hazardous or flammable thresholds.

The results show that even a relatively small leak from a damaged tank can release a large amount of hydrogen very quickly, and the confined space of the tunnel presents rapid dissipation into the air.



Within just 30 seconds, the amount of hydrogen in the tunnel could reach about 1,000 cubic meters, which is enough to create a combustible environment if not diluted rapidly.

To make the tunnel safe during such a leak, extremely high airflow would be needed—far more than typical tunnel ventilation systems can provide. In the first 30 seconds alone, the tunnel would need over 1.7 million cubic feet per minute of airflow to keep hydrogen below its flammable limit. When considering all the hydrogen stored onboard the train, the total airflow required to fully manage a worst-case leak could exceed 12 million cubic feet per minute, which is not practical given the tunnel's remote location, power requirements, and the need for large, continuously operating fans.

Because relying on ventilation alone is not realistic, the analysis concludes that the most important safety strategy is preventing hydrogen from leaking in the first place. This means focusing on protecting the hydrogen tanks, ensuring they are well-secured, and reducing the chance that they could be damaged in an accident inside the tunnel due to derailment or collision with another train. The Stadler FLIRT H2 ZEMU currently complies with FRA 49 CFR Part 238 Appendix G for crashworthiness, but operation within Tunnel 25 requires a broader safety case.

Under FRA Part 270 (System Safety Program) requirements, SCRRRA must develop and maintain a comprehensive, risk-based safety program. Before the FRA authorizes ZEMU operations through Tunnel 25, SCRRRA would be required to submit documentation identifying all relevant hazards, evaluating associated risks, and demonstrating the mitigation strategies implemented to eliminate or reduce those risks to an acceptable level. This includes both engineering controls and operational or procedural mitigations tailored to tunnel operations.

## 7 Implementation Roadmap

### 7.1 Funding Requirements and Sources

The total cost to acquire MU vehicles and implement required infrastructure to support their operations is significant. There are a variety of funding sources at the state and federal levels to fund transportation improvements, each with different eligibility requirements, selection criteria, maximum awards, and local matching requirements. Potential federal and state sources are described in the following sections. State sources are generally more promising than federal sources due to fewer restrictions on eligibility, lower matching requirements, and more favorable outlook towards zero-emissions technology.

The most likely path to funding MU implementation will require significant local funding contribution combined with state funding. Metrolink and its member agencies must also consider other agency funding priorities in developing a funding plan for MU implementation. Furthermore, the operational cost comparison indicates that the mixed fleet service plan may require up to \$37 million in additional annual subsidy from Metro and SBCTA on an ongoing basis.

#### 7.1.1 Capital Cost Summary

Table 7-1 and Table 7-2 summarize the total costs for implementation of the mixed fleet service plans using 5-car SBCTA vehicles or 4/8-car Caltrans vehicles, respectively. The Caltrans vehicle service plan uses more and longer MUs, resulting in higher fleet costs and additional maintenance facility costs to store the larger fleet.

**Table 7-1. Capital Cost Summary, SBCTA FLIRT Service Plan (2026 dollars)**

| Capital Element               | AVL                  | SBL                  | Total                |
|-------------------------------|----------------------|----------------------|----------------------|
| Vehicles                      | \$138,750,000        | \$55,500,000         | \$194,250,000        |
| Lang Maintenance Facility     | \$479,336,000        | \$0                  | \$479,336,000        |
| EMF Expansion*                | \$0                  | \$91,290,000         | \$91,290,000         |
| Midday Fueling Infrastructure | \$0                  | \$18,054,000         | \$18,054,000         |
| OSE Equipment                 | \$1,800,000          | \$720,000            | \$2,520,000          |
| <i>Subtotal</i>               | <i>\$619,886,000</i> | <i>\$165,564,000</i> | <i>\$785,450,000</i> |
| Project Management (4%)       | \$24,795,000         | \$6,623,000          | \$31,418,000         |
| Project Reserve (20%)         | \$123,977,000        | \$33,113,000         | \$157,090,000        |
| <b>Total</b>                  | <b>\$768,659,000</b> | <b>\$205,299,000</b> | <b>\$973,958,000</b> |

\*The EMF cost estimate for the SBCTA vehicle scenario does not account for any expansion needed to support a larger LHC fleet

**Table 7-2. Capital Cost Summary, Caltrans FLIRT Service Plan (2026 dollars)**

| Capital Element               | AVL                    | SBL                  | Total                  |
|-------------------------------|------------------------|----------------------|------------------------|
| Vehicles                      | \$277,500,000          | \$194,250,000        | \$471,750,000          |
| Lang Maintenance Facility     | \$479,336,000          | \$0                  | \$479,336,000          |
| EMF Expansion*                | \$0                    | \$448,852,000        | \$448,852,000          |
| Midday Fueling Infrastructure | \$18,054,000           | \$18,054,000         | \$36,108,000           |
| Platform Extensions           | \$38,497,000           | \$14,423,000         | \$52,920,000           |
| OSE Equipment                 | \$3,600,000            | \$2,520,000          | \$6,120,000            |
| <i>Subtotal</i>               | <i>\$816,987,000</i>   | <i>\$678,100,000</i> | <i>\$1,495,087,000</i> |
| Project Management (4%)       | \$32,679,000           | \$27,124,000         | \$59,803,000           |
| Project Reserve (20%)         | \$163,397,000          | \$135,620,000        | \$299,017,000          |
| <b>Total</b>                  | <b>\$1,013,063,000</b> | <b>\$840,844,000</b> | <b>\$1,853,907,000</b> |

\*EMF cost reflects a full-service facility for both MUs and LHCs, with storage for both vehicle types

The mixed fleet plans are based on the service plan in the SGDP which itself requires additional capital expenditure. To show the portion of the costs that are a result of introducing a new vehicle type rather than overall service ambitions, a cost comparison was developed against fleet related costs that would be needed in a SGDP baseline scenario without MUs. Costs that would be required in all scenarios, such as the planned Lancaster Terminal Improvements Project or track capacity projects, were excluded from the comparison.

Vehicle acquisition costs are similar between the LHC-only baseline and the SBCTA FLIRT service plan, with a difference of only \$8 million between the two plans. When replacing LHCs with 8-car MUs in the Caltrans FLIRT service plan, vehicle costs increase 168 million compared to the LHC-only baseline, as described in Section 4.4. The largest cost item for this Plan, however, is the two proposed facilities to maintain MUs. For an LHC-only service plan, the AVL would not require additional facility investment beyond the Lancaster Terminal Improvements, which are also assumed in this Plan. In contrast, some expansion of EMF would also be required even in an LHC-only baseline scenario. To estimate the cost of EMF buildout to support only LHCs, the cost for Phase 2 of the EMF was taken from the CMF Modernization and EMF Build-Out Study dated 2021, excluding proposed overhaul shop and zero-emission pilot components, and escalated to 2026 dollars based on the California

Construction Cost Index, as shown in Table 7-3. It should be noted that expansion of EMF for LHCs was not considered in the initial EMF concept for the SBCTA FLIRT service plan, and additional costs to support LHCs may be needed.

**Table 7-3. Estimated Capital Cost for LHC-Oriented EMF Build Out**

|                                         | Cost                |
|-----------------------------------------|---------------------|
| Construction Estimate (2021 dollars)    | \$42,365,000        |
| Escalation (5 years)                    | \$12,995,012        |
| <b>Construction Subtotal</b>            | <b>\$55,360,012</b> |
| Construction Contingency (15%)          | \$8,304,002         |
| Design (6%)                             | \$3,321,601         |
| Design Support During Construction (2%) | \$1,107,200         |
| Construction Management (5%)            | \$2,768,001         |
| Flagging (6%)                           | \$3,321,601         |
| Agency Costs (10%)                      | \$5,536,001         |
| <b>Total</b>                            | <b>\$79,718,418</b> |

The cost comparison is shown in Table 7-4. It should be noted that the fleet costs shown are based on the assumptions described in Section 4.4 and were developed for comparative purposes only. This expansion is unfunded and alternative operating plans may allow more efficient use of equipment. The comparison indicates that the MU plans increase the capital cost of delivering the proposed service by \$641 million to \$1.37 billion.

**Table 7-4. Capital Cost Comparison by Equipment Scenario**

|                                 | SGDP LHC<br>Baseline | SBCTA FLIRT Plan       | Caltrans FLIRT<br>Plan |
|---------------------------------|----------------------|------------------------|------------------------|
| Fleet                           | \$492,618,000        | \$500,943,000          | \$660,450,000          |
| Facilities                      | \$79,718,418         | \$588,680,148*         | \$964,296,504          |
| Platforms                       | \$0                  | \$0                    | \$52,920,031           |
| <b>Subtotal</b>                 | <b>\$572,336,418</b> | <b>\$1,089,623,148</b> | <b>\$1,677,666,535</b> |
| Project Management (4%)         | \$22,893,457         | \$43,584,926           | \$67,106,661           |
| Project Reserve (20%)           | \$114,467,284        | \$217,924,630          | \$335,533,307          |
| <b>Total</b>                    | <b>\$709,697,158</b> | <b>\$1,351,132,703</b> | <b>\$2,080,306,503</b> |
| <b>Difference from Baseline</b> | <b>N/A</b>           | <b>\$641,435,545</b>   | <b>\$1,370,609,345</b> |

\*Costs to accommodate additional LHCs at EMF were not assessed for the SBCTA FLIRT plan

## 7.1.2 Federal Sources

Several major federal programs fund rail improvements but exclude commuter rail. These include the Consolidated Rail Infrastructure and Safety Improvements, Federal-State Partnership for Intercity Passenger Rail, and Multimodal Project Discretionary Grant programs. These sources would not be able to fund MU vehicles or facilities for commuter rail purposes; however, signal improvements on the portion of the AVL shared with intercity service (Burbank to Los Angeles) could potentially be funded through one of these programs if an intercity nexus can be established. This would likely be

contingent on partnering with the state or Los Angeles - San Diego - San Luis Obispo Rail Corridor Agency with the intent to deploy MU vehicles in intercity Pacific Surfliner service.

FTA's Rail Vehicle Replacement Program could fund acquisition of MU vehicles if the new vehicles would replace older LHC trainsets. If MU vehicles are acquired as expansion vehicles rather than replacing locomotives, they would not be eligible for this program. This program requires a 50 percent match, with a maximum of 80 percent federal funding. This program was created by the Infrastructure Investment and Jobs Act and may not be reauthorized under the current federal administration.

All components needed to implement MU service would be eligible for the Better Utilizing Investments to Leverage Development (BUILD) program. However, the broad eligibility of this program makes it highly competitive, and awards are limited to \$25 million. Applications for the most recent program cycle were due in February. The program requires 20 percent of the project to be funded with non-federal matching sources. The BUILD program, previously known as the Rebuilding American Infrastructure with Sustainability and Equity and Transportation Investment Generating Economic Recovery discretionary grants, was established under the American Recovery and Reinvestment Act of 2009 and operated under annual appropriations until the Infrastructure Investment and Jobs Act appropriated \$1.5 billion annually for fiscal years 2022 to 2026.

It should be noted that selection priorities across multiple federal funding programs have changed under the current presidential administration to deemphasize emission reduction. As such, applications for components of this MU Implementation Plan will likely be less competitive than projects focused on capacity or safety.

### 7.1.3 State Funding Sources

The Solutions for Congested Corridors Program (SCCP) funds projects included in a Comprehensive Multimodal Corridor Plan that are intended to reduce congestion, vehicle miles traveled, and GHG emissions. If included in a qualifying Comprehensive Multimodal Corridor Plan, improvements to support service expansion using MUs could be eligible for this program. No match is required but funding leverage is considered desirable. Approximately \$500 million is available each cycle, with awards spread throughout the state.

The Local Partnership Program (LPP) funds projects nominated by agencies that administer voter approved sales taxes or user fees dedicated to transportation. Both Metro and SBCTA have such sales taxes and are eligible. The Program includes a formula funding component and a competitive grant program. The competitive program only funds capital projects (construction or vehicle purchases) and cannot be used for planning or design phases. The most recent cycle required 50 percent match. Like the Rebuilding American Infrastructure with Sustainability and Equity grant, this program has a \$25 million maximum award.

The most promising funding source to fund the improvements necessary to implement MU service is TIRCP. The purpose of this program is to fund projects to reduce GHG emissions, and the program has contributed funding to prior MU projects, including this study and SBCTA's acquisition of the FLIRT vehicles. Unlike many capital funding programs, TIRCP does not require projects to demonstrate cost effectiveness through a benefit-cost analysis. Instead, cost effectiveness is measured in the cost per ton of GHG emissions avoided. There is no maximum award, and funding levels vary based on cap-and-trade auction proceeds and Senate Bill 1 tax revenues. Approximately \$1.3 billion was awarded in 2024. No match is required but funding leverage is considered desirable.

The three state sources described above are all on biannual funding cycles, with applications falling in even numbered years.

### 7.1.4 Application Strategy

Funding programs vary with respect to the project phases that are eligible funding (ex. design vs construction) and often have a project readiness factor in the evaluation criteria. A potential strategy is to seek funds in a phased manner. Design activities for the necessary elements for MU implementation (vehicles, facilities, and signals) could be funded by one program to bring them to “shovel ready” status, at which point a subsequent application for capital funds could be made. Given that the most promising programs are not available for 2 years, it may be necessary to use local funds to advance project readiness, particularly the design of maintenance facility improvements. This would position Metrolink and its member agencies to then request capital funds in 2028 from TIRCP, SCCP and/or Local Partnership Program to construct the facility.

The development of the scope for funding requests is a key strategic consideration. The elements needed to implement MU service could potentially be funded separately if independent utility can be established. For example, only applying for funds towards signal improvements from one program. Conversely, the required improvements to support MU operations could be bundled with additional improvements into a larger program. For example, a double tracking project outside the scope of this Plan could be combined with the signaling improvements, vehicle acquisition, and facility improvements described in this Plan as an overall program to operate frequent MU service. This approach may allow for more compelling application responses across multiple evaluation criteria.

Matching funds are another important consideration in securing competitive grants. Even for programs such as TIRCP that do not have official matching requirements or maximum awards, providing a local match can make an application more competitive in several ways. Firstly, funding leverage itself is desirable. Secondly, in the case of TIRCP, matching funds can reduce the TIRCP request relative to estimated GHG reductions, thus increasing the project’s cost effectiveness. Lastly, funding programs have functional limits on award size due to the total funding available and the need for geographic equity in making awards. The total funding required to implement MU operations represents a large share of the anticipated available funds from state programs, and it is unlikely to be fully funded by a single program. It should also be noted that Metrolink and its member agencies may also have other projects to fund through these same programs.

The most expeditious funding strategy to implement MU operations is to use available local funds to advance design and environmental clearance of facility improvements and advanced planning for vehicle acquisition, which would position Metrolink and its member agencies to request capital funds in 2028 through TIRCP, SCCP and Local Partnership Program to fund construction and vehicle procurement.

## 7.2 Implementation Schedule

The schedule for implementing MU service is heavily dependent on funding availability and the scope of the plan that is implemented. The schedules developed below for the two service plan scenarios are intended to represent the most optimistic timeline for implementation of the full service plan while recognizing capital funding constraints. They assume that both lines are implemented in parallel, and that capital investment begins after a grant award in fall of 2028, with project development activities completed with local funding in preparation for one or more grant applications. If a larger amount of local funds can be committed for capital projects, the schedule could be advanced earlier by

approximately one year. Conversely, if local funding constraints require grant funding to be sought for project development, ultimate implementation will be delayed.

Funding availability may also limit the scope that can be progressed simultaneously, and the program may need to be phased, as further discussed in Section 7.2.3. To show the earliest that projects could be delivered, the project delivery method is assumed to be design-build for infrastructure improvements.

The critical path activities are to design and construct the maintenance facilities, then receive vehicle delivery and complete vehicle testing before beginning revenue service. The schedule provides one year for vehicle vendor selection, but this could potentially be expedited by using remaining Caltrans contract options; however, the manufacturing and delivery schedule would still need to be aligned with completion of the maintenance facilities. For vehicle testing to begin, a functional maintenance facility must be available to receive vehicle delivery and service them during testing.

Operation could begin as early as mid-2034 for the SBCTA vehicle service plan or early 2035 for the Caltrans vehicle service plan, which requires additional time for the delivery of the larger fleet of MUs. To achieve this timeline, it is critical that SCRRA and its member agencies develop a vehicle acquisition plan specifying the needs of the vehicle procurement and complete preliminary engineering and environmental clearance for the two maintenance facilities.



### 7.2.1 SBCTA FLIRT Service Plan

Table 7-4 shows the estimated durations of required activities to implement the mixed fleet service plan using seven 5-car SBCTA vehicles. The critical path follows completion of the Lang Facility to then allow acceptance of the majority of the fleet. Because the Lang facility requires right of way acquisition, it is expected to be completed later than the EMF improvements and after the earliest possible vehicle delivery date. Therefore, manufacturing and delivery of the two vehicles for the SBL and the five vehicles for the AVL are shown as separate lines.

**Table 7-5. Implementation Schedule, SBCTA FLIRT Service Plan**

[illegible]

7.2.2 Caltrans Vehicle Service Plan

Table 7-5 shows the estimated durations of required activities to implement the mixed fleet service plan using 17 4-car Caltrans vehicles. For this scenario, the critical path follows completion of all vehicles given that the larger fleet will need additional time. While the Lang facility is not expected to be available when deliveries commence, EMF will receive the first seven vehicles, and the Lang facility would become available for the last 10 deliveries.

Table 7-6. Implementation Schedule, Caltrans FLIRT Service Plan

| Activity                                      | Duration<br>(Months) | 2027 |    |    |    | 2028 |    |    |    | 2029 |    |    |    | 2030 |    |    |    | 2031 |    |    |    | 2032 |    |    |    | 2033 |    |    |    | 2034 |    |    |    | 2035 |  |  |  |
|-----------------------------------------------|----------------------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|--|--|--|
|                                               |                      | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |      |  |  |  |
| Grant Application                             |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Grant Application(s)                          | 4                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Grant award(s)                                | N/A                  |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Vehicle Acquisition                           |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Develop Vehicle Acquisition Plan              | 6                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Technical Specifications and RFP Development  | 9                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Request for Proposals and Vendor Selection    | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Vehicle Manufacturing                         | 36                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Vehicle Delivery                              | 24                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Vehicle Testing                               | 4                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Maintenance Facilities                        |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| EMF                                           |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Preliminary Design and Environmental Document | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Design-Build Procurement                      | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Final Design and Construction                 | 36                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Lang                                          |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Preliminary Design and Environmental Document | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Right of Way Acquisition                      | 21                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Design-Build Procurement                      | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Final Design and Construction                 | 36                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Signal Improvements                           |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| RFP Development                               | 9                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Contractor Procurement                        | 6                    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Install signal improvements                   | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Platform Extensions                           |                      |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Preliminary Design and Environmental Document | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Design-Build Procurement                      | 12                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |
| Final Design and Construction                 | 36                   |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |      |  |  |  |

### 7.2.3 Phasing Considerations

Given the overall cost of MU implementation compared to available funding in any given grant cycle, implementation will likely need to be phased. Implementing MUs on only one line at a time and starting with a smaller number of vehicles are options to reduce the initial capital cost outlay in alignment with funding availability. For the AVL, service for the LAUS to Santa Clarita trips could be considered as an initial phasing option before implementing service along the whole line to Lancaster.

## 8 ZEMU Pilot

The California Transit and Intercity Rail Capital Program Grant that partially funded this Plan included funding towards a Zero Emission Multiple Unit (ZEMU) pilot project on the Antelope Valley Line. The objective of the pilot would be to test zero-emission technology on one of the more challenging Metrolink rail corridors due to topography and temperature variation along the Antelope Valley Line. Data and performance measures would be collected to inform implementation on the AVL and elsewhere in the state, such as vehicle specifications for permanent MU acquisition. At stakeholder request, a pilot scenario was also assessed for the San Bernardino Line. This could potentially be operated as an independent pilot or an additional phase in combination with an AVL pilot. Each potential pilot service is shown in the figure below.

**Figure 8-1. Potential MU Pilot Program Services**



### 8.1 Pilot Scope

The pilot would include development of a program for measurement and analysis of operational performance metrics, construction of supporting infrastructure, operation of one MU trainset in pre-revenue testing and one year of revenue service testing, and collection of performance data.

### 8.1.1 AVL Pilot

The first stage of potential pilot implementation would be to determine the specific operating pattern for the proposed MU service.

Replacing LHC trips in the existing schedule would require MUs to operate from LAUS to Vista Canyon, at minimum. This would provide a meaningful demonstration of MUs on challenging terrain, but without confirmation that OSE will be approved, it would require signaling improvements on approximately 40 miles of the Valley Subdivision. It would also require resolution of safety concerns regarding the 6,976-foot Tunnel 25, located between Sylmar/San Fernando and Newhall stations. As noted in Section 2.3.4, there is a high likelihood that the 4-car FLIRTs being manufactured for Caltrans are not powered sufficiently to match the acceleration of SCRRA's LHCs on AVL with its significant grades north of Sylmar and therefore may not be capable of adhering to the existing schedule for a LAUS to Vista Canyon pilot. It is recommended that simulations be performed to assess the impact to the schedule and operations of mixing this different vehicle into the schedule prior to proceeding with the pilot.

Options to move forward with a more truncated service as an overlay to existing LHC service were also considered, as this would reduce necessary signaling improvements and avoid challenges related to operation within Tunnel 25. Between Newhall and the Burbank junction, the Valley Subdivision is primarily single track, with the exception of one siding, and all three stations only have one track. This presents challenges in introducing an overlay MU service, because occupying the main line while changing direction at the terminal station would conflict with LHC and freight operations. In contrast, briefly running onto the Ventura Subdivision to terminate at Burbank Airport-South or Van Nuys would be more operationally feasible, and allow a connection to the Burbank Airport, which could be particularly beneficial during the Olympic games. Both of these stations have two tracks and have nearby crossovers that would allow MU trains to switch tracks after changing directions.

Preliminary scheduling analysis indicates opportunities to run MUs between trains in the current schedule between LAUS and Burbank Airport-South or Van Nuys, but this should be verified with more detailed analysis prior to implementation. The maximum grade for either of these routes is 1.1 percent, which reduces performance challenges meeting the schedule but would not provide the originally desired operational data from testing MUs on steeper grades. The beginning of the pilot should be aligned with SCRRA's regular semi-annual schedule change and any additional runtime needed should be considered as part of the schedule change.

### 8.1.2 SBL Pilot

For the San Bernardino Line, existing track capacity precludes operating additional service as overlay to the existing daytime schedule, limiting potential pilot operation to either additional late night or weekend service or replacement of existing trains in the schedule. Within the current schedule, some trains operate only between LAUS and Montclair. While the San Bernardino Line has the highest ridership in the system, a review of conductor counts on these trips indicates that the ridership on these trips would not pose a seating capacity challenge for a 4-car FLIRT. Therefore, platform length would not be a challenge. While these trips were identified as most suitable to be replaced in a pilot scenario based on existing conditions, the specific operating pattern for a pilot is flexible and would be determined as part of SCRRA's regular schedule change process. Based on synergy with Metro's pilot and Caltrans testing on the LOSSAN corridor, the pilot is envisioned as extending outward from LAUS, but could potentially be extended further into San Bernardino County.

### 8.1.3 Combined Pilot

A pilot could be pursued on both lines either concurrently or sequentially. The equipment cycle for the pilot vehicle could be designed to include trips on both lines in the same day, but fewer trips on each line. Alternatively, the service could be piloted on one line for a period and then shifted to the other line.

## 8.2 Capital Requirements and Costs

To operate a short-term one-year pilot on either line, it is recommended that SCRRA borrow two of the 10 Stadler 4-car H2 FLIRTs being procured by Caltrans as demonstration units to be operated on various rail systems throughout the state. Only one vehicle would be scheduled to operate each day, but the second vehicle would act as a spare to ensure that regular service can be maintained, making the pilot a meaningful part of the Metrolink's schedule and allowing sufficient data to be collected. Coordination with Caltrans has indicated that two vehicles may be made available on a temporary basis. Specific details regarding the arrangement will be determined through future negotiations. Borrowing a vehicle from Caltrans would avoid the significant schedule delay of a separate procurement and manufacturing process, avoid the cost of procurement, and eliminate the need for SCRRA to find a home for the vehicle after the one-year pilot project is completed.

### 8.2.1 Mini-High Platforms

The Caltrans H2 FLIRTs were procured with on-board ramps and stairs that automatically deploy when the doors are opened and are compatible with the existing 8-inch Metrolink platforms. However, only the middle cars of the trainset are ADA-accessible. At most stations, aligning the second door of the train with the existing mini-high would not allow the first door on the train to open, even if total platform length exceeds the length of the train. To address this, it is recommended that temporary mini-high platforms be installed on the 18 platforms proposed for pilot service. EZ Access, manufacturer of the metal mini-high platforms currently in use at the San Bernardino Transit Center, provided an estimated cost of \$115,622 for 18 mini-highs in 2026 dollars based on current materials pricing. While these prices are expected to be volatile, the total cost for temporary mini-highs is small relative to the other capital needs described below. Table 7-6 provides a breakdown of the costs.

**Table 8-1. Temporary Mini-High Platform Costs**

|                               | Quantity  | Unit Cost         | Total            |
|-------------------------------|-----------|-------------------|------------------|
| LAUS to Burbank Airport South | 7         | \$6,423.42        | \$44,964         |
| LAUS to Van Nuys              | 9         | \$6,423.42        | \$57,811         |
| LAUS to Montclair             | 9         | \$6,423.42        | \$57,811         |
| <b>Total</b>                  | <b>18</b> | <b>\$6,423.42</b> | <b>\$115,622</b> |

### 8.2.2 Temporary Light Maintenance Facility

A temporary light maintenance facility would need to be constructed for the one-year pilot program to perform required maintenance, cleaning, and fueling of the vehicle. There is not sufficient space at the SCRRA's Central Maintenance Facility to accommodate a 4-car MU, so potential sites along the AVL

and SBL were assessed for feasibility. Three potential sites were identified, two near LAUS that would be suitable for a pilot on either line, and one on the SBL east of Interstate 605:

- **Keller Yard**, located just east of LAUS on the River Subdivision, is already owned by Metro and contains existing trackwork that can be re-used for the project requirements. However, vehicle circulation is limited and the site is adjacent to a Los Angeles Police Department helicopter operations base, which may present additional safety concerns with regard to hydrogen storage.
- An unused portion of **Rondout Street** is located directly north of the tracks leading into LAUS, and SCRRA staff indicated that Metro owns a rail easement for this property.
- A site along **Railroad Avenue** in the City of Industry would also be suitable for an SBL pilot operation. The site is largely within existing Metro-owned right of way and would require an easement from the city for use of its right of way but would not encroach onto the existing roadway.

It should be noted that Keller Yard is currently in use for SCRRA's fleet refurbishment efforts as part of preparation for the 2028 Olympic Games and would not be available for construction to begin until after completion of the games.

Rough order of magnitude cost estimates for each potential site are shown in Table 7-7.

**Table 8-2. Temporary Maintenance Facility Cost**

|                                         | Keller Yard         | Rondout Street      | Railroad Avenue     |
|-----------------------------------------|---------------------|---------------------|---------------------|
| Construction                            | \$9,418,400         | \$9,464,800         | \$11,085,600        |
| Construction Contingency (25%)          | \$2,354,600         | \$2,366,200         | \$2,771,400         |
| Environmental (3%)                      | \$282,552           | \$283,944           | \$332,568           |
| Design (12%)                            | \$1,130,208         | \$1,135,776         | \$1,330,272         |
| Design Support During Construction (5%) | \$470,920           | \$473,240           | \$554,280           |
| Construction Management (8%)            | \$753,472           | \$757,184           | \$886,848           |
| Agency Costs (10%)                      | \$941,840           | \$946,480           | \$1,108,560         |
| <b>Total</b>                            | <b>\$15,351,992</b> | <b>\$15,427,624</b> | <b>\$18,069,528</b> |

### 8.2.3 Infrastructure Cost Summary

The total infrastructure cost required to facilitate a pilot under each scenario is summarized in Table 7-9. The total cost of infrastructure required to support a pilot is estimated to be \$19.2 to \$19.3 million. Approximately \$8.5M is available from the TIRCP award, leaving a funding gap of \$10.7 to \$10.8 million. The estimates below assume the Rondout Street site for the temporary facility, which is the higher cost of the two sites central to Los Angeles, which provide flexibility for pilot operations on both lines.



**Table 8-3. Estimated Capital Cost for ZEMU Pilot**

|                                | LAUS-<br>Burbank<br>Airport South | LAUS-Van<br>Nuys    | LAUS-<br>Montclair  | Combined<br>Pilot (Van<br>Nuys-<br>Montclair) |
|--------------------------------|-----------------------------------|---------------------|---------------------|-----------------------------------------------|
| Temporary Mini-High Platforms  | \$45,000                          | \$58,000            | \$58,000            | \$116,000                                     |
| Temporary Maintenance Facility | \$15,428,000                      | \$15,428,000        | \$15,428,000        | \$15,428,000                                  |
| <b>Subtotal</b>                | <b>\$15,473,000</b>               | <b>\$15,485,000</b> | <b>\$15,485,000</b> | <b>\$15,543,000</b>                           |
| Project Management (4%)        | \$619,000                         | \$619,000           | \$619,000           | \$622,000                                     |
| Project Reserve (20%)          | \$3,095,000                       | \$3,097,000         | \$3,097,000         | \$3,109,000                                   |
| <b>Total</b>                   | <b>\$19,186,000</b>               | <b>\$19,202,000</b> | <b>\$19,202,000</b> | <b>\$19,274,000</b>                           |

## 8.3 Pilot Implementation Schedule

Table 7-10 shows an estimated timeline for completion of the required capital improvements before implementing a pilot program. The critical path for implementation is the temporary maintenance facility, which is optimistically assumed to take three years to design and construct. If project development proceeds immediately, this would allow vehicle testing to potentially begin in mid-2029 at the earliest. The Caltrans vehicles are expected to begin deliveries in 2027, with the last vehicles delivered in 2029.

**Table 8-4. Pilot Implementation Schedule**

| Activity                              | Duration<br>(Months) | 2026 |    | 2027 |    |    |    | 2028 |    |    |    | 2029 |    |    |    | 2030 |    |    |    |  |  |
|---------------------------------------|----------------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|--|--|
|                                       |                      | Q3   | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 | Q1   | Q2 | Q3 | Q4 |  |  |
| <b>Temporary Maintenance Facility</b> |                      |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Environmental Clearance/Design        | 12                   |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Contractor Procurement                | 6                    |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Construction                          | 18                   |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| <b>Program Development</b>            |                      |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Performance Measurement Plan          | 12                   |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Service Planning                      | 6                    |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| <b>Pilot Operations</b>               |                      |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Non-revenue Testing                   | 6                    |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |
| Revenue Service                       | 12                   |      |    |      |    |    |    |      |    |    |    |      |    |    |    |      |    |    |    |  |  |

## 8.4 Safety and Operational Considerations

The Caltrans FLIRT meets the FRA crashworthiness requirements per the alternate compliance process described in 49 CFR Part 238 Appendix G, which was added by FRA in 2019. This should be viewed as equivalent to the crashworthiness standards required by SCRRRA's insurance carriers, but there is a chance of issues in this regard, and it is recommended that the insurance carriers be consulted prior to proceeding with the pilot.

## 9 Conclusion

Projected ridership levels demonstrate that high-capacity LHC trains are the optimal choice for most equipment cycles in the planned future schedules envisioned in the SGDP, but there is opportunity to replace some trips on the SBL and AVL with lower-capacity MUs, which could result in emissions reductions and potential operational savings for the AVL. Implementation of mixed service on the SBL and AVL will require substantial capital investment and either modification of Metrolink's planned 30-minute clockface schedules or redesign of the selected vehicle.

It should be noted the conclusions of this Plan are driven by the specifications of the Stadler FLIRT H2 and may not generalize to all MU vehicles. For example, a bilevel MU would be expected to have fewer challenges regarding seating capacity and platform length than single-level vehicles such as the FLIRT. Similarly, alternative propulsion technology, such as battery power or overhead catenary, would likely change the performance characteristics and layover requirements that influence service planning and capital needs.

While this Plan assessed like for like replacement of trips on the SBL and AVL in the planned future schedule with MUs, it does not preclude alternative service patterns in the future, such as operation of MUs on other lines other or increased frequency beyond what is envisioned in the SGDP. Given the substantial facility investment required and the current use of the existing fleet and facilities by multiple lines, the role of MUs in the systemwide fleet should be considered holistically before proceeding with major maintenance facility improvements, and facility design should not preclude expansion of MUs to the extent feasible.

If SCRRA and its member agencies move forward with implementing mixed fleet service on the SBL and AVL, the next step would be to begin project development (design and environmental clearance) of maintenance facility improvements on each line and develop a vehicle acquisition plan. If local funds are available, the most expeditious pathway to implementation is to fund these efforts locally to position Metrolink and its member agencies to apply for future capital grant funding with strong project readiness. In addition to securing capital funds, SCRRA and its member agencies must plan for the estimated increase in operating costs that is expected with the new vehicle type.

It should also be noted that the future initiation of Brightline West service connecting in Rancho Cucamonga adds additional challenges to the operation of FLIRTs along the SBL beyond passenger transfer volume. The capacity analysis conducted for this Plan considers only average weekday passenger loads; however, transfers from Brightline are likely to be less predictable than regular trips, with certain days of week and times of year likely to be busier than others, potentially resulting in overcrowding of MUs. Furthermore, many Brightline passengers are likely to be carrying luggage which takes additional space that is not accounted for in the analysis of seating capacity.



# METROLINK

## Multiple Unit Implementation Plan Overview

Receive and file **143**

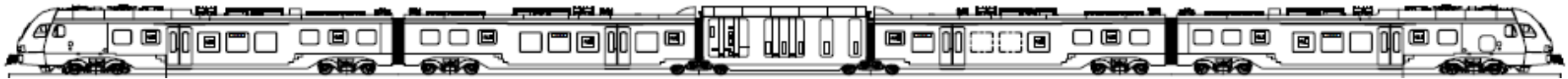
# Vehicle Overview

## Multiple Unit (MU) vs Existing Fleet

- MU trains – single-level cars, **permanently linked together**
- Existing fleet – locomotives and bi-level cars, higher capacity



*2-car MU and legacy LHC at San Bernardino Depot*



*4-car MU with hydrogen power pack*

**METROLINK**

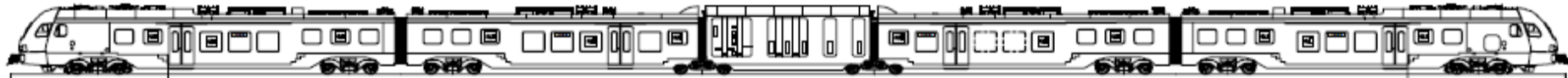
# Key Findings

- Opportunities to serve low-ridership trips are limited for end-to-end service
- To meet projected ridership, coupled MUs are required which increases staffing and operational costs
- Maintenance facilities are the primary driver of cost and schedule for MU implementation
- Operation of hydrogen powered ZEMUs through tunnels is currently not allowed



# Service Plan Development

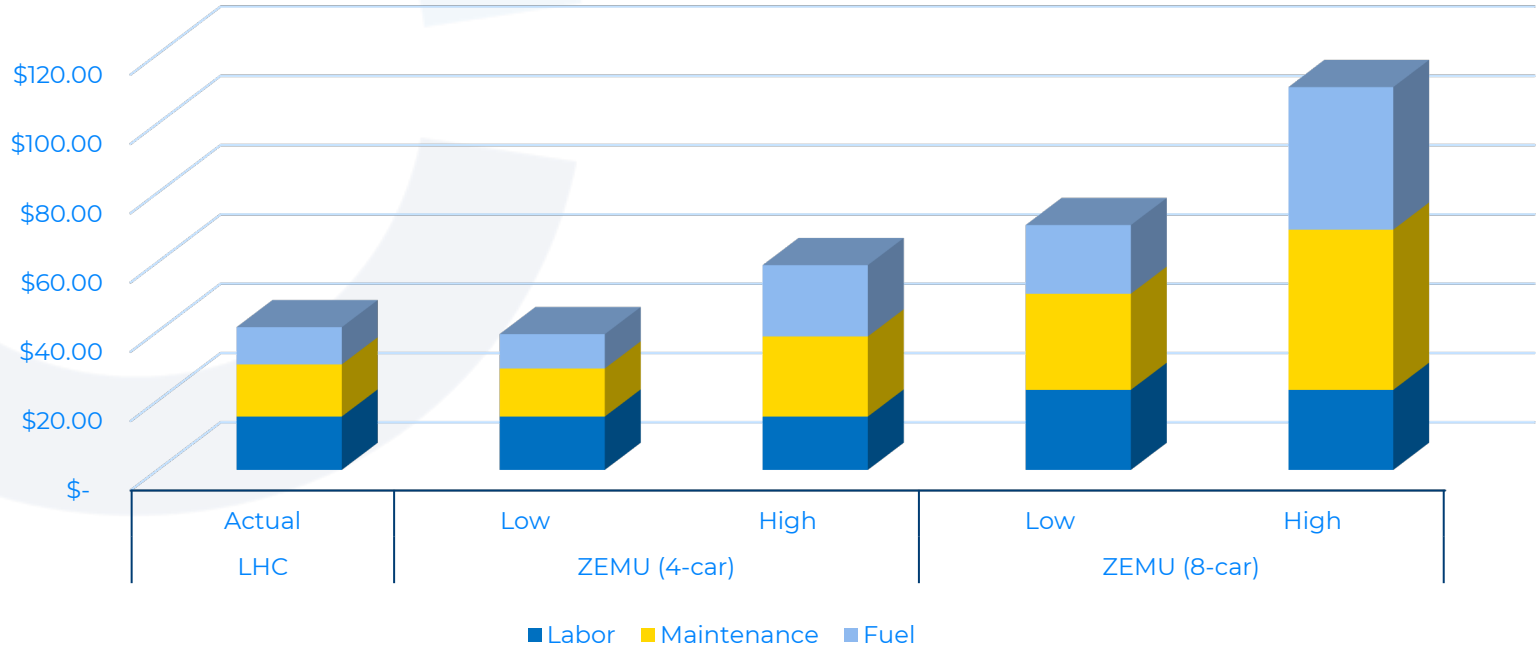
- Based on Service Growth Development Plan
- **AVL**
  - All trips from LAUS to Santa Clarita can be replaced with 4-car MUs
  - 2 of 8 trainsets operating between LAUS and Lancaster can be replaced by 8-car MUs (coupled set)
- **SBL**
  - 3 of 12 trainsets operating between LAUS and San Bernardino can be replaced by 8-car MUs (coupled set)





# O&M Costs

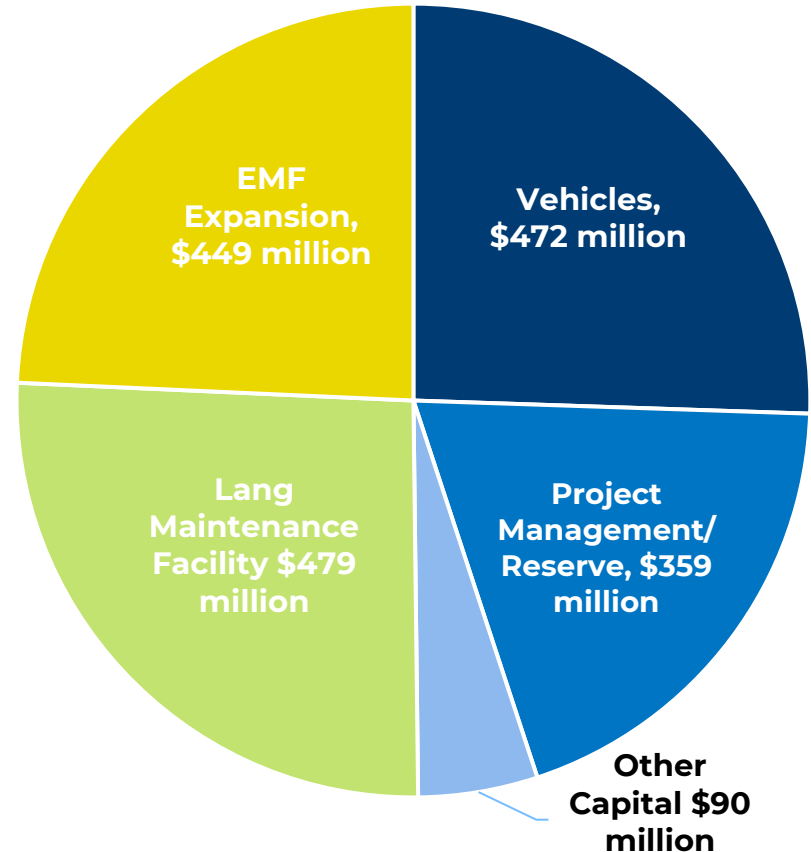
Fuel, Maintenance and Crew Cost Per Train Revenue Mile



# Capital Requirements and Cost

## Required Capital Investment

- MU vehicles (17 x 4-car)
- Infrastructure
  - EMF expansion
  - New Lang Maintenance facility
  - Platform extensions for 8-car trains
- Total cost of \$1.85 billion
  - \$841 million for SBL
  - \$1.01 billion for AVL



# Pilot Implementation

- Pilot Scope
  - Two Caltrans ZEMUs
  - Recommended service
    - AVL: new service between LAUS and Burbank Airport
    - SBL: replace existing service from LAUS to Montclair
- Requirements
  - Temporary maintenance facility
  - Temporary mini-high platforms required to provide ADA access
- **Total capital cost estimate: \$19.2 million**







**METROLINK**

Thank you.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-282-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** Sole Source Contract EP255-26 with Westinghouse Air Brake Technologies Corporation (WABTEC) for Purchase of New Parts and Repair and Return Services for Maintenance of Rolling Stock Equipment

### **Issue**

The Authority's Materials Management Department is seeking approval to negotiate and award a multi-year sole source contract with WABTEC to allow for the purchase of new parts and repair services needed to perform maintenance of the Authority's rolling stock.

### **Recommendation**

It is recommended that the Board authorize the Chief Executive Officer to negotiate and award a three-year term Sole Source Contract with Westinghouse Air Brake Technologies Corporation (WABTEC) for the procurement of new parts and repair and return services for an estimated not-to-exceed amount of \$10,288,510.

### **Strategic Commitment**

The report aligns with the Strategic Business Plan commitment of:

- **Customers Are Our Business:** We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to bring them on board. This single source contract allows Metrolink the ability to purchase and maintain adequate inventory of the parts needed to support the timely maintenance of the Authority's Rolling stock.



## **Background**

WABTEC is the parent company of the following Original Equipment Manufacturers: Bach-Simpson, Microphor Inc, Motive Power Industries, Railroad Friction Products Corp, Transtech of South Carolina, Vapor Stone Rail Systems, Wabtec Global Services, and Wabtec Passenger Transit Div. These manufacturers collectively supply the Authority with different types of parts that support the maintenance of our rolling stock.

Currently the Authority purchases parts and repair and return services from these WABTEC manufacturers on an as needed basis utilizing contract authority approved by the Board each fiscal year through its annual budget request process. The successful negotiation of a multi-year contract agreement with WABTEC will replace the yearly request brought before the board for annual contract authority for all of these WABTEC manufacturers.

## **Discussion**

WABTEC and its OEM subsidiaries are the Authority's main suppliers for 274 one-time-use parts and 137 repairable parts used in the maintenance of its Rolling Stock. By establishing a multi-year agreement with WABTEC, the Authority will be able to negotiate favorable terms, shorter lead times, and lock in set pricing. This will allow for better forecasting and improve availability of key components to support timely maintenance of the rolling stock.

In addition, establishing a multi-year contract with WABTEC will also streamline the procurement process and significantly reduce purchase order processing times. Instead of requesting new quotes for every purchase order, this contract will allow for the creation of a blanket purchase agreement within our ERP system. With pricing already set, the procurement department will be able to process purchase orders in a more efficient and cost-effective manner.

## **Budget Impact**

The amount of contract authority needed for FY27 is \$2,572,127 and has been included in the Proposed FY27 Operating Budget. Use of the funds will be contingent upon Board approval or the FY27 budget. Funds needed for subsequent fiscal years will be requested through the annual budget process.

## **Next Steps**

Upon approval of this request, staff will reach out to WABTEC to negotiate pricing and establish a three-year agreement for the purchase of new one-time use parts and repair and return services. Orders will be placed on as-needed basis.

Prepared by: Eduardo Tovar, Manager II, Inventory Control



Approved by: Tom Schamber, Chief Financial Officer

**Attachment(s)**

Presentation - Sole Source Contract EP255-26 with WABTEC



# METROLINK

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**Sole Source Contract EP255-26 with Westinghouse Air Brake Technologies Corporation (WABTEC) for Purchase of Parts and Repair and Return Services needed for Maintenance of Rolling Stock Equipment**

# Background

- WABTEC is the parent company of the following Original Equipment Manufacturers (OEMs): Bach-Simpson, Microphor Inc, Motive Power Industries, Railroad Friction Products Corp, Transtech of South Carolina, Vapor Stone Rail Systems, Wabtec Global Services, and Wabtec Passenger Transit Div.
- Most of the parts produced by these OEMs are only available for purchase directly through WABTEC.
- The parts are used on every type of rolling stock equipment the Authority owns.
- Currently, the Authority purchases parts and repair and return services from WABTEC using contract authority approved by the Board as part of the annual budget process.
- The successful negotiation of a multi-year contract agreement with WABTEC will replace the yearly request for contract authority brought in front of the board.

# Discussion

- WABTEC is the Authority's sole supplier for 274 one-time-use parts and 137 repairable parts.
- A multi-year agreement will allow the Authority the ability to negotiate favorable terms, shorter lead times, lock in set pricing, and improve forecasting.
- Additionally, with pricing already set, procurement will be able to process POs in a more efficient and cost-effective manner.







**METROLINK**

## Recommendation

It is recommended that the Board authorize the CEO to negotiate and award a three-year Sole Source Contract with Westinghouse Air Brake Technologies Corporation (WABTEC) for an estimated not-to-exceed amount of \$10,288,510 for the purchase of new parts and repair and return services.





**METROLINK**

Thank you.





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**ITEM ID:** 2026-278-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** Single Source Contract with Calmat Co. dba Vulcan Materials Co. for Provision of Railway Ballast and Rip-Rap Rock

**Issue**

The Authority's Materials Management Department is seeking approval to negotiate and award a single source contract with Calmat Co. dba Vulcan Materials Co for the provision of Railway Ballast and rip-rap rock needed to support the maintenance of the Authority's right-of-way.

**Recommendation**

It is recommended that the Board authorize the Chief Executive Officer to negotiate and award a three-year Single Source Contract with Calmat Co. dba Vulcan Materials for the provision of as needed railway ballast and rip-rap rock for an estimated not-to-exceed amount of \$983,501.

**Strategic Commitment**

The report aligns with the Strategic Business Plan commitment of:

- **Safety is foundational:** We will stay on the leading edge by deploying new technologies and processes to enhance the safety and security of our riders, employees and the communities we serve. This single source contract allows Metrolink the ability to purchase Railway ballast and rip-rap rock needed to maintain the stability and state of good repair of the Authority's track system.

## **Background**

Railway ballast and rip-rap rock are critical components of the railroad track system. Ballast supports load distribution, track stabilization, water drainage, vibration and noise absorption. Rip-rap rock prevents soil erosion. This single source contract will allow the Materials Management department the ability to purchase the needed ballast and rip-rock in a timely manner to ensure the Authority's track system is kept in a state of good repair.

## **Discussion**

The Contracts and Procurement department has attempted to establish a multi-year contract for the provision of ballast and rip-rap rock twice over the last year and a half. IFB PO985-25 closed on April 28, 2025 without any bids, then IFB PO1010-26 was posted and closed on January 16, 2026 again without any bids. Due to these two unsuccessful IFBs, a market analysis was performed to find out why the two IFBs closed without any bids. The finding was that due to the high cost of freight that's required to move ballast, it is not cost effective for suppliers that do not have facilities close to the delivery locations to bid.

Vulcan Materials Co has been the Authority's supplier of ballast and rip-rap since 2010 and it is the only supplier well positioned to supply the ballast and rip-rap quantities the Authority requires.

The approval of this Single Source Procurement method will allow the Contracts and Procurement department to negotiate a multi-year agreement with Vulcan Materials Co and establish firm pricing for ballast and rip-rap rock for the length of the contract.

## **Budget Impact**

The amount of contract authority needed for the first year is \$247,833 and has been included in the FY27 Proposed Operating Budget and use of the funds is contingent upon the Adoption of that budget by the Board. Funding for subsequent years will be requested through the annual budget process and is contingent upon approval by the Board.

## **Next Steps**

Upon approval of this request, staff will negotiate pricing with Calmat Co. dba Vulcan Materials Co and establish a three-year agreement for the provision of ballast and rip-rap rock. Orders will be placed on as needed basis.

Prepared by: Eduardo Tovar, Manager II, Inventory Control

Approved by: Tom Schamber, Chief Financial Officer

## **Attachment(s)**

[Presentation - Single Source Contract with Vulcan Materials Co.](#)



# METROLINK

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**Approval to Proceed – Single Source Procurement – Calmat Co. dba Vulcan Materials Co. – for the Provision of Railway Ballast and Rip-Rap Rock**



# Background

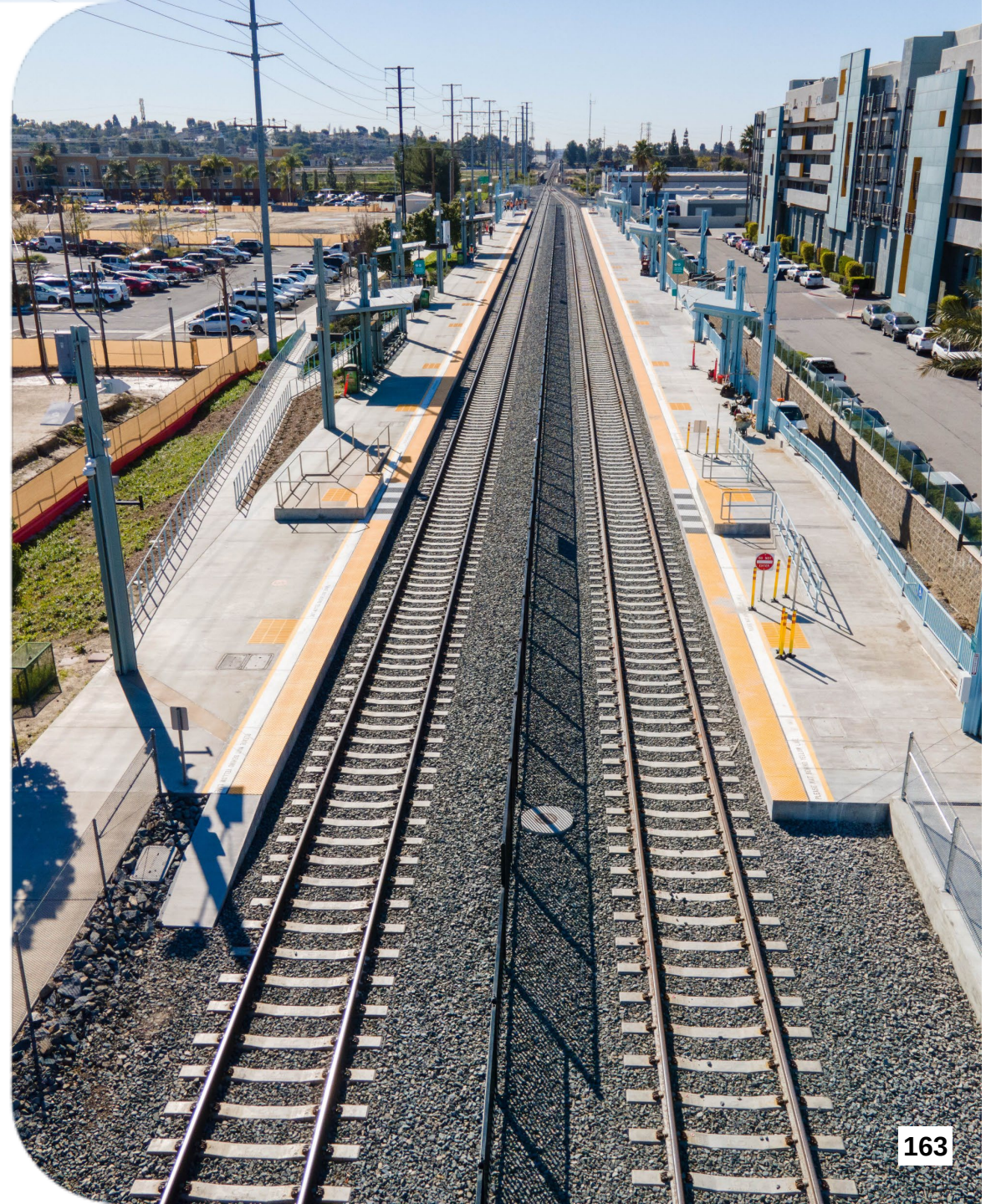
- The Authority requires ballast and rip-rap rock to be delivered in truckloads to specific points along the right of way to support timely maintenance of the track system.
- Railway Ballast supports load distribution, track stabilization, water drainage and vibration noise absorption.
- Rip-rap rock prevents soil erosion.
- Both are critical components that allow trains to travel safely through the tracks.
- Having a supplier under contract allows the Authority's Materials Management department the ability to request and schedule deliveries as soon as a need is identified.





# Discussion

- The Contracts and Procurement department posted Invitation For Bids (IFBs) PO985-25 and PO1010-26 in the open market to establish a multi-year contract for the provision of ballast.
- IFB PO985-25 closed on 4/28/25 without any bids. IFB PO1010-26 closed on 1/16/26 again without any bids.
- Market analysis found that due to high cost of freight, it is not cost effective for suppliers without facilities in the area to bid on the IFBs.
- Vulcan Materials has been the Authority's ballast and rip-rap supplier since 2010 and is well positioned to supply the materials and quantities needed.
- With the approval of this Single Source Procurement, the contracts department will negotiate and establish a multi-year agreement with Vulcan Materials for the provision of ballast and rip-rap rock.







## Recommendation

It is recommended that the Board authorize the CEO to negotiate and award a three-year Single Source Contract with Calmat Co. dba Vulcan Materials Co. for the provision of railway ballast and rip-rap rock for an estimated not-to-exceed amount of \$983,501.





**METROLINK**

Thank you.


[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-266-0  
**TRANSMITTAL DATE:** September 18, 2026  
**MEETING DATE:** September 25, 2026  
**TO:** Board of Directors  
**FROM:** Justin Fornelli, Chief, Program Delivery  
**SUBJECT:** Contract No. C3172-27 - CMF Restroom Refurbishment Project  
 - Recommendation to Award - Blackpointe Group  
 Construction and Management

### **Issue**

The Authority requires the refurbishment of the restrooms at the Central Maintenance Facility (CMF), located at 1555 N. San Fernando Road, Los Angeles, CA 90065. The existing restrooms have reached the end of their useful service life, require frequent repairs, and no longer adequately support daily operations. Refurbishment is necessary to restore the facilities to a state of good repair, improve reliability, and provide functional restroom facilities for employees.

### **Recommendation**

It is recommended the Board authorize the Chief Executive Officer to negotiate and award Contract No. C3172-27 Central Maintenance Facility Restroom Refurbishment Project to the responsive and responsible bidder, Blackpointe Group Construction and Management, in the amount of \$695,303.48 plus 15% contingency of \$104,295.52, for a total not-to-exceed amount of \$799,599.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. This project advances state of good repair goals by

replacing obsolete systems with modern, maintainable equipment, increasing operational efficiency and reducing unplanned outages.

## **Background**

This project addresses the critical need to refurbish and upgrade the deteriorated restrooms at the CMF, a key operational site. These improvements are essential to maintain the facility in a state of good repair.

The subject restrooms were out of service for several months in 2026 due to major water leak repairs, requiring the use of temporary mobile restroom facilities to support ongoing operations.

In addition, the proposed upgrades will enhance working conditions at CMF by providing employees with modern, reliable restroom facilities updated to meet contemporary requirements for new construction and promote employee health, comfort, and well-being.

## **Discussion**

On April 10, 2026, Staff issued an Invitation for Bids (IFB) for a contract term of 19 months. The solicitation was posted on the Authority's e-procurement system, advertised across the five member counties, and sent to vendors registered in the Authority's database. Representatives from six firms attended the pre-bid meeting and job walk on April 22, 2026. Ten (10) bids were received by the June 18, 2026 deadline. Staff reviewed all bids for responsiveness, responsibility, mathematical accuracy, and compliance with procurement and regulatory requirements. Blackpointe Group Construction and Management is deemed the lowest, responsive, and responsible bidder.

## **Bid Summary**

| <b>No.</b> | <b>Contractor</b>                             | <b>Bid Amount</b> | <b>Notes</b>                              |
|------------|-----------------------------------------------|-------------------|-------------------------------------------|
| 1          | Blackpointe Group Construction and Management | \$695,303.28      | Lowest, Responsive and Responsible Bidder |
| 2          | R.dependable Construction Inc.                | \$885,000.00      |                                           |
| 3          | Global Builders, Inc.                         | \$942,239.00      |                                           |
| 4          | US Builders and Consultants Inc.              | \$989,400.00      |                                           |
| 5          | M. Brey, Inc.                                 | \$1,173,302.98    |                                           |
| 6          | Aguilar & Calderon Corporation                | \$1,325,000.00    |                                           |
| 7          | LuMar Corporation                             | \$1,452,000.00    |                                           |
| 8          | MLC Constructors Inc.                         | \$1,698,942.00    |                                           |
| 9          | G2K Construction, Inc.                        | \$1,756,000.00    |                                           |
| 10         | Simgel Co., Inc.                              | \$2,926,000.00    |                                           |



The lowest bid received was **\$695,303.28**, compared with an ICE of **\$1,346,309.00**. This represents a difference of **\$651,005.72**, with the lowest bid being approximately **48.4% below the ICE**. This difference was investigated through a unit cost analysis by the engineering consultant who issued the ICE, followed by Requests for Clarification to the bidder, who responded in detail to our assessment requests. We found that the bidder is utilizing a significant portion of the work through its in-house workforce, with limited reliance on subcontractors, reducing overhead and subcontractor markups. We also found that the bidder conducted its due diligence, including market research and outreach, to obtain current budgetary pricing for project elements. Finally, through its response to the Requests for Clarification, the bidder assured and reconfirmed its ability to complete the project in accordance with the contract documents within the bid price.

### **Budget Impact**

The amounts for which contract authority is requested are included in the adopted Capital Budget for FY 2024 & FY 2023 (\$799,599.00), consisting of the bid amount of \$695,303.48 plus a 15% contingency of \$104,295.52.

### **Next Steps**

Upon Board approval, Staff will execute the contract and issue the Notice to Proceed. Staff will then coordinate with the Contractor and CMF stakeholders to initiate kickoff and mobilization activities, followed by submittal processing, construction phasing, testing, and final acceptance.

Prepared by: Sharon Williams, Senior Contract & Compliance Administrator  
Arsany Gorgyous, Railroad Systems Engineer I

Approved by: Justin Fornelli, Chief, Program Delivery

### **Attachment(s)**

[Presentation - C3172-27 CMF Restroom Refurbishment](#)



# METROLINK



## Contract No. C3172-27 – CMF Restroom Refurbishment Project

# Issue

The Authority requires refurbishment of the restrooms at the Central Maintenance Facility (CMF). The existing restrooms have reached the end of their service life, required frequent repairs, and therefore needed to be refurbished.





# Recommendation

It is recommended that the Board delegate authority to the CEO to negotiate and award Contract No. C3172-27 to Blackpointe Group Construction and Management, in the amount of \$695,303.48 plus 15% contingency of \$104,295.52, for a total not-to-exceed amount of \$799,599.





**METROLINK**

Thank you.

For questions contact us at:  
[gorgyousa@scrra.net](mailto:gorgyousa@scrra.net)



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-289-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Justin Fornelli, Chief, Program Delivery

**SUBJECT:** Contract No. C3173-27 - Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project - Recommendation to Award - DRS Contracting

**Issue**

Rehabilitation and/or replacement of various track and structures infrastructure within the Ventura Subdivision are required to maintain a state of good repair and maintain the safety and reliability of the existing rail system and supporting infrastructure.

Rehabilitation of Tunnel 25 and Tunnel 26 track and drainage infrastructure improvements within the Valley Subdivision and Ventura Subdivision, respectively, are required to maintain a state of good repair and maintain the safety and reliability of the existing rail system and supporting infrastructure.

A new contract is required through which the various improvements described above will be implemented.

**Recommendation**

It is recommended that the Board authorize the Chief Executive Officer to award Contract No. C3173-27 – Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project to the lowest responsive and responsible bidder, DRS Contracting, for \$17,519,500 plus 10% contract contingency of \$1,751,950.00 for a total not-to-exceed amount of \$19,271,450. This recommendation is subject to the resolution of any timely filed protest.



## **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Safety is Foundational:** We will stay on the leading edge by performing improvements to our track system to enhance the safety of our riders, our fellow employees, and the communities we serve. This contract will reduce train delays and interruptions while increasing safety and service reliability by maintaining our rail assets in a state of good repair.

## **Background**

The Authority proposes to replace sections of track, structures along various locations on the Ventura Subdivision. The Authority also proposes rehabilitating Tunnel 25 and Tunnel 26 track infrastructure on the Valley Subdivision and Ventura Subdivision, respectively. The Ventura Subdivision serves Metrolink's Ventura County Line, Amtrak Pacific Surfliner intercity rail, Amtrak's long distance Coast Starlight, and Union Pacific Railroad freight trains and is identified as the second most heavily traveled intercity passenger rail corridor in the nation. The Valley Subdivision serves Metrolink's Antelope Valley Line and Union Pacific Railroad freight trains.

The Authority secured Federal funding for this project under the FRA's Federal-State Partnership for State of Good Repair Grant Program by utilizing SCORE associated Transit and Intercity Rail Program (TIRCP) funding managed by the State (Caltrans) as a match. Since this project was able to leverage TIRCP funds to secure Federal funding, these improvements will enhance the safety, reliability and resiliency of Metrolink's railway system and maintain our rail assets in a state of good repair prior to the 2028 Los Angeles Olympics and Paralympics.

## **Discussion**

On May 18, 2026, Authority staff issued an Invitation for Bid (IFB) for the Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project Rehabilitation and Reliability Project with a period of performance of five hundred and twenty-five (525) construction days, from the date of the fully executed contract. The IFB was posted on the Authority's solicitation portal and advertised in publications in the five-member counties. Notices were sent directly to 1,338 firms registered in the Authority's online vendor database. Ninety-Five (95) firms downloaded the solicitation. Representatives from twenty (20) firms attended the virtual pre-bid meeting on June 3, 2026. A physical job walk was not conducted; however, the firms were provided a virtual job walk video. Three (3) bids were received on July 22, 2026, due date. DRS Contracting was found to be the lowest responsive and responsible bidder. Its bid amount was 13.6% below the Authority's Independent Cost Estimate (ICE), which was developed using the average bid pricing from recently awarded IFB's for similar projects. Based on recent bid pricing for similar project as basis of Authority's ICE, the lowest bid, which came under the Authority's ICE, was found to be fair and reasonable. Bids were evaluated based on the total base bid plus option.

| BIDDER                        | BID AMOUNT      |
|-------------------------------|-----------------|
| DRS CONTRACTING               | \$17,519,500.00 |
| BALFOUR BEATTY INFRASTRUCTURE | \$26,091,658.90 |
| CON-QUEST CONTRACTORS, INC.   | \$34,778,340.00 |
|                               |                 |
| INDEPENDENT COST ESTIMATE     | \$20,270,665.85 |

### **Budget Impact**

The amounts for this project have been approved in FY21 and FY23 capital budgets and funded by FY2020 Federal-State Partnership for State of Good Repair Grant Program using matching TIRCP funds granted by CalSTA through SCORE.

### **Next Steps**

Upon approval by the Board, Staff will execute Contract No. C3173-27 – Ventura Line and Antelope Valley Line Rehabilitation & Reliability Project Rehabilitation & Reliability Project with DRS Contracting, in an amount not-to-exceed \$19,271,450.00, and will issue a Notice to Proceed.

Prepared by: Sean Lopez, Railroad Civil Engineer I  
Sharon Williams, Sr. Contract & Compliance Administrator

Approved by: Justin Fornelli, Chief, Program Delivery

### **Attachment(s)**

[Presentation - Contract No. C3173-27](#)



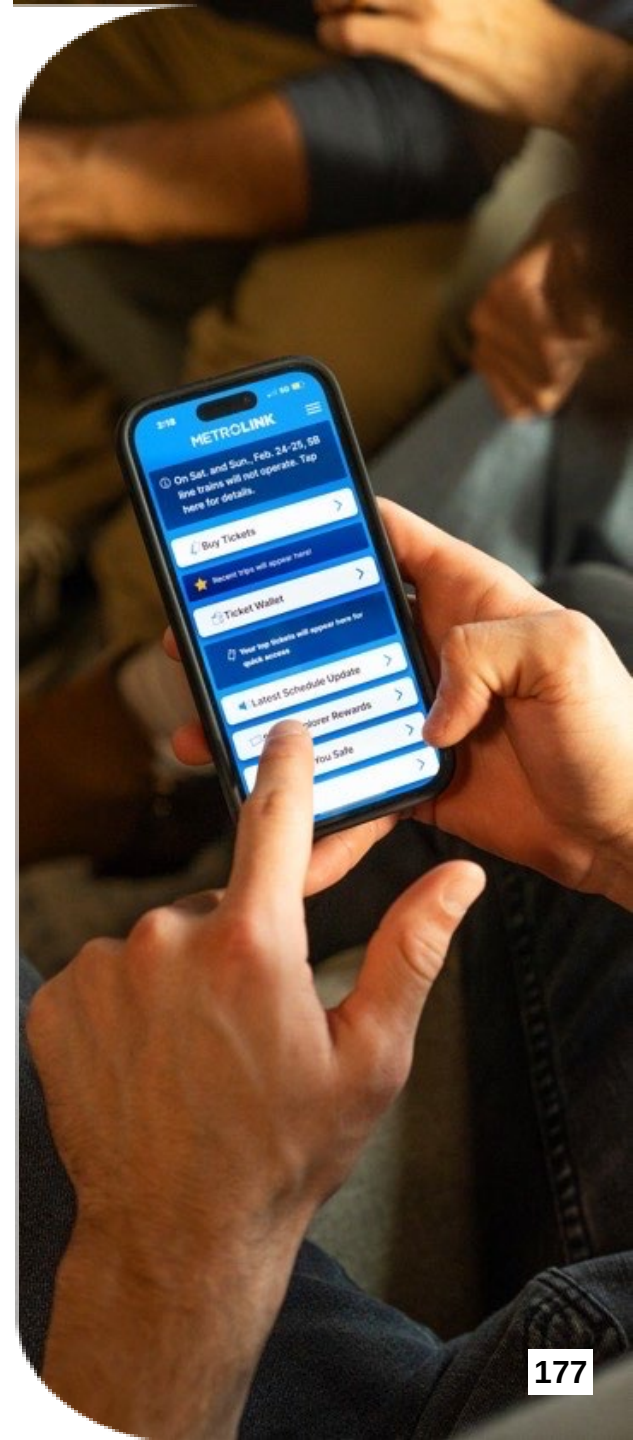
**METROLINK**

**Contract No. 3173-27 – Ventura Line & Antelope Valley Line  
Rehabilitation & Reliability Project**



# Background

- Contract No. C3173-27 will:
  - Rehabilitate and/or replace sections of track, structures, and Tunnel 26 infrastructure along various locations on the Ventura Subdivision.
  - Rehabilitate Tunnel 25 infrastructure on the Valley Subdivision.
- These improvements will enhance the safety and reliability of Metrolink's railway system and maintain our rail assets in a state of good repair.





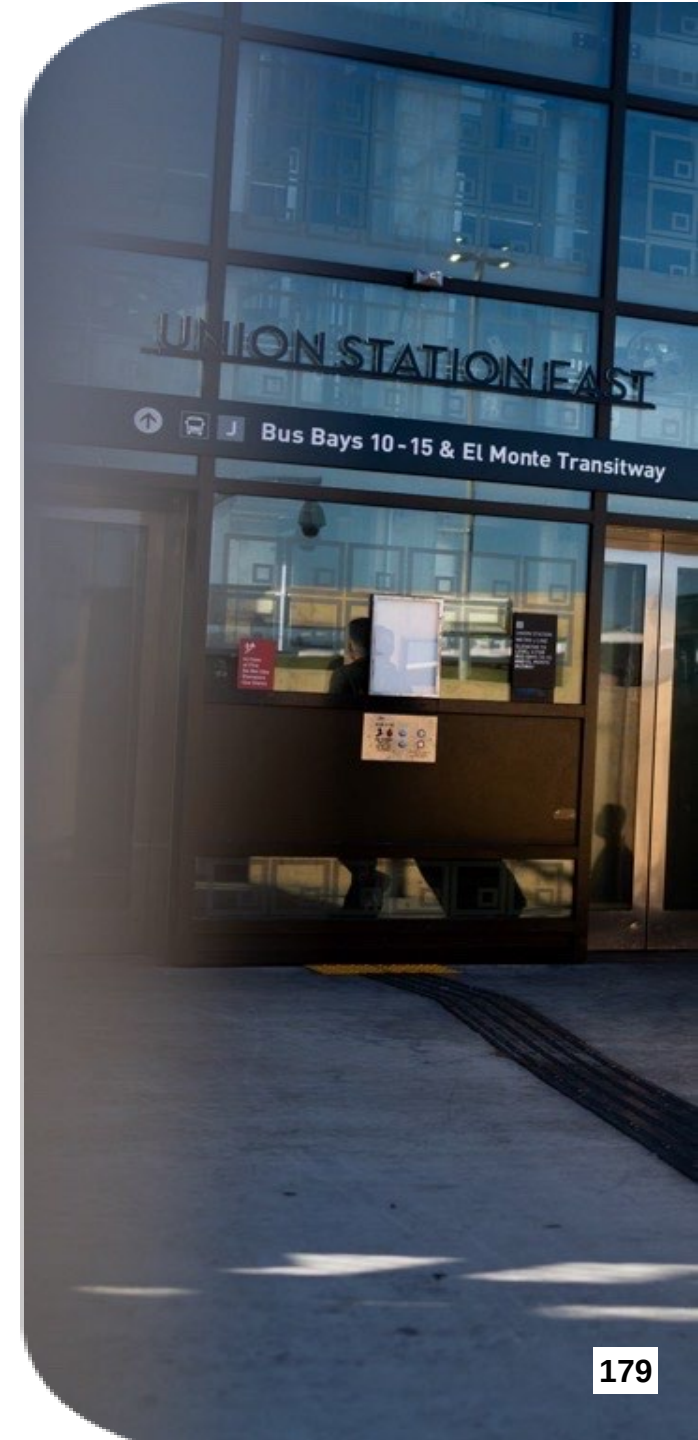
## Discussion

- Invitation for Bids released on May 18, 2026.
- Three bids received for Contract C3173-27.
- DRS Contracting was the lowest responsive and responsible bidder.



# Recommendation

- It is recommended that the Board authorize the CEO to:
  - Award Contract No.C3173-27 for Ventura Line & Antelope Valley Line Rehabilitation & Reliability Project to the lowest responsive and responsible bidder, DRS Contracting.
  - Award Contract C3173-27 for \$17,519,500 plus 10% contract contingency of \$1,751,950 for a total not-to-exceed amount of \$19,271,450.





**METROLINK**

Thank You.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-291-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Kevin Gray, Chief Technology Officer

**SUBJECT:** Contract No. SP504R-20 - Amendment No. 4 - Cash Collection Counting Services - Recommendation to Extend Contract Term and Increase Contract Authority - Sectran Security, Inc.

### **Issue**

Continuous cash collection and counting services are required for the Authority's Ticket Vending Machines (TVMs), and Ticket Office Machines (TOMs).

### **Recommendation**

It is recommended that the Board authorize the Chief Executive Officer to amend Contract No. SP504R-20 with Sectran Security, Inc. to:

1. Extend the contract period of performance for 12 months through December 31, 2027; and
2. Increase the current contract authority by \$365,000 from \$1,722,720 to a new not-to-exceed \$2,087,720.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Connecting and Leveraging Partnerships:** We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving. Continue building a trustworthy and transparent partnership with our vendor so that our processes and objectives are met. As a result, our cash collection, reporting, and day-to-day procedures will flow seamlessly.



## **Background**

Sectran Security Inc. (Sectran) is currently responsible for the cash collections services from our 143 Ticket Vending Machines (TVDs) systemwide, as well as our Ticket Office Machines (TOM) located at Union Station.

As this contract comes to an end on December 31, 2026 it is crucial that the Agency continues its partnerships with Sectran so that our cash collection services do not come to a halt. Staff reviewed and determined that extending the current contract by 12 months is the most practical solution to ensure uninterrupted cash collection and counting services.

## **Discussion**

Authority and Contractor entered into a Contract for Cash Collection Counting Services effective June 30, 2020, with a period of performance from June 30, 2020, until June 20, 2023, with single two-year options.

On April 24, 2023, the Authority amended the contract under Amendment No. 1 to extend the period of performance through June 30, 2025, and revised Exhibit 1 – Station Locations and Exhibit 2 – Metrolink System Map.

On May 19, 2025, the Authority amended the contract under Amendment No. 2 to extend the period of performance through December 31, 2025, without an increase in contract authority.

On December 19, 2025, the Authority amended the contract under Amendment No. 3 to increase contract authority by \$150,000 from \$1,572,720 to \$1,722,720 and extend the term by 12 months from December 31, 2025, to December 30, 2026.

## **Budget Impact**

The cost of the Cash Collection Services is included in the proposed FY27 Budget and is contingent upon its adoption by the Board of Directors.

## **Next Steps**

Upon Board approval, the Authority will amend the contract under Amendment No. 4 to extend the period of performance by 12 months from December 31, 2026, to December 31, 2027, and increase contract authority by \$365,000 from \$1,722,720 to a no-to-exceed \$2,087,720.

Prepared by:                      Alfredo Fernandez Delara, Product Manager  
                                            Arisa Hicks, Contract and Compliance Administrator

Approved by:                      Kevin Gray, Chief Technology Officer

**Attachment(s)**

Presentation - Contract No. SP504R-20 Cash Collection Counting Services





# METROLINK

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**Contract No. SP504R-20 – Cash Collection Counting Services  
– Extend Contract Term and Authority – Sectran Security, Inc.**

# Discussion

- Sectran Security Inc. is responsible for the cash collection services from our current 143 Ticket Vending Machines systemwide, as well as our Ticket Office Machines located at Union station.
- The Authority requires continued cash collection services as the current contract expires on December 31, 2026.
- As part of this contract extension, the Authority needs to increase contract authority to fund these services.



# Recommendation

Staff recommends that the Board authorize the CEO to amend Contract No. SP504R-20 (Amendment No. 4) to:

1. Extend the current period of performance to December 31, 2027; and
2. Increase contract authority by \$365,000 from \$1,722,720 to a new not-to-exceed total amount of \$2,087,720.





**METROLINK**

Thank you.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

ITEM ID: 2026-180-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Lisa Bahr, Chief Customer Experience Officer

SUBJECT: Fiscal Year 2026 Customer Experience Update

### **Issue**

Staff is updating the Board on Customer Experience campaigns and activities. These updates will be provided periodically throughout the year.

### **Recommendation**

Receive and file.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitments of:

- **Customers Are Our Business:** We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to bring them on board. This report includes performance metrics to increase transparency and accountability for the division's activities.
- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics, and streamlined governance, reducing reliance on subsidies while bringing our system into good repair and investing in the development of our employees.



## **Background**

The Metrolink Customer Experience (CX) division includes Market Research and Data Analytics, Marketing, Communications, Customer Relations, and CX Innovation & Partnerships. For FY26, the CX team's strategic pillars are to strengthen customer engagement and insights, prioritize customer experience and safety initiatives, and clearly communicate Metrolink's vision, brand, and value.

In FY26, staff have prepared a set of Key Performance Indicators to assess and track the performance of the Authority's Customer Experience program. The results of these metrics will be reported to the Board on a quarterly basis. The last KPI report was presented to the Board in December 2025.

## **Discussion**

In October 2025, we realigned the Customer Experience Division to strengthen our focus on the initiatives that matter most: growing ridership, increasing revenue and regional support, and delivering a more seamless customer experience. CX restructuring also enhanced the division's resilience by expanding cross-training opportunities, developing leadership capacity, and creating greater flexibility to meet evolving organizational needs.

This report introduces our Customer Experience Key Performance Indicators (KPIs), which will be reported quarterly to provide greater visibility of our progress and outcomes. It also highlights key accomplishments from Fiscal Year 2026 across Marketing, Communications, Customer Relations, and CX Innovation & Partnerships, while looking ahead to the priorities and opportunities that will shape our work in Fiscal Year 2027.

### **Market Research and Data Analytics**

Staff have identified a set of Key Performance Indicators to assess and track the performance of Metrolink's Customer Experience Program. Metrics include:

#### *New Mobile Accounts*

New mobile app registrations provide a direct measure of customer growth and reflect intent to ride.

#### *Mobile Adoption*

The share of ridership using mobile tickets reflects customer adoption of the mobile purchase channel. Increasing mobile ticket use supports the Authority's goal of reducing administrative burden while improving the user experience.

#### *Repeat Ridership*

Analysis of mobile app data allows staff to estimate how many first-time riders Metrolink ride again within 12 months of their first trip, helping to gauge trial-rider conversion.

#### *Corporate Partner Program (CPP) Revenue Growth*

Growth in CPP revenue is supported by frequent ridership and reflects the financial value of partnerships with participating schools and businesses.

#### *Net Promoter Score (NPS)*

NPS is a widely used measure of customer loyalty derived from surveys offered to customers after riding Metrolink.

FY26 and Q4 performance against these measures is summarized below.

- **New mobile accounts:** New mobile app registrations in FY26 were down 16% from the prior year. That rate improved sharply during the fourth quarter with a 22% increase following the start of the FIFA World Cup 2026 on June 11.
- **Mobile adoption:** Mobile tickets accounted for 64% of ridership in FY26, up from 60% a year earlier.
- **Repeat ridership:** Converting first-time riders into repeat customers remains an important opportunity for ridership growth. Analysis of riders tracked through FY26 found that a majority did not return to Metrolink within 12 months of their first trip. Among non-students, repeat ridership declined 12% year over year in FY26, although the decline moderated over the second half of the year, from -15% in Q2 to -13% in Q3 and -9% in Q4. With the World Cup bringing new customers to Metrolink and the continued cost of driving creating another reason to consider transit, there is significant potential to turn event-driven and price-sensitive riders into more frequent Metrolink users.
- **CPP revenue growth:** CPP revenue reached \$5.34 million in FY26, a 15% year-over-year increase, driven in part by continued growth in the Experience Metrolink program with IE Commuter. CPP represented 14% of total farebox revenue and 41% of Monthly Pass revenue. Experience Metrolink also earned three industry honors: the 2026 SCAG Sustainability Award, California Transportation Foundation Program of the Year Award, and Association for Commuter Transportation Outstanding Transportation Demand Management Strategy Award, recognizing its innovative approach to attracting new customers and encouraging regional rail travel.
- **NPS:** An After-Ride Survey, launched in FY26 to capture customers' experience in real time, recorded an NPS of 44.2 in Q4, up from 40.0 in Q3. Scores above 40 indicate strong customer loyalty. Customers cited improved reliability, cleanliness and fares as key contributors to a positive experience, while schedules remained a source of dissatisfaction.

Beyond the established KPIs, FY26 ridership grew 3.3% amid significant changes to fares and service, including the simplified fare pilot, discontinuation of free student fares, reliability issues and a mid-year service reduction. Growth accelerated in Q4, with ridership up 5.4% year over year and non-student ridership increasing by as much as 10%. Major events and higher driving costs helped fuel demand, as the FIFA World Cup 2026 and a 25% increase in gasoline prices since the start of hostilities with Iran brought new and infrequent riders to Metrolink.

Major events and promotions brought new and infrequent riders to Metrolink. During the World Cup, Metrolink operated 48 supplemental trains across 10 days of special-event service. Ridership during the five-week World Cup period increased 12% compared with the prior year. Weekend ridership increased by 26% over the six weekends of the World Cup compared to the preceding six weekends, rising from 101,761 to 128,273. Free-ride promotions for Earth Day and Bike Day further supported customer acquisition. At the same time, key fare products posted gains, with SoCal Explorer Day Pass sales increasing 13% and LA Zone Day Pass sales growing nearly 10% over the prior quarter.

Strong ridership growth did not eliminate persistent concerns around schedules and fares. A service reduction implemented in March generated significant negative feedback, which intensified after potential fare increases and further service reductions were announced. Together, schedule- and fare-related issues accounted for 65% of Q4 customer complaints.

Stronger on-time performance provided a positive counterpoint, contributing to higher customer satisfaction as total complaints declined 42% year over year.

Metrolink is attracting new riders but retaining them remains a challenge. Shaping how customers perceive Metrolink's convenience and value will be critical to turning recent event-driven gains into sustained ridership growth.

## **Marketing**

FY26 marked a significant departmental reorganization for Marketing that strengthened specialized capabilities and added a new strategic agency partner. Marketing focused on driving ridership and revenue by positioning Metrolink as Southern California's regional rail connector and making the system easier to understand and use.

Targeted campaigns delivered strong results in priority markets. San Bernardino Line ridership increased nearly 10% year-over-year, while Pomona-North boardings increased 37%. Arrow service marked a 17% increase in ticket sales during a promotional campaign period, demonstrating the value of focusing resources where they can directly support ridership and revenue growth.

Student ridership remained strong following the transition from fully subsidized fares to the 50% Student Discount. Despite the shift from free to paid travel, student boardings increased 34% from July to September 2025 compared with the prior three months. A winter and spring campaign generated a further 15% increase in student ticket sales. Mobility-4-All, Metrolink's low-income discount, remains an opportunity. Participation was affected by uncertainty surrounding public benefit programs and limited access to eligible audiences.

The team also supported the transition to Metrolink's restructured fares, driving awareness and sales of priority products, including the 5-Day Flex Pass and the new SoCal Day Pass and LA Zone Day Pass. Public engagement generated more than 1,500 comments and strong customer ratings, contributing to Board adoption of the permanent fare structure.

In FY27, expanding partnerships with trusted organizations, including the Department of Public Social Services and LA Metro, will strengthen outreach and program education. Metrolink will also continue to focus on acquiring new riders, retaining existing customers and recapturing lapsed riders to drive ridership, revenue and long-term customer value.

## **CX Innovation and Partnerships**

The October 2025 Customer Experience reorganization established CX Innovation & Partnerships to help grow ridership by developing and testing solutions that address customer pain points and make Metrolink a more attractive travel option. The team was also charged with expanding strategic partnerships and developing sustainable non-fare revenue sources, creating a dedicated function for an increasingly important area of agency growth.

One of the team's first initiatives was a Contactless Payments pilot aimed at making Metrolink easier and more convenient to use. Since launching June 10 on the San Bernardino Line and Arrow service, the pilot has recorded 1,594 tap-ins, with 96.7% of users riding only once, consistent with expectations that contactless payments would appeal to new and infrequent customers. About two-thirds of usage occurred during the FIFA World Cup, while mobile wallets have accounted for roughly three in five taps. Early findings are informing improvements to validator visibility and customer education.

Partnership activity also delivered measurable revenue growth while laying the groundwork for future opportunities. The team generated \$229,084 in advertising, sponsorship, licensing, special event and other partnership revenue, a 36% year-over-year increase. A systemwide valuation of Metrolink assets helped shape a long-term sponsorship strategy encompassing multi-year agreements, naming rights, advertising assets and innovative brand partnerships. Collaborations with regional events, destinations and entertainment properties introduced Metrolink to new audiences, highlighted by a promotional campaign and press junket at Los Angeles Union Station for Bleecker Street's feature film, *STOP! THAT! TRAIN!*

A new Partner Portal moved forward in FY26, creating infrastructure to support the Corporate Partner Program as well as other event, student and revenue opportunities over time. In FY27, Metrolink will also launch a more structured advertising and sponsorship program designed to diversify non-fare revenue and create more a sustainable revenue pipeline, with the goal of generating over half a million dollars in additional annual revenue across the portfolio.

### **Communications**

As part of the broader CX restructure, Public Affairs and Community Relations were integrated within Communications, bringing greater coordination to strategic storytelling, media relations and stakeholder engagement. The more unified structure expanded Metrolink's visibility, reach and regional connections, helping advance major agency priorities.

Over the course of the year, the team strengthened relationships with station cities, achieved better synchronization around FIFA World Cup 2026 planning, reimagined an annual by-line engagement program with a FY26 focus on the Riverside Line, improved communication on capital projects and forged new connections with local schools and students. Metrolink also moved its bimonthly stakeholder newsletter, *The Link*, from email distribution to the LinkedIn social media platform, where it grew to 4,865 subscribers by year-end, representing 28.2% of Metrolink's overall LinkedIn following.

Tactical media outreach also supported major CX initiatives, including simplified fares, contactless payments, safety, ridership growth and World Cup service. A national NPR story featuring a Metrolink subject-matter expert was picked up by the Associated Press, earning nearly 200 media mentions. World Cup communications generated another 186 media mentions, including an in-depth Telemundo feature, resulting in a potential audience of more than 400 million. The agency's annual free ride days also saw strong year-over-year growth, with media reach increasing 145% and advertising-equivalent value increasing 128%. Recognition from industry publications further enhanced Metrolink's reputation and highlighted the agency's work and leadership.

Collectively, this work elevated Metrolink's profile and reinforced the agency's value across Southern California. This progress provides valuable momentum for FY27 and the growing range of opportunities ahead, as Metrolink continues to improve the customer experience, advance major capital investments and prepare the region for the 2028 Olympic and Paralympic Games.

### **Customer Relations**

FY26 brought significant transformation, with team members from Customer Relations and Metrolink's Communications Desk unified under a new customer support structure. This change established clearer accountability and closer collaboration, improving how Metrolink

engages with customers, particularly during disruptions. The team complemented the reorganization with technological advancements and better cross-departmental coordination, supporting a more seamless customer experience and the more timely flow of information.

Key accomplishments included:

- **Customer Support operations:** A comprehensive assessment of the Customer Relations, Communications Desk, Call Center and LA Union Station support functions clarified roles and streamlined workflows across customer-facing teams.
- **LA Union Station enhancements:** Customer Relations and Operations worked together to reduce unnecessary track changes at LA Union Station by approximately 50%. New digital signage was also installed to make train, track and service information more visible to customers.
- **Real-time customer communications:** Metrolink Alerts grew to 18,176 subscribers, while expanded SMS capacity allowed the agency to communicate more effectively during periods of increased service disruptions. The program was recognized by APTA with a Grand AdWheel Award for 2026 in the category of Best Marketing and Communications Educational Initiative.
- **Major events:** Led customer support planning for FIFA World Cup service and maintained frontline readiness in case of major disruptions or service changes.
- **Technology improvements:** Modernization of Metrolink's Salesforce platform began in FY26, with a focus on improving case intake, routing, reporting and automation. The team also refined real-time information channels to support more timely and accurate customer communications in preparation for the 2028 Olympics and Paralympics.

Building on the progress made this year, several initiatives will move from planning to implementation in FY27. Upcoming priorities include transitioning to a new Call Center provider, updating the refund process, expanding alternate transportation options during major disruptions, implementing ADA study recommendations, enhancing security efforts, and exploring a field support program. This work will further evolve the customer support model, equipping team members to better anticipate customer needs, manage disruptions effectively, resolve concerns when they arise and deliver a more consistent experience throughout the customer journey.

### **Next Steps**

Staff will continue to monitor Key Performance Indicators and report back to the Board next quarter with the results on ridership, account registrations, mobile ticketing adoption, repeat ridership, CPP revenue, and changes in Net Promoter Scores. Customer Experience efforts will continue to focus on retaining current ridership, converting new customers, strengthening regional and community support, and driving revenue through partnerships and advertising.



Prepared by: Lisa Bahr, Chief Customer Experience Officer  
Henning Eichler, Senior Manager, Market Insights & Analytics  
Jose Hernandez, Senior Manager, Marketing & Digital Programs  
Mary Riemer, Director, CX Innovation & Partnerships  
Amber Moyers, Manager, Partnerships  
Meredith Yeoman, Director, Communications  
Sabrina Davis, Director, Customer Experience

Approved by: Lisa Bahr, Chief Customer Experience Officer

**Attachment(s)**

[Presentation - FY26 Customer Experience Update](#)

## **FY26 Customer Experience Update**

*Receive and file.*

# CX Departments



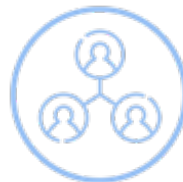
Sabrina Davis

**Customer Service**



Henning Eichler

**Market Research &  
Data Analytics**



Meredith Yeoman

**Comms & Public Affairs**

**Innovation & Partnerships**

Mary Riemer

Jose Hernandez

**Marketing**

## October 2025 Restructure:

- Creation of CX Innovation and Partnerships department
- Consolidation of Public Affairs and Community Relations under Communications department
- Transition of Customer Communications Desk to Customer Service department
- Growing Market Research and Data Analytics capability by transitioning customer relations manager to new department

# FY26 Update

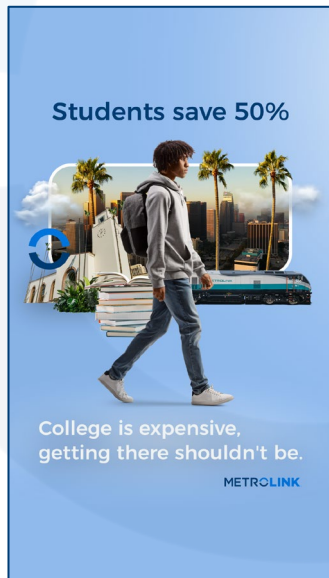
METROLINK





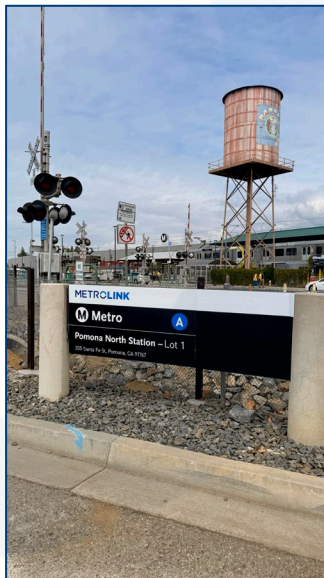
# Marketing Campaign Performance

## Students



- **+34%** student boardings compared to prior three months
- **12,699** new student mobile accounts in FY26

## Pomona-North Metro Connection



- **+34%** Pomona-North boardings compared to campaign period prior year

## World Cup



- **+12%** boardings YOY
- **+26%** weekend boardings
- **+22%** new mobile app customers

## Free Ride Days



- **23,000** average boardings per Free Ride Day
- Over **91,000** boardings across four FY26 campaigns.

## Fare Restructure and Promotions



- **+17%** increase in Arrow boardings
- **+14%** ticket revenue compared to FY25



# CX Innovation & Partnerships



## Holiday Express Train

- 10 cash, 3 in-kind sponsors, 65 community partners
- **+124% sponsorship revenue YoY**



## Advertising

- **\$229K** advertising, sponsorship, licensing, special events & partnerships
- **+36% YoY**



## Corporate Partner Program

- **\$5.33M** CPP ticket revenue
- **+15% YoY**



# Contactless Payment Pilot

Early customer adoption & behavior insights | June 10–August 20, 2026

1,594

tap-ins

96.7%

one-time riders

61%

mobile phone

67%

during FIFA WC

## CUSTOMER BEHAVIOR

96.7%

### One-time riders

The pilot is validating the hypothesis that contactless payments primarily attract new and infrequent riders.

## PAYMENT METHOD

61% Mobile

35% Physical card

## WHERE CUSTOMERS ARE TAPPING

L.A. Union Station

83  
4

El Monte

76

Rancho Cucamonga

73

L.A. Union Station represents 52% of all pilot tap-ins.

1,064

tap-ins during FIFA World Cup

June 11–July 19 • ~67% of total

## CONTACTLESS PAYMENTS

Pilot | San Bernardino & Arrow Lines

Pilot insight: New & recreational riders are responding; tap-in/tap-out awareness remains the key adoption opportunity.

# Communications



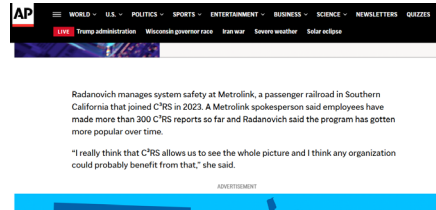
## Public Affairs & Community Relations

- Delivered station city Pre-FIFA World Cup outreach program
- Led focused stakeholder tours (Schools, Safety, & SCORE)

## Public Relations



**+145%** YoY increase in audience reach and  
**+128%** increase in ad-equivalent value for annual free-ride day coverage



**~200** earned media mentions for national NPR story featuring Metrolink team member, which was also picked up by the Associated Press



**474M** in audience reach across 186 FIFA World Cup 2026-related earned media mentions, including a prominent Telemundo feature

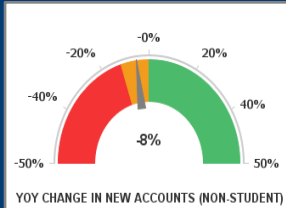
A young boy with dark hair, wearing a denim shirt, is smiling broadly while holding several Metrolink cards. He is standing next to a window, and the background shows a train interior. The Metrolink logo is visible in the bottom left corner of the image.

# Customer Communications & **Support**

- Improved coordination between customer facing teams
- Metrolink Alerts – real time customer communications
- LA Union Station enhancements
  - New digital signage installed to make train, track and service information more visible to customers.
  - Customer Relations and Operations worked together to reduce unnecessary track changes at LAUS by 50%.
- Major events

# CX KPI Results FY26 Q4

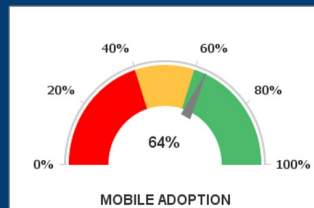
## New Accounts



- New accounts registrations are down 8% from a year ago.
- A 22% jump in new registrations during the World Cup and higher gas prices in June 2026 helped the numbers to rebound in Q4.

Source: mobile account

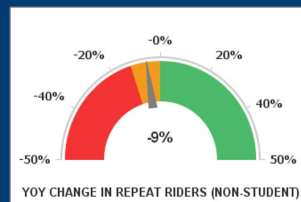
## Mobile Adoption



- Mobile tickets accounted for 64% of ridership in Q4, up from 61% a year ago.
- Students, younger, and more frequent riders are most likely to use mobile tickets.
- Trending upwards since last year.

Source: ticket sales data

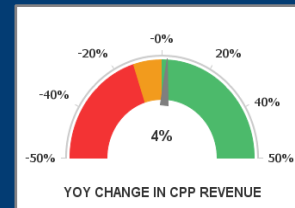
## Repeat Ridership



- Repeat ridership (riders who take more than one trip in a year) is down 9% from a year ago.
- Repeat ridership has rebounded in Q4 following a year-long downward trend.

Source: mobile non-student ridership

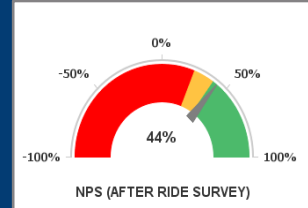
## CPP Revenue



- CPP revenue has increased by 4% since last year.
- It reflects the success in adding new partnerships, including the IE Commuter pass subsidy program.

Source: ticket sales data

## NPS



- Net Promoter Score (NPS), a customer loyalty metric, improved to 44%.
- That higher score reflects improved service reliability in Q4, following a steep decline in NPS in March 2026.

Source: After-Ride survey (4,079 respondents). Scores over 40% reflect strong performance



# FY27 Look Ahead

## Ridership & Revenue

METROLINK





# Marketing Focus: **Acquire. Retain. Recapture.**

## **ACQUIRE**

Attract new riders to the system

- Awareness → first trip



## **RETAIN**

Increase travel frequency & loyalty

- Value → repeat trips



## **RECAPTURE**

Re-engage lapsed customers

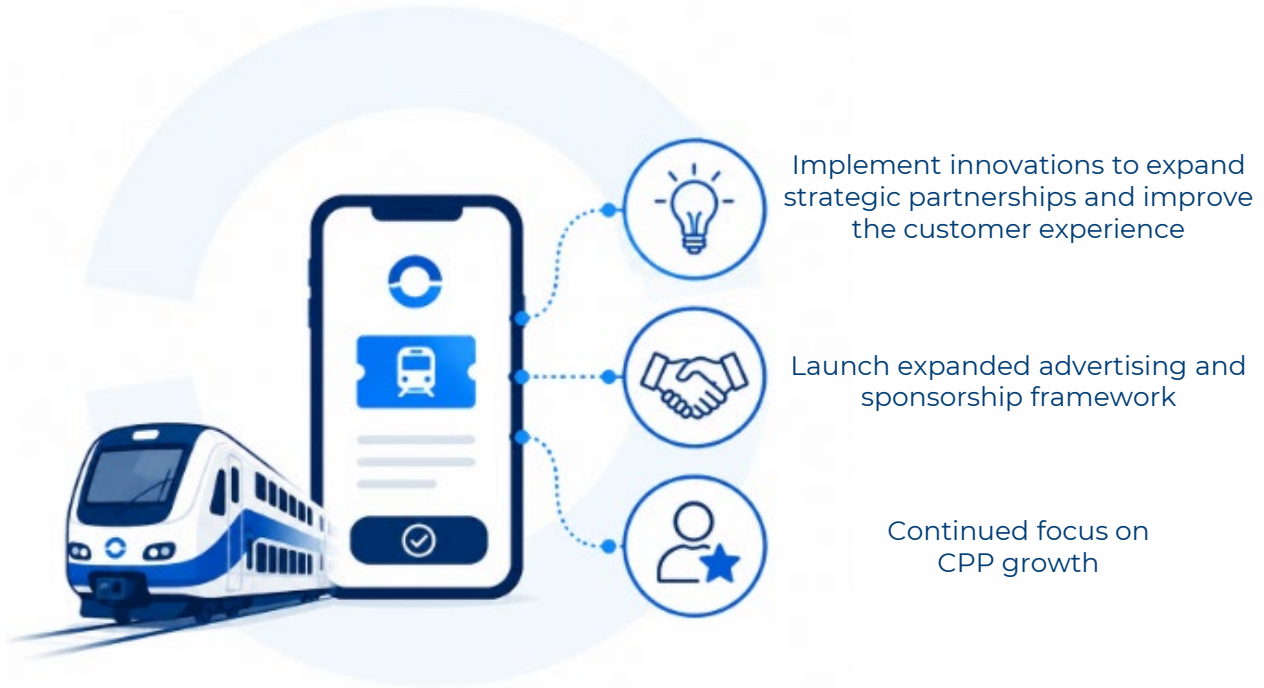
- Relevance → return trip



**Ridership & Revenue Growth**

# CX Innovation & Partnerships

Scale Revenue and Partner Experience



**REVENUE GOAL: 10% YoY growth across the portfolio**  
**≈ \$556K in additional annual revenue** based on FY26 performance





**METROLINK**

Thank you.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

ITEM ID: 2025-267-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Paul Hubler, Chief Strategy Officer

SUBJECT: September Legislative Update

### Issue

Staff provides a regular monthly update on current legislative affairs.

### Recommendation

Receive and file.

### Strategic Commitment

This report aligns with the Strategic Business Plan commitments of:

- **Connecting and Leveraging Partnerships:** We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving. This commitment is met by sharing news, information and the Authority's legislative priorities with elected officials.
- **Advancing Key Regional Goals:** We will grow the role of regional rail in addressing climate change, air quality, and other pressing issues by advancing toward zero emissions, making rail a compelling alternative to single-occupant automobiles and advancing equity-focused opportunities for all communities throughout Southern California. This commitment is met by encouraging federal, state and local support for Authority priorities.



## **Background**

Staff continues to engage with state and federal stakeholders concerning Metrolink service and relevant policy initiatives.

## **Discussion**

### **State**

#### *State Lawmakers Reach Agreement on Budget Trailer Bills, Including Cap-and-Invest Expenditures*

Earlier this year, the California Air Resources Board (CARB) made changes to the state's Cap-and-Invest program that increased allowances allocated for utility ratepayer relief and industrial support. These changes raised concerns that future revenues available through the Greenhouse Gas Reduction Fund (GGRF) could be significantly lower, potentially resulting in substantial reductions to programs that support transit capital and operations.

Then on June 29, the Legislature approved the FY2026-27 state budget and accompanying trailer bills. However, the budget deferred action on an updated GGRF expenditure plan until after the Legislature reconvened in August.

As the Legislature and Governor negotiated the remaining budget trailer bills, a coalition of more than 80 transit, transportation, affordable housing, labor, business, environmental and disability rights groups, led by the California Transit Association (CTA), advocated for preserving funding for critical transit investments. Specifically, the coalition urged the Legislature to maintain commitments to fund the Transit and Intercity Rail Capital Program (TIRCP) and the Low Carbon Transit Operations Program (LCTOP), which Metrolink relies on for capital and operations support, respectively.

The final agreement reached between the Legislature and the Governor was released at the end of August. The Budget Bill Jr. (SB 113/AB 113) provides \$230 million in funding for SB 125 – honoring in full the funding amount to be provided via the Zero-Emission Transit Capital Program. However, funding for TIRCP and LCTOP remains below the levels called for in the GGRF Expenditure Plan agreed to last year by the Legislature. SB 840 (Limon) called for approximately \$400 million for TIRCP and \$200 million for LCTOP. Under the Budget Bill Jr., TIRCP will receive \$95 million, while LCTOP funding is set at \$48 million. In summary, the final agreement provides additional funding for transit programs, but falls short of the funding levels previously contemplated for TIRCP and LCTOP. The changes to the Cap-and-Invest program adopted by CARB earlier this year and supported by the Administration, essentially zeroed out funding to these Tier 3 programs. The budget bill funding reflects a compromise between the Administration and the Legislature to provide more modest but still meaningful levels of additional transit funding during a difficult budget year.

#### *Metrolink State Operations Assistance Request*

Following direct advocacy by Metrolink CEO and government relations staff, 11 legislators, led by Assemblymember Juan Carrillo, sent a joint letter on August 12 to Governor Newsom and state legislative budget committee leadership urging approval of Metrolink's \$35 million FY27 operating funding request in state budget trailer legislation. Representing communities across Metrolink's service area, the signatories included Assemblymembers Juan Carrillo, Leticia

Castillo, Laurie Davies, Jeff Gonzalez, Pilar Schiavo and Rick Chavez Zbur, and Senators Ben Allen, Henry Stern, Tony Strickland, Tom Umberg and Suzette Martinez Valladares.

The letter emphasized that without additional resources, Metrolink would be required to reduce passenger rail service by at least 20% below February 2026 levels beginning in October 2026. It also highlighted steps Metrolink is taking to address the funding shortfall, including reductions to non-service schedule costs and a fare increase scheduled to take effect in October. Unfortunately, the Metrolink operations request was not included in the budget bill agreement reached between the Assembly and Senate in late August.

Securing a direct operations funding set-aside for an individual operator was a worthwhile undertaking, if unprecedented in the transit sector in this year's budget. Metrolink will continue to work with the California Transit Association (CTA) and partner stakeholders to secure a dedicated operations funding source in future legislation. Dedicated state funding is necessary to supplement local sources to sustainably operate regional passenger rail service in Southern California and across the state.

#### *Senate LOSSAN Subcommittee Examines SB 1098 Report Recommendations*

In September 2024, Governor Newsom signed SB 1098, which directed the California State Transportation Agency (CalSTA) to facilitate coordination among LOSSAN Corridor stakeholders and develop consensus recommendations to improve corridor performance. The final report was submitted to the Legislature on August 5 and, among other things, recommended establishing a corridor-wide asset management and fleet strategy and expanding opportunities in state grant programs, where appropriate, for funding for state of good repair investments.

On August 12, the Senate Transportation Subcommittee on LOSSAN Rail Corridor Resiliency held an informational hearing to review the SB 1098 report. The hearing featured participation from CalSTA, the Coastal Commission, and the Mineta Institute, followed by a second panel of perspectives from the leaders of Metrolink, NCTD, and the LOSSAN Rail Corridor Agency. In his remarks, Metrolink CEO Darren Kettle affirmed support for the report's recommendations but emphasized that successful implementation depends on robust and sustainable operating funding.

#### *Legislature Passes SB 741 to Improve LCTOP Efficiency*

The California Legislature concluded the 2025–26 session with a flurry of activity in late August, including passage of Metrolink-supported SB 741 (Blakespear), which increases flexibility within LCTOP. LCTOP is a vital and flexible source of formula-based funding for Metrolink. In recent years, we have used these funds to provide discounted fares for students and for low-income riders with an EBT card.

With LCTOP revenues forecast to be significantly lower this year, the additional flexibility provided by SB 741 will be especially valuable to Metrolink. The bill expands eligible uses to include transit maintenance and eliminates redundant emissions-demonstration requirements for continuing programs. It also clarifies that agencies may continue funding previously approved services without having to restart the application process. Together, these changes will allow Metrolink to use LCTOP funds more efficiently to sustain critical operations and continue delivering meaningful mobility and environmental benefits across the region. Metrolink was pleased to support SB 741 and has sent a letter to Governor Newsom urging him to sign the legislation into law.

For a complete list of action on bills Metrolink was tracking, please refer to our bill tracker (Appendix A).

## **Federal**

### *Metrolink Hosts Congressional Members and Offices During August Recess*

Metrolink staff took advantage of the Congressional in-district work period this summer to welcome elected officials and staff for tours and meetings throughout Southern California.

On August 20, staff hosted Congressman George Whitesides (D-Palmdale), Santa Clarita Mayor Pro Tem Patsy Ayala, and Councilwoman Marsha McLean for a tour of the Antelope Valley Line between the Newhall and Santa Clarita stations. The tour highlighted customer information system (CIS) display upgrades at the Newhall and Palmdale stations, which will be funded in part by a \$250,000 congressional earmark secured by Congressman Whitesides.

Staff also met with policy staff from Congressman Pete Aguilar's (D-San Bernardino) and Senator Alex Padilla's (D-CA) offices to discuss progress on San Bernardino Line projects, including projects partially funded through appropriations in the FY 2026 Transportation, Housing and Urban Development bill to support transportation needs associated with the LA28 Olympic and Paralympic Games. The meetings provided an opportunity to recap lessons learned from the 2026 World Cup and discuss planning and preparations for the 2028 Games.

Across these engagements, Metrolink staff emphasized the importance of continued federal investment in commuter and regional rail to support infrastructure improvements, service, and major regional events.

### *Congress Postpones Action on Appropriations & Surface Transportation Reauthorization*

The House and Senate passed a short-term continuing resolution (CR) to fund the federal government and extend the current surface transportation authorization through December 11, 2026. The CR provides lawmakers with additional time to negotiate and finalize fiscal year 2027 appropriations, which would normally take effect October 1, while also allowing more time to develop and consider successor multi-year transportation program legislation to the Infrastructure Investment and Jobs Act (IIJA).

The CR extends Highway Trust Fund authority through December 11, but it does not extend the advance appropriations provided under the IIJA. As a result, many discretionary grant programs that received increased funding in the last five years are currently unfunded or underfunded. This creates additional uncertainty around the availability of federal discretionary funding for transit and rail projects. Metrolink staff continue to advocate for increased funding and strategic policy changes in reauthorization, as outlined in the Board-approved 2026 Legislative Program.

### *Increased Passenger Rail Liability Cap Announced*

On August 5, the U.S. Department of Transportation published an increase to the required amount of excess liability insurance a commuter rail agency is required to hold. The limit, which is adjusted roughly every five years, will increase from approximately \$323 million to \$402 million, effective September 4, 2026.

Current law gives commuter rail agencies just 30 days to procure excess insurance after the cap is modified. Metrolink joins its peer agencies in a Commuter Rail Coalition advocacy effort to extend the notification period associated with announcing rail cap liability increases to 365 days or more. In the instance of the August 5 increase, the Metrolink Board and staff successfully anticipated the new cap amount and increased Metrolink's operating general liability insurance coverage to \$402 million in June. As a result, Metrolink's coverage is aligned with the new federal liability limit.

*Immediate Utilization of Olympics Funding Helps Make the Case for More Federal Support*

Metrolink staff and stakeholders continue to advocate for federal support for transportation agencies charged with delivering spectators and workforce to the 2028 Olympic and Paralympic Games. The FY27 House Transportation-HUD bill, which passed out of committee in May, includes \$875 million for transit-related operations and capital improvements, but faces uncertain prospects in the Senate.

As part of last year's H.R. 7148, the Consolidated Appropriations Act of 2026, \$94.3 million was available for transit agencies supporting the 2028 Olympics. Metrolink received a share totaling approximately \$17 million. Metrolink immediately put much of this financial support toward a construction contract awarded for the Rancho Cucamonga and Marengo siding extension projects. This action demonstrates our agency is ready put to immediate use financial assistance from Washington for the LA28 Games, a message we will carry forward as the FY27 THUD bill is advanced.

Prepared by: Jeffrey Dunn, Director, Government and Community Relations  
Anna Denecke, Senior Manager, Government Relations  
Julie Nieto, Management Analyst II

Approved by: Paul Hubler, Chief Strategy Officer

**Attachment(s)**

[Appendix A - September 2026 Bill Matrix](#)  
[Presentation - September Legislative Update](#)

## Appendix A: Bill Matrix

| Bill Number                                                                                                                                                                                                                                                   | Bill Status                                                                                                                                                                   | Action  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>State</b>                                                                                                                                                                                                                                                  |                                                                                                                                                                               |         |
| <b>CA Assembly</b>                                                                                                                                                                                                                                            |                                                                                                                                                                               |         |
| AB 110 (Gabriel): An act to amend the Budget Act of 2026 by amending Section 39.00 of that act, relating to the state budget, and making an appropriation therefor, to take effect immediately, budget bill.                                                  | 8/6/26: Ordered to inactive file at the request of Senator Laird.                                                                                                             | Monitor |
| AB 122 (Committee on Budget) Taxation. This bill is a revenue trailer bill for the 2026-27 Budget. This bill contains various statutory changes necessary to implement the Budget Act of 2026.                                                                | 8/6/26: Ordered to inactive file at the request of Senator Laird.                                                                                                             | Monitor |
| AB 125 (Committee on Budget) Medi-Cal: managed care organization provider tax. This bill is a revenue trailer bill for the 2026-27 Budget. This bill contains various statutory changes necessary to implement the Budget Act of 2026.                        | 8/6/26: Ordered to inactive file at the request of Senator Laird.                                                                                                             | Monitor |
| AB 176 (Committee on Budget) Taxation. This bill is the revenue trailer bill for the 2026-27 Budget. This bill contains various statutory changes necessary to implement the Budget Act of 2026.                                                              | 6/12/26: From committee chair, with author's amendments: Amend, and re-refer to committee. Read second time, amended, and re-referred to Committee on Budget & Fiscal Review. | Monitor |
| AB 259 (Rubio): Would extend a sunset by four years to 2030 on a Brown Act provision that allows local government board members to remotely participate in meetings under certain, limited conditions.                                                        | 6/27/25: In committee: Hearing postponed by committee.                                                                                                                        | Monitor |
| AB 810 (Irwin): Would expand on existing law to require special districts, joint powers authorities, or other political subdivisions to maintain an internet website with a ".gov" or ".ca.gov" domain. Special districts, joint powers authorities, or other | 2/02/26: From committee: Filed with the Chief Clerk pursuant to Joint Rule 56.                                                                                                | Monitor |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                            |         |
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| political subdivisions would have no later than January 1, 2031.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                            |         |
| AB 1421 (Wilson): Existing law requires the Chair of the California Transportation Commission to create a Road Usage Charge Technical Advisory Committee in consultation with the Secretary of Transportation to guide the development and evaluation of a pilot program assessing the potential for mileage-based revenue collection as an alternative to the gas tax system. Existing law additionally requires the Transportation Agency, in consultation with the commission, to implement the pilot program, as specified. This bill would extend the operation of the above-described provisions until January 1, 2035.                                                                                                                                                                                                                                        | 1/29/26: In Senate. Read first time. To Committee on Rules for assignment. | Monitor |
| AB 1855 (J. Gonzalez): CEQA, until January 1, 2040, exempts from its requirements certain projects for the improvement, institution, or increase of passenger rail service, including the maintenance, construction, or rehabilitation of stations, terminals, or existing operations facilities, which will be exclusively used by zero-emission trains or certified Tier 4 or cleaner rolling stock or locomotives. This bill would instead eliminate the condition that the public project be exclusively used by zero-emission trains or certified Tier 4 or cleaner rolling stock or locomotives, thereby expanding the scope of the exemption. The bill would require, for purposes of the exemption, the mainline rail of the project, instead of the whole project, to be located entirely within an existing right-of-way or existing highway right-of-way. | 2/23/26: Referred to the committee on Natural Resources.                   | Support |
| AB 1941 (González): Organized metal theft. This bill would prohibit organized metal theft, described as acting in concert with one or more persons to steal metal materials from one or more of specified materials and items with the intent to sell,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8/31/26: Enrolled and presented to the Governor at 4 p.m.                  | Monitor |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                       |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------|
| exchange, or return those metal materials for value, acting in concert with 2 or more persons to receive, purchase, or possess those metal materials knowing or believing it to have been stolen, acting as an agent of another to steal those metal materials as part of an organized plan to commit theft, or recruiting, coordinating, organizing, supervising, directing, managing, or financing another to undertake acts of theft of metal. The bill would make a violation of organized metal theft punishable as either a misdemeanor or a felony. The bill would make related findings and declarations and state the intent of the Legislature. |                                                                       |         |
| AB 2074 (Haney): Regional transit hub districts: downtown housing developments. This bill would, by July 1, 2027, require major transit cities to designate one or more regional transit hub districts and prescribe requirements for those districts, including requiring that a district make a downtown housing development an allowable use, as specified. The bill would establish the Downtown Revitalization Loan Fund and continuously appropriate moneys in the fund to the California Housing Finance Agency for the purpose of making loans to applicants to develop downtown housing developments, as specified.                              | 8/30/26: Senate amendments concurred in. To Engrossing and Enrolling. | Monitor |
| AB 2415 (Hoover): Transit-oriented housing developments: alternative plans. Existing law prescribes requirements for these plans, including requiring that the plan not reduce the capacity in any transit-oriented development zone in total units or residential floor area by more than 50%. This bill would provide that a transit-oriented development alternative plan may reduce the capacity in up to one transit-oriented development zone in total units or residential floor area by more than 50% if certain requirements are met.                                                                                                            | 8/19/26: In Assembly. Concurrence in Senate amendments pending.       | Monitor |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                        |         |
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| AB 2576 (Harabedian): Transit-oriented development. Existing law specifies that, beginning on January 1, 2027, a local government that denies a housing development project meeting the requirements referenced above that is located in a high-resource area is presumed to be in violation of specified law and immediately liable for specified penalties. This bill would delay each of those dates, and certain related dates, by one year. The bill would also increase the population threshold for certain requirements to apply to cities, as described above, from 35,000 to 40,000.                                        | 8/27/26: Enrolled and presented to the Governor at 4 p.m.              | Monitor |
| <b>CA Senate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                        |         |
| SB 220 (Allen): Would expand the Los Angeles County Metropolitan Transportation Authority Board of Directors to 18 members, from the current 14 members, by adding the County Executive of the County of Los Angeles and three public members appointed by the County Executive.                                                                                                                                                                                                                                                                                                                                                      | 2/02/26: Returned to Secretary of Senate pursuant to Joint Rule 62(a). | Monitor |
| SB 445 (Wilson): This bill would enact the Sustainable Transportation Project Delivery Reform Act. The bill would authorize the secretary to grant a waiver to a local agency, as defined, that is seeking to design and construct a sustainable transportation project, as defined, from any standards, criteria, specifications, requirements, or other conditions of a third party, as defined, applicable to the sustainable transportation project if the secretary determines that granting the waiver will assist the local agency in delivering the sustainable transportation project in a cost-efficient and timely manner. | 8/29/25: August 29 hearing: Held in committee and under submission.    | Monitor |

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| SB 545 (Cortese): Would commission a study on the extraordinary commercial and residential economic development opportunities along the California High Speed Rail corridor focusing on increased land value, development incentives and public-private partnerships from Los Angeles to San Francisco.                                                                                                                                                                                                                                                                                       | 8/29/25: August 29 hearing: Held in committee and under submission.                                | Monitor |
| SB 667 (Archuleta): Report. This bill would require the commission, on or before July 1, 2029, to review the list of railroad sites and, in the annual report, to include an evaluation of each site on the list and determine whether changes in conditions, operations, or safety data warrant the removal, modification, or addition of any site.                                                                                                                                                                                                                                          | 9/02/26: Enrolled and presented to the Governor at 3 p.m.                                          | Monitor |
| SB 677 (Wiener): This bill would revise the definition of “high-frequency commuter rail” to instead mean a public commuter or intercity rail station with a total of at least 48 passenger trains on average per weekday across all directions, not including temporary service changes of less than one month or unplanned disruptions, and not meeting the standard for very high frequency commuter rail, at any point in the past three years. By increasing the duties of local officials, and by expanding the crime of perjury, this bill would impose a state-mandated local program. | 8/30/26: Assembly amendments concurred in. (Ayes 31. Noes 0.) Ordered to engrossing and enrolling. | Monitor |
| SB 741 (Blakespear): Low Carbon Transit Operations Program.<br>The bill would revise and recast the Low Carbon Transit Operations Program (LCTOP); removes the Caltrans guideline adoption requirement; restricts eligible expenditures to bus, rail, or ferry service maintenance or expansion, fare subsidies, and network and fare integration technology improvements; and eliminates the disadvantaged community expenditure requirement.                                                                                                                                                | 8/30/26: Assembly amendments concurred in. (Ayes 40. Noes 0.) Ordered to engrossing and enrolling. | Support |
| SB 935 (Choi): Existing law authorizes a local agency, as defined, with approval of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 7/16/26: Chaptered by Secretary of State.                                                          | Monitor |

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| its governing body, to procure design-build contracts for public works projects in excess of \$1,000,000, awarding the contract either to the lowest bid or the best value. Existing law, among other requirements for the design-build procurement process, requires specified information submitted by a design-build entity to be certified under penalty of perjury. These provisions authorizing local agencies to use the design-build procurement process are repealed on January 1, 2031. This bill would repeal the above-described January 1, 2031, repeal date, thereby extending the operation of these provisions indefinitely. | Chapter 102, Statutes of 2026.                                           |         |
| SB 1008 (Ochoa Bough): California Environmental Quality Act: exemption: railroad grade crossing closure. Reenacts an exemption from the California Environmental Quality Act (CEQA) for the closure of a railroad grade crossing by order of the Public Utilities Commission (PUC) when the PUC has found the crossing to present a threat to public safety.                                                                                                                                                                                                                                                                                 | 8/27/26: Chaptered by Secretary of State. Chapter 151, Statutes of 2026. | Monitor |
| SB 1019 (Grove): This bill would require the Attorney General to establish the California Cargo Theft Task Force to combat crimes involving the theft, diversion, embezzlement, unlawful taking, or fraudulent acquisition of cargo or freight. The bill would require the task force, among other duties, to investigate, apprehend, and recommend for prosecution, as appropriate, individuals or entities that engage in cargo theft or related offenses.                                                                                                                                                                                 | 5/14/26: May 14 hearing: Held in committee and under submission.         | Monitor |
| SB 1136 (Blakespear): This bill require, on or before July 1, 2027, a regional rail operator, as defined, operating within an intercity rail corridor to ensure that its fare systems are fully integrated with the fare systems of the intercity rail operator, and any other regional rail operator, operating in the intercity rail corridor. This bill would                                                                                                                                                                                                                                                                             | 5/14/26: May 14 hearing: Held in committee and under submission.         | Monitor |



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| require an interagency transfer agreement to require a joint powers board to ensure that service planning is provided for special events, commencing with the 2027-28 fiscal year.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                          |         |
| SB 1216 (Laird): Budget Act of 2026. The Budget Act of 2026 would make appropriations for the support of state government for the 2026–27 fiscal year. This bill would amend the Budget Act of 2026 by amending a section relating to appropriations. This bill would declare that it is to take effect immediately as a Budget Bill.                                                                                                                                                                                                                                                                                                     | 6/15/26: Re-referred to Committee on Budget and Fiscal Review.           | Monitor |
| SB 1324 (Blakespear): Passenger and freight rail: LOSSAN Rail Corridor: working group report. This bill would extend the deadline for a report created in SB 1098 (Blakespear), which requires the Secretary of Transportation to convene a working group composed of representatives of certain types of entities, including, among others, metropolitan planning organizations from specified counties. The bill would require the working group to submit consensus recommendations and feedback in a report to the Legislature on or before February 1, 2027, on various topics relating to rail service in the LOSSAN Rail Corridor. | 8/27/26: Chaptered by Secretary of State. Chapter 158, Statutes of 2026. | Monitor |
| SB 1375 (Cortese): California Environmental Quality Act: exemption: urban intermodal rail station project. This bill would exempt from CEQA a public urban, intermodal rail station project within a long-urbanized area within the statewide passenger rail network, at which high-capacity light, commuter, and intercity rail services converge that meets specified conditions, including, among other requirements, a requirement for compliance with various environmental laws and for the adoption of a plan for how any displacement from the project will be                                                                    | 8/21/26: Enrolled and presented to the Governor at 3 p.m.                | Monitor |

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| fully addressed, as provided. Because a lead agency would be required to determine the applicability of this exemption, the bill would impose a state-mandated local program. Provided the station passenger rail service will exclusively use Tier IV or cleaner rolling stock or locomotive engines.                                                                                                                                                                                                                                                                                                                                                                  |                                                                                               |         |
| SB 1411 (Stern): Greenhouse Gas Reduction Fund: funding conditions: high-speed rail. This bill would authorize the authority to enter into new funding commitments with the moneys (collected by the State Air Resources Board from the auction or sale of certain allowances as part of a market-based compliance mechanism to be deposited into the Greenhouse Gas Reduction Fund) outside of the Merced to Bakersfield segment in any amount for additional activities that maximize the efficiency of delivering the project, as specified. By expanding the purposes for which continuously appropriated moneys may be used, the bill would make an appropriation. | 5/14/26: May 14 hearing: Held in committee and under submission.                              | Support |
| <b>Federal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                               |         |
| <b>U.S. House of Representatives</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                               |         |
| H.R.928 (Deluzio): Railway Safety Act of 2025 - To enhance safety requirements for trains transporting hazardous materials, and for other purposes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2/04/25: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials        | Monitor |
| H.R.2853 (Joyce): Combating Organized Retail Crime Act. To combat organized crime involving the illegal acquisition of retail goods and cargo for the purpose of selling those illegally obtained goods through physical and online retail marketplaces.                                                                                                                                                                                                                                                                                                                                                                                                                | 5/13/26: Received in the Senate and Read twice and referred to the Committee on the Judiciary | Support |
| H.R.3194 (Moolenaar): Amend the Clean Air Act to prohibit State standards relating to the control of emissions from existing locomotives and engines used in locomotives, and for other purposes                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7/14/2026: Forwarded by Subcommittee to Full Committee by Voice Vote.                         | Monitor |

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| H.R.3449 (Johnson): Stronger Communities through Better Transit Act. Amend title 49, United States Code, to establish a program to provide grants to eligible recipients for eligible operating support costs of public transportation, and for other purposes.                                                                                                                                                                                                         | 5/16/25: Referred to the House Committee on Transportation and Infrastructure.           | Monitor |
| H.R.3647 (Mullin): Safe Cross Act, Study.—Not later than 1 year after the date of enactment of this Act, the Administrator of the Federal Railroad Administration, acting through the Associate Administrator for Railroad Safety, shall conduct a study to identify any potential benefits and challenges of implementing and using sensors enabled with artificial intelligence at rail crossings as a safety measure to reduce pedestrian and traffic accidents.     | 5/30/25: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials   | Monitor |
| H.R.4926 (Hageman): Highway Funding Transferability Improvement Act. This bill would amend title 23, United States Code, to provide for increased transferability of Federal-aid highway funds.                                                                                                                                                                                                                                                                         | 8/9/25: Referred to the Subcommittee on Highways and Transit.                            | Monitor |
| H.R. 5783 (Pou): State Actions For Employing Transportation Risk Assessments and Crossing Knowledge Strategies Act. The bill would mandate periodic Federal Railroad Administration reports to lawmakers on highway-rail grade crossing safety with details about how states will work with railroads to reduce pedestrian deaths, including suicides, in conjunction with mental health and law enforcement agencies. Such reports would be required every five years. | 12/18/25: Referred to the Subcommittee on Railroads, Pipelines, and Hazardous Materials. | Monitor |
| H.R.6298 (Friedman): Safe and Affordable Transit Act. To amend title 49, United States Code, to provide for grants to certain urbanized areas for operating costs relating to crime prevention and security, and for other purposes.                                                                                                                                                                                                                                    | 11/26/25: Referred to the House Committee on Transportation and Infrastructure           | Support |
| H.R. 7748 (Deluzio): Railway Safety Act of 2026. To enhance safety requirements for                                                                                                                                                                                                                                                                                                                                                                                     | 3/3/26: Referred to the Subcommittee on                                                  | Monitor |

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| trains transporting hazardous materials, and for other purposes. The bill introduces comprehensive safety measures for trains carrying hazardous materials, including mandatory real-time tracking of train compositions, enhanced emergency response planning, and stricter speed limits for high-hazard trains. It requires Class I railroads to maintain accurate, accessible data on hazardous materials and establish emergency contact points.               | Railroads, Pipelines, and Hazardous Materials                                                                               |         |
| <b>U.S. Senate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                             |         |
| S.1218 (Moran): Transportation Assistance for Olympic and World Cup Cities Act of 2025 - provides financial and planning support for cities and organizations hosting international sporting events in the United States, including the Olympics and the FIFA World Cup. Additionally, the bill directs contracting state agencies to develop a growth plan to increase participation of minority- and women-owned businesses in state contracts and subcontracts. | 4/1/25: Read twice and referred to the Committee on Commerce, Science, and Transportation                                   | Monitor |
| S.1733 (Cramer): Highway Funding Transferability Improvement Act. To amend title 23, United States Code, to provide for increased transferability of Federal-aid highway funds. Section 126(a) of title 23, United States Code, is amended by striking "50 percent" and inserting "75 percent".                                                                                                                                                                    | 7/23/25: Committee on Environment and Public Works Senate Subcommittee on Transportation and Infrastructure. Hearings held. | Monitor |
| S. 2651 (Scott): ROAD to Housing Act of 2025 - To increase the supply of affordable housing in America incorporating the Build More Housing Near Transit Act.                                                                                                                                                                                                                                                                                                      | 8/1/25: Placed on Senate Legislative Calendar under General Orders. Calendar No. 143.                                       | Monitor |
| S. 3665 (Duckworth): A bill to prosecute, as a Federal crime, the assault or intimidation of a passenger train crew member in a manner consistent with the prosecution of assault or intimidation of an aircraft crew member.                                                                                                                                                                                                                                      | 1/15/26: Read twice and referred to the Committee on Commerce, Science, and Transportation.                                 | Monitor |





**METROLINK**

## September Legislative Update

*Receive and file.*



# State

- End of session wrap-up
  - Transit funding
  - Metrolink's state operations assistance request
  - Status of pending legislation



# Federal

- August recess tours and meetings
- Continuing resolution and IIJA extension







**METROLINK**

Thank you.





[metrolinktrains.com/meeting](https://metrolinktrains.com/meeting)

ITEM ID: 2026-302-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Hilary Konczal, Chief Safety, Security and Compliance Officer

SUBJECT: System Safety, Security, and Compliance (SSSC) Department Activities - Update Q4 FY26

### **Issue**

Staff is providing a summary of the Authority's safety, security, and compliance activities for Q4 for Fiscal Year (FY) 2026.

### **Recommendation**

Receive and file.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Safety is Foundational:** We will stay on the leading edge by deploying new technologies and processes to enhance the safety and security of our riders, our fellow employees, and the communities we serve. Law enforcement services provide safety and security to the Metrolink commuter rail system and its passengers.

### **Background**

The Authority's mission is to provide safe, efficient, dependable, and on-time transportation service for the southern California region. The System Safety, Security, and Compliance (SSSC) Department works to optimize the agency's safety and promote positive safety culture in the workplace through education, engineering, and enforcement, as well as auditing and inspecting for safety and regulatory compliance. Using a data-informed approach, the

department utilizes leading and lagging data indicators coupled with management experience, research, and professional expertise to understand current trends and make decisions about the use of Agency resources in areas of focus.

Additionally, the SSSC Department tracks and evaluates inspections conducted by the Federal Railroad Administration (FRA) and other regulatory agencies. These inspections apply the general and permanent rules published in the Code of Federal Regulations (CFR), Transportation (Title 49 CFR Part 200-299) to oversee agency compliance and assess penalties for violations against freight and commuter railroad agencies. The FRA conducts inspections and audits agencies' records to monitor and enforce railroad safety regulations specified in Title 49 CFR. The Authority places paramount importance on safety and regulation compliance.

The primary mission of the Authority's law enforcement services is to ensure public safety onboard the trains, to coordinate enforcement with the cities along the Authority's right-of-way (ROW), and to assist with the Authority's fare enforcement and physical security program.

## **Discussion**

### **Rail Incidents**

During FY26 Q4, there were ten (10) train strikes involving Metrolink trains, compared to fifteen (15) during FY26 Q3, representing a 33% reduction from the previous quarter. Systemwide, a total of twenty (20) train strikes were recorded in FY26 Q4, compared to twenty-four (24) in FY26 Q3, reflecting an overall 17% decrease in systemwide train strikes.

\*Systemwide strikes include: Metrolink and foreign trains

| <b>Incident Type</b> | <b>FY26 Q3</b> | <b>FY26 Q4</b> |
|----------------------|----------------|----------------|
| Train vs Pedestrian  | 1              | 2              |
| Train vs Trespasser  | 11             | 4              |
| Train vs Vehicle     | 3              | 4              |

The SSSC Department Security staff, the Los Angeles County Sheriff's Department Metrolink Bureau, and the San Bernardino County Sheriff's Department also continue to focus on the following policing strategies:

- Using current data trends, we continue to focus our Right-of-Way Enforcement activities at the beginning and end of the month, as well as conducting targeted enforcements at reported trouble areas throughout the month.
- Partnering with local police departments to increase grade-crossing enforcements and patrols in their area of jurisdiction, at locations where we have higher numbers of train strikes.
- Encouraging employees and the public to report trespassers and homeless encampments along the right-of-way to Metrolink's Security Operations Center (SOC). These reports help us identify locations with a higher risk of trespassing to dispatch the appropriate resources and/or increase police patrols, relocate homeless encampments and conduct community outreach, educating the public of the dangers of trespassing on railroad property.



## Fare Evaders

During FY26 Q4, fare evasion incidents increased by 17% compared to FY26 Q3. A total of one hundred seventy (170) fare evasion incidents were recorded during FY26 Q4, compared to one hundred forty-five (145) incidents in FY26 Q3.

We are continuing to deploy law enforcement and contract security resources to combat fare evasion. The security department maintains a database of incidents reported to the SOC regarding fare evaders and unruly passengers, which include the station location and trains where these incidents occur. Using this data, we are able to develop trends and identify where a higher number of fare evasion incidents are occurring across the system, allowing us to be proactive and deploy security and law enforcement resources to the appropriate station, or train. Below are a few of the successful strategies being used:

- Perform fare enforcement on board trains ensuring passengers have a valid ticket.
- Continuing "streetcar-ing" operations utilizing Los Angeles County Sheriff's Department Metrolink Bureau, San Bernardino Sheriff's Department, and Metrolink private security.
- Platform sweeps of outlying stations, using Los Angeles County Sheriff's Department Metrolink Bureau and San Bernardino Sheriff's Department Deputies who will arrive at the station 10 – 15 minutes prior to the train arriving and verifying passenger fare.
- Contract security taskforce platform sweeps of outlying stations, who will arrive at the station 10 – 15 minutes prior to the train arriving and verifying passenger fare.
- Utilizing our contract security at Union Station and stations throughout the Metrolink system.

## Unruly Passengers

During FY26 Q4, unruly passenger incidents decreased by 26% compared to FY26 Q3. A total of one hundred ninety-one (191) unruly passenger incidents were recorded during FY26 Q4, compared to two hundred fifty-nine (259) incidents in FY26 Q3.

## Law Enforcement & Security Presence on Station Platforms, Trains, at Grade-Crossings, and Right-of-Way by County and Line

A Problem Orientated Policing Strategy collects and analyzes crime data for trends and threats, as well as other possible security related risks so we can deploy the appropriate resources to mitigate and prevent trespassing and other crimes on the Metrolink system. We also track the initiative-taking activities our law enforcement and contract security are performing to ensure a safe and secure system.

**Table 1 Law Enforcement Activities by County LASD**

|                           | Los Angeles | Riverside | San Bernardino | Ventura | Orange |
|---------------------------|-------------|-----------|----------------|---------|--------|
| Train Rides               | 185         | 16        | 6              | 23      | 90     |
| Platform Fare Enforcement | 1,859       | 55        | 60             | 15      | 222    |
| Grade-Crossing Details    | 480         | 9         | 10             | 2       | 25     |
| Right-of-Way Details      | 2,549       | 87        | 110            | 14      | 88     |

|                         |              |            |            |           |            |
|-------------------------|--------------|------------|------------|-----------|------------|
| Streetcar Details       | 65           | 10         | 33         | 4         | 11         |
| <b>Total Activities</b> | <b>5,138</b> | <b>177</b> | <b>219</b> | <b>58</b> | <b>436</b> |

**Table 2 LASD Activities by Line LASD**

|                           | <b>Ventura</b> | <b>Antelope Valley</b> | <b>San Bernardino</b> | <b>Riverside</b> | <b>Orange</b> | <b>*91/PV</b> | <b>**IEOC</b> |
|---------------------------|----------------|------------------------|-----------------------|------------------|---------------|---------------|---------------|
| Train Rides               | 39             | 84                     | 85                    | 5                | 61            | 25            | 21            |
| Platform Fare Enforcement | 62             | 832                    | 767                   | 185              | 305           | 44            | 16            |
| Grade-Crossing Details    | 35             | 282                    | 127                   | 61               | 22            | 0             | 6             |
| Right-Of-Way Details      | 90             | 1,508                  | 839                   | 274              | 50            | 44            | 44            |
| Streetcar Details         | 8              | 37                     | 56                    | 7                | 11            | 2             | 2             |
| <b>Total Activities</b>   | <b>234</b>     | <b>2,743</b>           | <b>1,874</b>          | <b>532</b>       | <b>449</b>    | <b>115</b>    | <b>89</b>     |

\*91/Perris Valley

\*\*Inland Empire-Orange County Line

**Table 3 San Bernardino County Sheriff's Department Activities SBSD**

|                           | <b>SB Arrow Lines</b> |
|---------------------------|-----------------------|
| Train Rides               | 210                   |
| Platform Fare Enforcement | 511                   |
| Grade-Crossing Details    | 329                   |
| Right-Of-Way Details      | 1,937                 |
| Streetcar Details         | 59                    |
| <b>Total Activities</b>   | <b>3,046</b>          |

\*Montclair through Redlands University

**Table 4 Private Security Train Rides and Streetcar Operations**

|                         | <b>Ventura</b> | <b>Antelope Valley</b> | <b>San Bernardino</b> | <b>Riverside</b> |
|-------------------------|----------------|------------------------|-----------------------|------------------|
| Train Riders            | 6              | 14,384                 | 10,251                | 473              |
| Streetcar Details       | 0              | 14,473                 | 16,224                | 0                |
| Platform Fare Checks    | 0              | 95,696                 | 95,124                | 0                |
| <b>Total Activities</b> | <b>6</b>       | <b>124,553</b>         | <b>121,599</b>        | <b>473</b>       |

## **Rule Violations**

During FY26 Q4, a total of four (4) rule violations were recorded, compared to four (4) rule violations during FY26 Q3. There was no change in the amount of rule violations compared to the previous quarter.

The Compliance team is proactively engaged in performing operational testing and observations with SCRRA contractors and employees, including train crews, to ensure employees are performing their work safely and in compliance with all applicable safety and operating procedures and regulations. Rule violations are investigated, and the compliance department works with the contractor to implement the appropriate corrective actions.

Q4 Root Cause Analysis investigation found the following to be primary contributing factors for the rule violation:

- Lack / loss of situational awareness.
- Lack of communication
- Lack of detailed inspection
- Insufficient training
- Different understanding between department's expectations

## **Reportable Injuries**

In FY26 Q4, there were two (2) FRA reportable contract employee injuries compared to the six (6) injuries in FY26 Q3. This is a decrease of four (4) reportable injuries. None of the reportable injuries were severe and the compliance team is working with each contractor through the root cause analysis process.

## **Quarterly Workplace Safety Campaign**

The SSSC Department develop a Workplace Safety Week Campaign quarterly aimed at enhancing employees' safety awareness and reinforcing the importance of maintaining a safe and secure work environment. The campaign took place from May 04 – May 08, 2026. Throughout the week, 795 employee contacts were made through 57 face-to-face and virtual meetings with employees and contractors.

## **Training**

System Safety staff continues our commitment to promoting a culture of safety awareness throughout our agency and beyond by providing training for employees, contractors, and external stakeholders, including local law enforcement and fire departments.

In Q4 of FY26 the System Safety, Security and Compliance Department staff conducted 67 various safety classes and trained 584 participants. Key training classes included: Passenger Train Emergency Preparedness, Incident Response Plan, Human Trafficking, System Safety Program Plan, Suicide Awareness Prevention and Crisis Intervention, and Fatigue Risk Management Program.

Prepared by:                      Tinh Quach, Manager II, Security Manager

Approved by: Hilary Konczal, Chief Safety, Security, and Compliance Officer

**Attachment(s)**

[Presentation - SSSC FY26-Q4 Report](#)



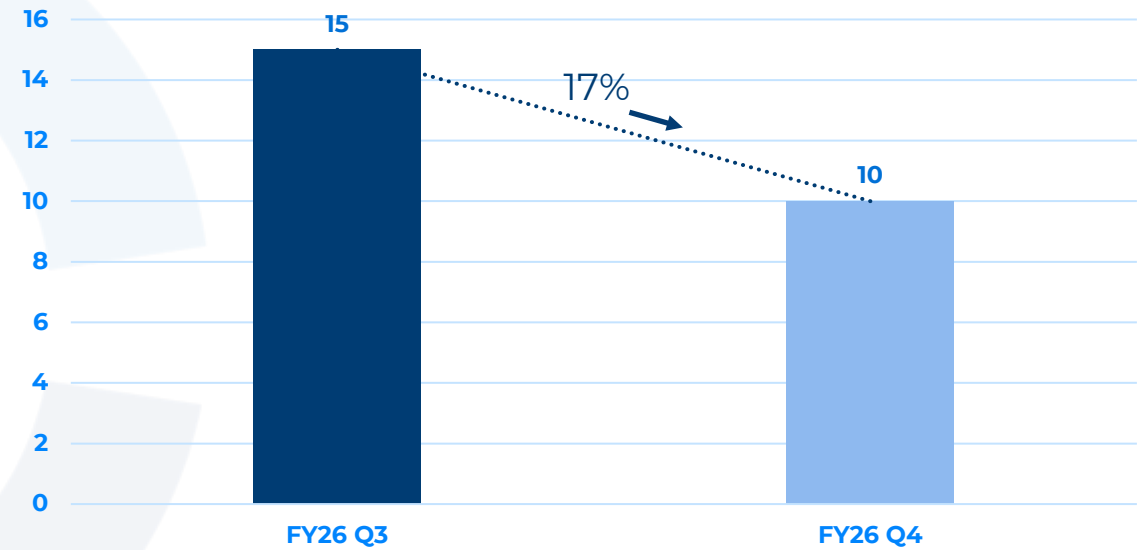
**METROLINK**

**System Safety, Security & Compliance – FY26 Q4**

*Receive and file* **233**

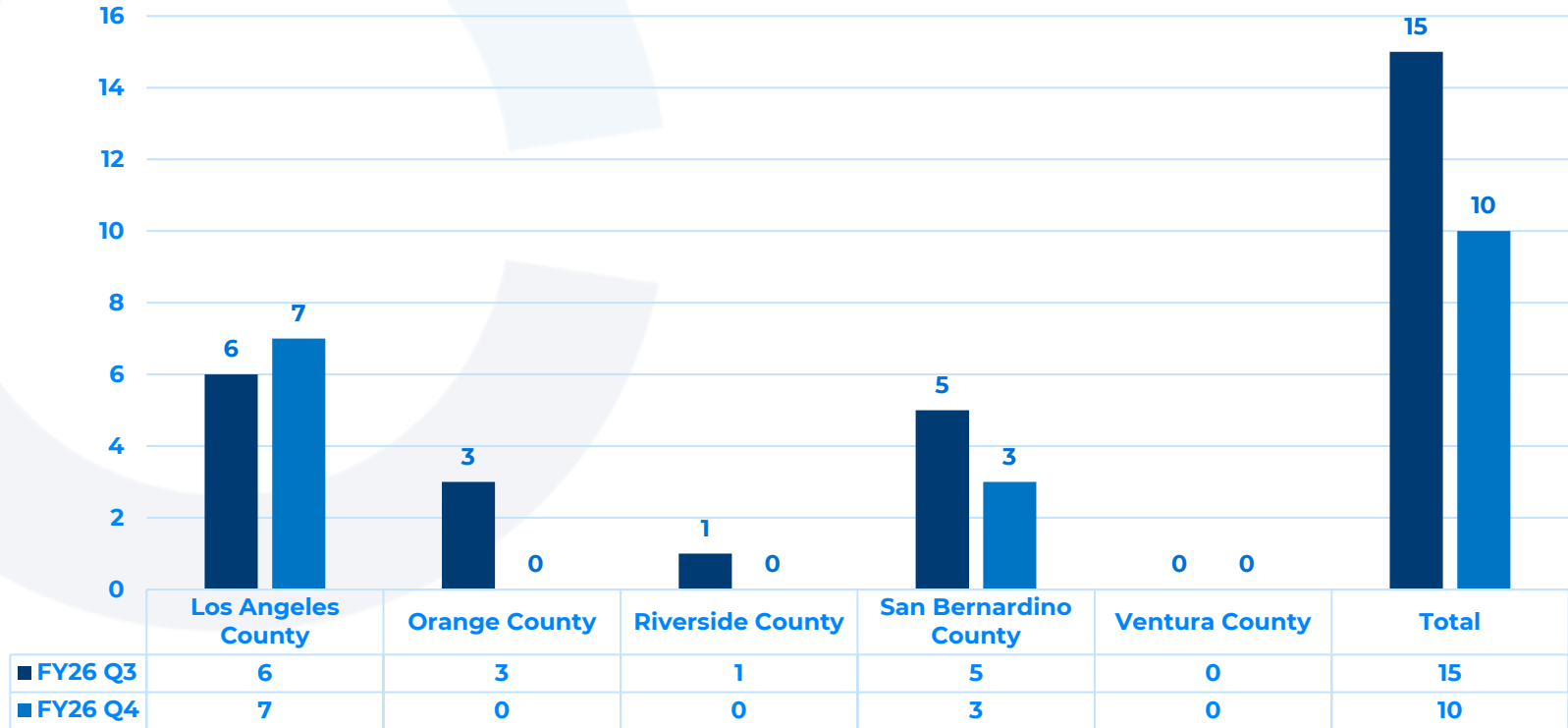


# Total Metrolink Train Strikes

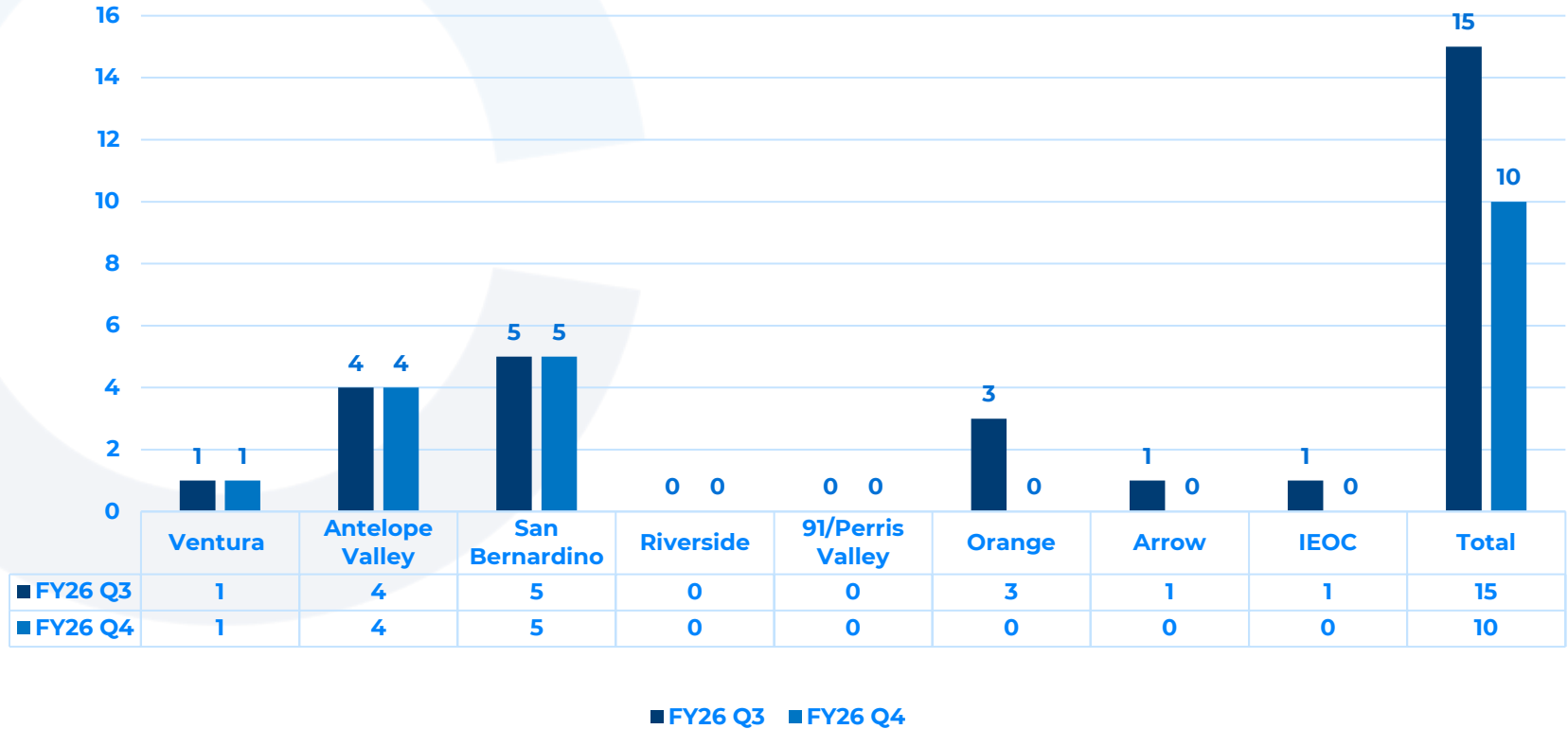


| Incident Type | FY26 Q3 Total | FY26 Q4 Total |
|---------------|---------------|---------------|
| Trespasser    | 11            | 4             |
| Pedestrian    | 1             | 2             |
| Vehicle       | 3             | 4             |

# Metrolink Train Strikes by County



# Metrolink Train Strikes by Line



# Fare Evaders / Unruly Passengers

| Incident Type     | FY26 Q3 Total | FY26 Q4 Total |
|-------------------|---------------|---------------|
| Fare Evaders      | 145           | 170           |
| Unruly Passengers | 259           | 191           |

Fare Evaders: **+17%**

Unruly Passengers: **-26%**



## NTD Reportable Incidents – FY26 Q4

| Incident Type      | Apr | May | Jun |
|--------------------|-----|-----|-----|
| Major              | 0   | 0   | 0   |
| Non-Major          | 0   | 0   | 4   |
| Non-Major Physical | 3   | 2   | 1   |
| Total              | 3   | 2   | 5   |

**Major** – An attack by one person on another without lawful authority or permission that exceeds the reporting threshold.

**Non-Major** – An assault in which the attack involves no physical contact with the transit worker.

**Non-Major Physical** – An assault in which the attack involves physical contact with the transit worker.



## Law Enforcement Activities by County – FY26 Q4

|                                   | Los Angeles  | Riverside  | San Bernardino | Ventura   | Orange     |
|-----------------------------------|--------------|------------|----------------|-----------|------------|
| <b>Train Rides</b>                | 185          | 16         | 6              | 23        | 90         |
| <b>Platform Fare Enforcements</b> | 1,859        | 55         | 60             | 15        | 222        |
| <b>Grade Crossing Details</b>     | 480          | 9          | 10             | 2         | 25         |
| <b>Right-of-Way Details</b>       | 2,549        | 87         | 110            | 14        | 88         |
| <b>Streetcar Detail</b>           | 65           | 10         | 33             | 4         | 11         |
| <b>Total LE Activities</b>        | <b>5,138</b> | <b>177</b> | <b>219</b>     | <b>58</b> | <b>436</b> |

## Law Enforcement Activities by Line – FY26 Q4

|                                   | Ventura    | Antelope Valley | San Bernardino | Riverside  | Orange     | *91 / PV   | **IEOC    |
|-----------------------------------|------------|-----------------|----------------|------------|------------|------------|-----------|
| <b>Train Rides</b>                | 39         | 84              | 85             | 5          | 61         | 25         | 21        |
| <b>Platform Fare Enforcements</b> | 62         | 832             | 767            | 185        | 305        | 44         | 16        |
| <b>Grade Crossing Details</b>     | 35         | 282             | 127            | 61         | 22         | 0          | 6         |
| <b>Right-of-Way Details</b>       | 90         | 1,508           | 839            | 274        | 50         | 44         | 44        |
| <b>Streetcar Detail</b>           | 8          | 37              | 56             | 7          | 11         | 2          | 2         |
| <b>Total LE Activities</b>        | <b>234</b> | <b>2,743</b>    | <b>1,874</b>   | <b>532</b> | <b>449</b> | <b>115</b> | <b>89</b> |

\*91 / PV – 91/Perris Valley Line

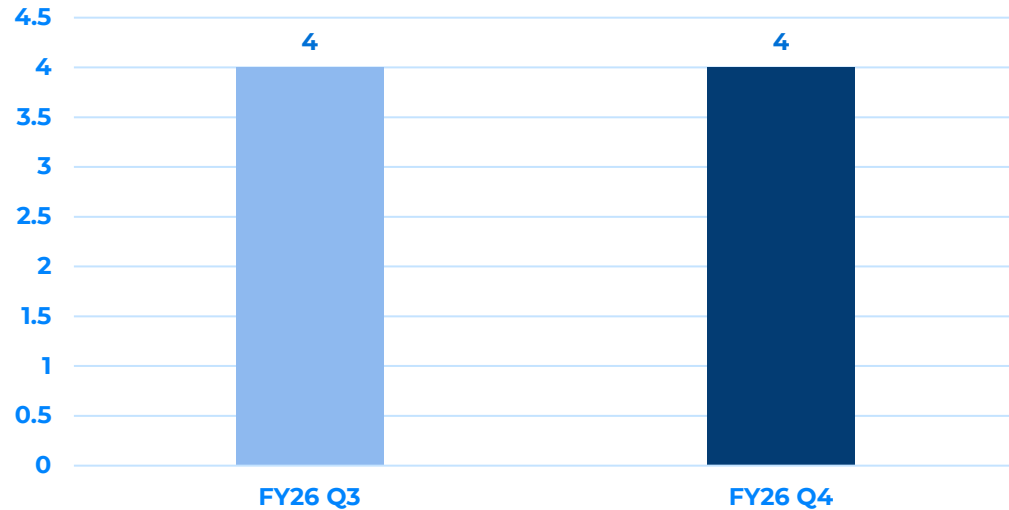
\*\*IEOC – Inland Empire – Orange County Line

# San Bernardino County Sheriff's Department Activities

| Activities                | SB and Arrow Lines |
|---------------------------|--------------------|
| Train Rides               | 210                |
| Platform Fare Enforcement | 511                |
| Grade-Crossing Details    | 329                |
| Right-of-Way Details      | 1,937              |
| Streetcar Detail          | 59                 |
| <b>Total Activities</b>   | <b>3,046</b>       |

\*Montclair station through Redlands University station

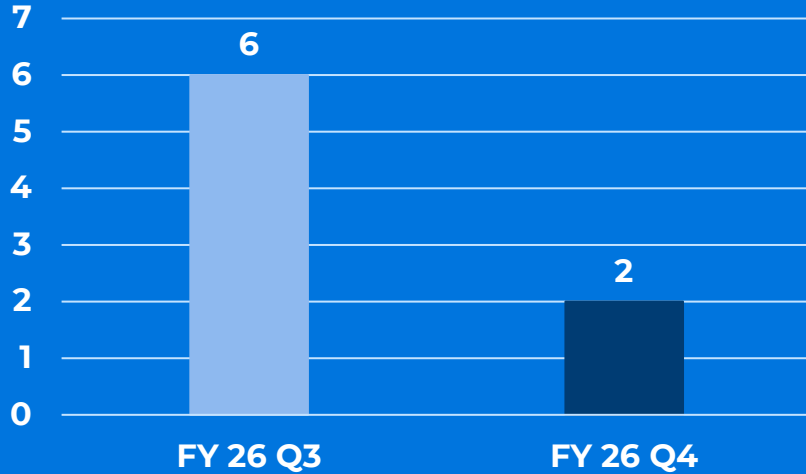
# Rule Violations – FY26 Q3 vs FY26 Q4



## FY26 Q4 Contributing Factors:

- Lack / loss of situational awareness
- Lack of communication
- Lack of detailed inspection
- Insufficient training
- Different understanding between departments expectations

# FRA Reportable Injuries FY26 Q3 vs FY26 Q4



## FY26 Q4 Reportable Injury type:

- Slip, Trip, or Fall x 1
- Laceration x1





# Training

## SCRRRA and Contractor Employee Training

- 67 training classes conducted
- 584 participants trained

## Key Trainings Included:

- Passenger Train Emergency Preparedness
- Incident Response Plan
- Human Trafficking
- System Safety Program Plan
- Suicide Awareness Prevention and Crisis Intervention
- Fatigue Risk Management Program.





**METROLINK**

Thank you.

## ITEM 13A.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-315-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Michelle Pena, Board Clerk

**SUBJECT:** Approval of Meeting Minutes - June 26, 2026 and July 24, 2026  
Regular Board Meetings

### **Recommendation**

It is recommended that the Board approve the Minutes of the June 26, 2026 and July 24, 2026 Regular Board Meetings.

**Prepared by:** Michelle Pena, Board Clerk

**Approved by:** Noelia Rodriguez, Chief of Staff  
Don Del Rio, General Counsel

### **Attachment(s)**

[Attachment A - DRAFT 06.26.26 Board of Directors Minutes](#)  
[Attachment B - DRAFT 07.24.26 Board of Directors Minutes](#)



## **DRAFT MINUTES OF THE BOARD OF DIRECTORS MEETING**

Friday, June 26, 2026

### **BOARD MEMBERS/ALTERNATES IN ATTENDANCE:**

**OCTA:** DOUG CHAFFEE (*Chair*)  
(2 votes) Mark Tettemer

**RCTC:** BRIAN BERKSON (*Vice-Chair*)  
(2 votes) KAREN SPIEGEL  
Michael Vargas

**VCTC:** TONY TREMBLEY (*2<sup>nd</sup> Vice-Chair*)  
(1 vote)

**METRO:** KATHRYN BARGER\*  
(4 votes) ARA NAJARIAN\*\*  
TIM SANDOVAL  
Pam O'Connor\*\*\*  
Gustavo Camacho

**SBCTA:** LARRY McCALLON  
(2 votes) Ray Marquez  
Javier Dutrey

\*Director Barger left the meeting at 11:23 a.m.

\*\*Director Najarian left the meeting at 11:03 a.m.

\*\*\*Director O'Connor joined the meeting at 9:05 a.m.

### **EX-OFFICIO MEMBERS**

**SCAG**  
**State of California**

Marty Simonoff  
Marlon Regisford



**STAFF/PRESENTERS:**

DARREN KETTLE, Chief Executive Officer  
DON O. DEL RIO, General Counsel  
NOELIA RODRIGUEZ, Chief of Staff  
SAMANTHA CERDA, Assistant Board Clerk  
JEFFREY DUNN, Director, Government and Community Relations  
HENNING EICHLER, Senior Manager, Market Insights and Analytics  
GEOFFREY FORGIONE, Associate General Counsel  
HILARY KONCZAL, Chief Safety, Security, and Compliance Officer  
ALBERTO LARA, Chief People Officer  
ELISABETH LAZUARDI, Director, Audit  
MICHELLE PENA, Board Clerk  
TOM SCHAMBER, Chief Financial Officer

Meeting minutes are prepared in a format that corresponds with the Board Meeting Agenda, which is incorporated by reference with these minutes. Board Agendas are available online at [www.metrolinktrains.com](http://www.metrolinktrains.com) under the Meetings and Agendas link or from the Board Clerk at (213) 452-0255.

**1. Call to Order**

The June 26, 2026 Regular Board Meeting was called to order at 9:00 a.m. by Chair Chaffee in the Metro Board Room, One Gateway Plaza, 3rd Floor, Los Angeles, CA 90012.

**2. Safety Briefing**

Hilary Konczal, Chief Safety, Security, and Compliance Officer conducted the safety briefing.

**3. Pledge of Allegiance**

Director Spiegel led the group in the pledge of allegiance.

**4. Roll Call**

The Board Clerk called roll and confirmed that a quorum of the Board was present. Directors Nguyen, Go, Molina, Engler, Solis, Ohlsen, Allen, and Wapner were absent.

**5. Public Comment**

The Board Clerk announced 31 written comments were printed and placed at the dais and will be emailed to the Board after the meeting.

**6. Approval of Consent Calendar Items**

ACTION: Upon a single motion by Director Najarian and seconded by Second Vice-Chair Trembley, the Board (11-0) approved Consent Calendar items 12.A-12.I with the exception of 12.H.

Item 12.H was removed from the Consent Calendar and considered separately.



## **12.H Performance Audit: Inventory Obsolescence Controls**

Director Najarian noted the findings in this audit and that management has agreed with the findings. He asked with regards to inventory control if any of these controls would have prevented the spider shaft issues that caused service disruptions.

CEO Darren Kettle explained the struggle has been with adequate inventory and now the spider shafts are not breaking as frequently and are in the inventory. Staff has made modifications to the fuel manifold over the last several months so now there are more parts available and solutions in place to limit the amount of time locomotives are parked when mechanical issues arise. He clarified the audit looked at obsolete parts and their issues and management agrees with the recommendations that came out of the corrective action.

Director Najarian stated inventory control is part art, part science and staff should forecast what parts will be needed while ensuring they don't become obsolete. He urged implementing those recommendations as soon as possible.

The Board received and filed this item.

## **7.A Adopt Fare Structure Pilot, Approve Limited Fare Increases, and Receive Results of Public Comment**

Senior Manager of Market Insights and Analytics Henning Eichler stated on May 1, 2026, the Authority initiated public outreach to seek public feedback on proposed fare and service changes. He went over the customer feedback in support of the current simplified fare structure and limited fare increases after October 1.

Ten members of the public spoke about the proposed fare increase and service changes.

Director Barger asked what the Title VI analysis shows on the disproportionate impact to riders by region regarding the fare restructuring and increase in fare for day passes.

Mr. Eichler explained the Title VI equity analysis was done at the system level and staff found there was no disparate impact of disproportionate burden.

Director Barger asked how much a rider that's coming from Lancaster or San Bernardino to downtown would be spending for a one-way ticket.

Mr. Eichler responded he would have to look those numbers up but the 14% increase on the one-way ticket would be the same 14% across the system.

Director Barger asked whether staff took the Antelope Valley into consideration as they have fewer transportation options available.

Mr. Eichler acknowledged affordability is an issue and 10-15 years ago the Board lowered fares on the Antelope Valley Line (AVL) by 25%. Over the years the agency has added discounts for seniors, for students, and for disabled riders which results in AVL riders paying the lowest fares in the system.

Director Barger asked if staff is going to look at schedules and resolve some of the issues riders have brought up during the public hearing in terms of convenience.

Mr. Kettle explained the schedule is part of the conversation related to the budget as it drives the budget and the current schedule is what the agency is looking at running for now.

Director Barger asked if the agency can explore the idea of capping costs for the end-of-line community so they are less affected by the price increases.

Mr. Kettle noted Metrolink has not done fare capping in its history but it can certainly be explored.

Director Barger asked if individuals go onto trains to inspect the restrooms and make sure everything is in working order.

Mr. Kettle stated conductors will typically call in anything out of place so maintenance crews at the end of the line can take care of issues.

Director Spiegel opined this decision is going to make things turn backwards for short-term relief as ridership is not back to pre-COVID numbers. She noted the speakers were an awesome representation of riders: students, disabled, disabled seniors, city of Riverside, university faculty. She urged banding together to work with all riders to share the importance of the system with the State beyond this Board. She posited the agency cannot wait 13 years to do a big fare increase and it needs to be incremental so it's not felt by riders in a dramatic way.

Director Dutrey asked how much revenue the recommended fare increase would bring in.

Mr. Eichler stated this would bring in a projected \$1.7M with the current schedule and additional service reductions would amount in less.

Director Dutrey asked how much money would be lost with the current forecast being off.

Mr. Kettle stated there is a \$15M shortfall of fare revenue in the current fiscal year.

Director Dutrey received confirmation that OCTA and Metro's reduction dollar amount is approximately \$9.5M. He asked if the fare increase had to be done today or if it could wait until the July meeting.

Mr. Kettle explained the Board can take action going forward at any point unless too much time passes triggering another Title VI analysis. The aim was that the fare increase would be effective in October so any delay in an action would delay the implementation of the fare increase.

Director Dutrey asked if the Board waits until July if the fare increase could still happen October 1.

Mr. Eichler stated from a Title VI perspective there would be no problem and October implementation would be at the earliest; it would just delay the additional revenue that would be gained.

Director Dutrey suggested waiting until July so the Board gets a better perspective on costs, especially getting directions on Scenario 4 and answers to Supervisor Barger's questions.

Vice-Chair Berkson voiced his issue with the huge jump in fares. He noted the amount of people who have come out to speak had just cause on why it's going to hit their pocketbooks. He stated the agency has been working hard to try to get ridership back to pre-pandemic numbers and a 14% increase may push people away. He concurred with Director Dutrey to wait another month or two and bring the fare increase back with the budget to give the Board a better direction to provide the best possible pricing model.

Director Sandoval shared it was incredibly powerful to hear from the students and people for whom public transportation is a lifeline and part of their daily lives. He thanked the Chair for starting off this process with their words. He noted it has been 13 years and asked if there is a Board policy to regularly look at incremental fare increases as opposed to raising it 14% at once.

Mr. Kettle stated the Board doesn't have an established policy as to a regular check-in for fare adjustments. There is a fare policy but it doesn't say the Board shall consider a reevaluation every set number of years.

Director Sandoval asked that the Chair allow the Board to have that conversation because costs go up everywhere each year, so it's important to work towards having a policy in order to make a sound decision with input from the community. He stated he was on the fence about delaying the fare increase as it will lose revenue for the agency, which the agency needs.

Mr. Kettle asked if the pilot ends June 30 and would need to be extended.

Mr. Eichler clarified the recommendations can be voted on separately and postponing the fare increase would not impact the pilot. Since the pilot will end June 30, it is recommended the Board should adopt the pilot which has shown positive results and has been popular with the riders.

Mr. Kettle added Metrolink's farebox recovery is at about 13% and while one-way ticket sales and day passes generate revenue, monthly passes are the larger revenue generators so the amount the fare increase revenue would affect the budget is pretty de minimis.

Director Sandoval asked if the Board could extend the pilot another month as it relates to the fare increase as opposed to dropping it.

Mr. Kettle replied the Board could delay taking action on the fare increase and the lost revenues would not be significant. The Board could take action on the pilot, making it permanent, and the increases would be a second action that could be taken at another meeting.

Second Vice-Chair Trembley thanked the speakers, particularly the students. In reading the written comments and emails he noted two policy issues: fare increases and service reductions are inextricably linked and they need to be looked at together because that provides additional reassurance to passengers. He added the 13% farebox recovery is awful and the State is thinking about reinstating farebox recovery penalties. He voiced his shock that Metrolink has gone 13 years without a fare increase and opined it is not responsible on the part of the Board. He agreed with Director Sandoval that the Board should be looking at this periodically and taking action in association with fare increases.

Second Vice-Chair Trembley stated he would be in favor of deferring most of the recommendations until deciding on the budget and deciding on a service reduction course. He stated in the interim for the next 30 days the Board should extend the pilot program and take it from there.

Director Camacho agreed it is a significant increase and from staff's recommendation, necessary, but increases should be done incrementally to lessen the impact. He supported in the future having a policy to look at fares to not impact ridership dramatically. He asked what amount of ridership would be lost based on this fare increase.

Mr. Eichler stated as recommended, the fare increase would reduce ridership by 3.5%.

Director Najarian shared he was on the Board 13 years ago during the last fare hike process. The Board didn't like it back then and said the same thing, it should be incremental. He applauded and thanked all the riders and stated the agency owes a duty to them in maintaining a clean, safe, affordable transit system but he also has a duty to the agency itself to keep it solvent and keep it operating for the years to come. When he started on this Board in 2006, farebox recovery was close to 50% and now it is 13% so the additional burden comes from member agencies. Costs have gone up incredibly so he did not see how the Board could not implement the fare increase and stated it cannot just be kicked down the road. He noted as a municipal elected official he knows the pain that comes when an agency doesn't increase electric or solid waste rates in 10 years. He opined incremental increases is what Metrolink needs to do going forward but right now the 14% that's recommended today is needed.

Director McCallon shared he was also on the Board during the last fare increase. He sees service reduction along with fare increases as a death spiral and stated it's important that the agency get the budget decision made before talking about fare increases. He made a motion to approve recommendation #1 that deals with the pilot and put off the rest of the discussion including the fare increase until July when the Board can get a look at the budget.

Chair Chaffee closed the public hearing. He agreed 13 years is too long and an annual review of fares should be put on the Board's agenda. He stated he serves on other boards and one in particular always takes a COLA whether needed or not and has avoided big increases. He noted Metrolink does not have a dedicated funding source and everything comes from the five member agencies, which is a big burden to bear. He asked the speakers who came out to contact their legislators to support the request Metrolink has put in for funding from the State. He reminded that OCTA is one of the agencies that is looking at pulling back on its commitment and it is not a good message for him to return to OCTA and say the Metrolink Board is not even taking a modest increase to help with the burden. He brought up the new prices for the day passes and asked if the discounts apply.

Mr. Eichler confirmed students will still receive a 50% discount on the fares and EBT card holders will also receive an additional 50% so all discounts can be applied to those passes.

Chair Chaffee appreciated the need and expressed concern for cutting back service as it is more detrimental than modest fare increases. He stated service is really the key to going forward and increasing ridership and modest fare increases are needed. He was unsure what would be gained by postponing the fare discussion a single month. He reiterated the budget discussion for the OCTA Board will be difficult if Metrolink doesn't at least take a

modest step by increasing some fares. Chair Chaffee agreed there needs to be an annual looksee at fares, and his desire to increase the schedule cannot be done without some fare increases.

Director McCallon withdrew his original motion and moved staff's recommendation, including all of the items.

**ACTION:** Upon a single motion by Director McCallon and seconded by Director Najarian, the Board (6-4-1):

1. Adopted Metrolink's current simplified ticket and discount fare structure, including the 50% discount on student fares, as part of Metrolink's regular fare structure once the fare pilot ends on June 30, 2026; and
  2. Raised the price of the SoCal Day Pass from \$15 to \$19 on weekdays, and from \$10 to \$12 on weekends, and raise the price of the one-way ticket by 14% for implementation not before October 1, 2026; and
  3. Deferred decisions on FY27 service reductions until next month; and
  4. Adopted the CEQA finding; and
  5. Received the results of the Title VI fare equity analysis; and
  6. Received a summary of the public feedback received during the public outreach; and
  7. Received the updated Fare Policy document,
- with Directors Berkson, Spiegel, Trembley, and Dutrey voting no and Director Barger abstaining.

Assuming current service levels, the October 1, 2026 fare increase will generate \$1.667 Million in additional fare revenue in FY27.

## **8. REGULAR CALENDAR**

### **8.A Successor Collective Bargaining Agreement with the Amalgamated Transit Union Local 1277**

Chief People Officer Alberto Lara requested approval of the successor one-year collective bargaining agreement covering wages, benefits, and working conditions with the Amalgamated Transit Union Local 1277.

Labor Counsel Irma Rodriguez Moisa stated the agreement is for a one-year term and went over the bargaining sessions, who is covered, and other provisions.

Director Spiegel requested clarification on the "me too" provision.

Ms. Rodriguez Moisa explained if during the course of this year the Board passes a resolution to pay its non-employees an across-the-board cost of living adjustment that is more than 3% – not the normal step or merit increases – it will also be provided to the ATU. Should the Board choose to provide the merit program this year ATU would also be provided a 1% increase across the board.

Director Spiegel received confirmations that the holidays are the ones the Board declared as paid holidays.



In response to a question from Second Vice-Chair Trembley, Ms. Rodriguez Moisa clarified she meant to say “non-represented employees” within Metrolink rather than “non-employees.”

**ACTION:** Upon a single motion by Director Sandoval and seconded by Chair Chaffee, the Board (11-0) approved a one-year successor Collective Bargaining Agreement as detailed in the attached Collective Bargaining Agreement (CBA) covering wages, benefits, and working conditions with the Amalgamated Transit Union Local 1277. The term of the CBA shall be from July 1, 2026 through June 30, 2027. This agreement is consistent with the Board authority as provided to the negotiating team.

The agreed upon increase amount is 3% which totals ~\$143,538.00.

## **8.B Annual Renewal of Insurance Program for 2026-27 Fiscal Year**

Raymond Barrera, Senior Counsel, Risk Manager, explained the Authority requires insurance to effectively manage its operating and other major risks and ensure its continued economic viability in the event of a catastrophic event. Authorization is required to renew the listed insurance policies for Fiscal Year 2026-27. He went over the liability, property, and miscellaneous coverage costs as compared to the previous year. He stated updated ridership data can be provided to the insurance brokers to evaluate if that would affect the premiums.

Director Najarian asked how much coverage is required of consultants like Alstom.

Mr. Barrera stated it is quite a bit and he was involved in setting those limits and can get that information.

Director Najarian asked if that results in any cost saving to Metrolink’s premiums if consultants have coverage that can be tapped into.

Mr. Barrera explained it’s a factor and when the application is submitted it is all based on information provided to the underwriters such as major contracts and it is a positive for them to see insurance is in place for the contractors that do major work for the agency.

Director Spiegel stated she always wants to make sure there is elected officials’ coverage.

Director Tettemer asked if ridership is the only driver that influences the rates or if it includes train miles.

Mr. Barrera clarified it is the number one metric for liability, but they also like to see the train counts. In response to a follow-up question if service reductions will drive down costs, Mr. Barrera stated there are no guarantees but if it is significant that can move the needle.

**ACTION:** Upon a single motion by Director Tettemer and seconded by Director McCallon, the Board (11-0) authorized the Chief Executive Officer to purchase insurance for the 2026-2027 insurance year for a total premium cost not to exceed \$17,678,205, as indicated below. Since the Committee meeting, we have received updated quotes for Auto Liability and Workers’ Compensation. The new not to exceed total cost for all policies is \$17,478,592.

Sufficient funding is included for this level of premiums in the proposed FY2026-2027 budget, which is contingent upon Board approval.

## **8.C FY27 Budget Development Update**

Chief Financial Officer Tom Schamber provided an update on the status of development of the FY27 Budget. He went over the budget challenges, revenues and operating expenses, historical context, the FY27 budget development timeline and assumptions, service scenarios, historical operating surplus, and state funding.

Mr. Kettle explained there is a State budget but there have not been any trailer bills yet which is where Metrolink would receive any funding so he won't hear anything until early August at the soonest.

Mr. Schamber noted how tenuous the funding structure for the agency is and the fact there is no dedicated funding source for Metrolink. He went over the capital budget and timeline for adoption.

Director Barger received confirmation staff is only focusing on Scenario 4 and Scenario 1 is off the table. She asked if staff is working with the member agencies on Scenario 4 and wanted to make sure there is communication taking place at staff level.

Mr. Kettle confirmed staff is trying to finalize a budget based on Scenario 4 and how it then spreads out amongst the five member agencies. When completed, it will be shared immediately with the member agencies so they know what that looks like. Until staff runs Scenario 4 all the way through the budget model he does not know what the various shares are for each of the member agencies.

Director Barger stated there should already be a framework and asked when the books close.

Mr. Kettle confirmed books close on June 30 but the agency is operating on a continuing resolution for an additional three months.

Director Barger requested a dual path working with Metro to avoid a reaction to these significant cuts and riders with a lot of angst and concern about the elimination of the service. Director Barger added she and Metro's CEO made it clear what the expectation is for the AVL because many people depend upon it to come down.

Mr. Kettle stated staff knows what Scenario 4 looks like but not what it means for each of the five counties. He reiterated the intent to make sure the information is available as soon as Finance completes the budget.

Director Barger asked if Orange County still had a 10% reduction on the table and if Metro had 3% if the other counties are agreeing to status quo.

Mr. Kettle explained there are communications from San Bernardino and Riverside that will increase contribution over the current fiscal year of about 5-6%. He confirmed their contribution covers revenues and not additional service. Scenario 4 is not as expensive as the optimized schedule but there is a concern about what the number looks like and if it will hit the OCTA and LA Metro targets.

Director Barger asked if the rollover dollars have already been programmed or if member agencies are taking them back.

Mr. Schamber explained the intention is when member agencies get an invoice next week to pay their support they will use these funds on hand to pay that support.

Director Barger received confirmation that is how it was done in years past. She requested the Board discuss changing how the surplus is handled because if the agencies have allocated that money, it should be used if it's going to better facilitate services.

Director McCallon was pleased to see the "doomsday scenario" is not being pursued anymore. He opined Scenario 4 would provide the fastest path to budget adoption because the associated costs should be known and capable of being quickly quantified as it aligns with current ridership, which is known. He asked if there is any way to get the budget and member agency allocations to the Budget Committee in July.

Mr. Kettle explained July was the intent, but it took some time to get needed information from Alstom. He added the Finance team will do what it can and running the scenario through the all-share program takes some time.

Director McCallon appreciated all the work Finance is doing, but it would be most helpful to get this expedited as quickly as possible with the goal being to get it to the July Budget Committee meeting.

Mr. Kettle stated he will keep the Board and the Committee informed about the status of being able to make that happen.

Director Tettemer asked if the budget will go to the July 9<sup>th</sup> Member Agency Advisory Committee (MAAC) meeting and July 10<sup>th</sup> Budget, Audit, and Finance Committee (BAFCOM).

Mr. Kettle confirmed the budget will go to the MAAC to review it for a few weeks before it would go to the full Board. He noted the budget adoption is operating on such a compressed schedule that it probably will not make the July MAAC and probably not BAFCOM. He reiterated there will be MAAC review of the budget before the July Board meeting.

Mr. Schamber confirmed the budget would go to the MAAC and then a couple of weeks later it would go to the full Board.

Director Tettemer asked if the Board would approve a tentative budget and before it goes out for approval by everyone else and comes back for adoption in August.

Mr. Schamber explained it would come back in August for adoption at the August 14 meeting.

Director Tettemer asked if the presumption is between July 24 and August 14 all the other agencies are to approve the budget before it becomes finalized by the Metrolink Board.

Mr. Schamber clarified the other agencies wouldn't necessarily adopt as each agency has their own timeline for adopting Metrolink's budget but getting MAAC's blessing and informing the Metrolink Board as to each agencies' position on the budget would happen. If any agency hasn't adopted the budget on their side then Metrolink's adoption would be contingent upon their subsequent adoption.

Director Tettemer asked about a deadline where State funding would be hard to incorporate.

Mr. Kettle stated the agency would need to have something from the State by the middle of August. He noted with the uncertainty of returning to higher levels of service with additional funding it would still take time to bring conductors and engineers back who have left due to service cuts.

Director Tettemer asked what the JPA says about reserve funding how it is to be dealt with.

General Counsel Don Del Rio stated the JPA does not address surplus issues.

Director Sandoval opined Scenario 4 is a step in the right direction and the budget process has been a mess and people are worried deeply about whether Metrolink is going to exist. As part of the budget process Metrolink typically provides a preliminary budget to member agencies, and it's an iterative process where there's a back and forth over several months. He asked why a budget has not been provided once it was known there would be a potential reduction from both Metro and OCTA.

Mr. Kettle explained Metrolink started the budget process as always in September or October of the previous fiscal year and received notice from OCTA that they were going to come in with a reduced number. Finance and Operations staff had to come up with a schedule that could meet Orange County's target reduction coupled with the problematic ridership forecast that required new numbers meant stopping the budget process midcourse. Then Metrolink received a reduction request from LA Metro which started the process again to develop a schedule and get to those numbers which is how Scenario 1, the "doomsday schedule," came about. He explained this budget met the requirement for a balanced budget and met the LA and OCTA target reductions but when he shared Scenario 1 with the member agencies' CEOs they did not like it and directed the MAAC to come up with two additional. He concluded Metrolink has tried to be transparent and responsive as staff has gotten information and input from the member agencies.

Director Sandoval stated going into next year there is always the possibility that member agencies may have to reduce their contributions or the forecast may not be accurate but a budget needs to be produced on time for consideration. He added communication has been an issue, and the agency has to do better next year approaching the budget process. He opined bringing back the committee was important because Metro has multiple meetings leading up to the budget.

**ACTION:** Upon a single motion by Second Vice-Chair Trembley and seconded by Director Barger, the Board (11-0) requested staff:

1. Report back to the Board for suggestions on structural changes to the preparation, presentation, and adoption of the budget by December 31; and
2. Bring back an agenda item for discussion and resolution of consideration of rollover and surplus funds year over year by December 31; and

3. Bring back an agenda item by December 31 regarding the annual consideration by the Board for potential fare changes and discussion of creating a policy so the Board considers potential fare changes every year.

Chair Chaffee stated member agencies need to be providing information to Metrolink at an earlier time about changing or pulling back funding and suggested a deadline for member agencies to provide an idea of where they are at.

Director McCallon noted at SBCTA they have short-term transit plans that cover five years that the various agencies agree to. He recommended a short-term plan looking out five years that each member agency and Metrolink review and agree to that would include the schedule plus monies that will be available.

The Board received and filed this item.

#### **8.D Approval of Request for a Three-Month Continuing Appropriations Resolution for the Authority's FY2026-27 Operating Budget**

The Authority is required, under the Joint Powers Authority (JPA), to transmit and adopt Metrolink and Arrow operating budgets by June 30, 2026. Due to delays in preparing the Metrolink Operating Budget and in adopting the Arrow budget, the Authority could not meet the JPA-prescribed deadline. Board-approved Finance Policy 1.1 allows the Board to adopt a continuing appropriation resolution until the SCRRA proposed budgets are approved.

**ACTION:** Upon a single motion by Director McCallon and seconded by Director Spiegel, the Board (11-0) approved:

1. The request to delay transmittal of the proposed FY27 Operating Budget to the Member Agencies and defer consideration and adoption of the proposed FY27 Operating Budget by June 30th as required by the Joint Powers Authority; and
2. Approval of a three-month continuing appropriations resolution in lieu of the Authority's Metrolink FY27 Operating Budget. This allows extended time for development and transmittal of a Proposed FY27 Budget from the Authority to the Member Agencies, with adoption no later than September 30, 2026; and
3. Approval of a three-month continuing appropriations resolution for Arrow Service (Operations and Capital), with adoption of the FY27 Budget no later than September 30, 2026.

Approval of this item will provide temporary funding for Metrolink and Arrow without the adoption of a budget. At such time as FY27 budgets are adopted, the amounts due from Member Agencies for the entire year will be as adopted, and any adjustments to 1st-quarter support paid under the continuing resolution will be reflected in their 2nd-quarter invoices.

#### **8.E Approval for Continuation of Spending on FY27 Carryforward of Capital Projects Approved in Prior Years**

The Board is being asked to approve the carryforward of authority for prior-year capital appropriations that will remain unspent at the beginning of each subsequent future fiscal year. Because the FY27 Capital Budget will not be adopted by June 30, 2026, this action by the Board is required to continue spending on such projects without interruption.



ACTION: Upon a single motion by Director McCallon and seconded by Director Spiegel, the Board (11-0) approved continued spending of Capital Carryover, not to exceed project amounts approved in prior years.

There is no budget impact as a result of the adoption of this item by the Board.

## **8.F June Legislative Update**

Government and Community Relations Director Jeff Dunn provided a monthly update on current legislative affairs. He shared that Senator Durazo, Senator Blakespear, and Assemblymember Carillo lead Metrolink's request for \$35M of State assistance to fund the operational shortfall. He touched on other advocates who have submitted letters of support. He went over CARB's cap-and-invest program amendments and the BUILD America 250 Act five-year surface transportation bill.

The Board received and filed this item.

## **9. Chief Executive Officer's Report**

Mr. Kettle shared an update on the FIFA World Cup and introduced the Program Delivery 2026 summer interns.

## **10. Board Members' Comments**

Second Vice-Chair Trembley requested staff bring a specific agenda item on LA28 back to the Board on or before the October regular Board meeting.

## **11. Chair's Comments – None.**

## **12. CONSENT CALENDAR**

### **12.A Approval of Meeting Minutes - May 22, 2026 Regular Board Meeting**

The Board (11-0) approved the Minutes of the May 22, 2026 Regular Board Meeting.

### **12.B Contract No. MS289-22 - Track and Signal Infrastructure Maintenance and Support Services - Herzog Contracting Corporation - Increase Contract Authority for Base Maintenance Services for FY26-27**

Contract authority for Base Maintenance services for the contract performance period (FY26-FY27) is required to provide inspection, testing, reporting, and maintenance for track, structures and right-of-way and maintenance of wayside Train Control, Communications, Signals Systems to stay in compliance with Federal Railroad Administration (FRA) regulations as well as to support capital, rehabilitation, and third-party external projects.

The Board (11-0) authorized the Chief Executive Officer to approve the base maintenance contract authority for Contract No. MS289-22 for Track and Signal Infrastructure Maintenance and Support Services with Herzog Contracting Corp in a not-to-exceed amount of \$49,508,107.82 for FY26-27.

The amounts for which base maintenance annual contract authority is requested are included in, and are contingent upon, the adoption of the Proposed FY27 Operating Budget

and the FY27 Arrow Budget. Funding for subsequent years will be requested through the annual budget or equivalent process. There is no financial commitment with respect to subsequent years, and work will be authorized only if funding is approved.

**12.C Contract No. SP655- 27 - Printing Services - Recommendation to Award - Eclipse Printing dba James Litho**

The Authority requires a full-service print services vendor to provide pre-press, printing, packing and distribution services in support of marketing collateral, train schedules and signage initiatives. The selected vendor will assist Metrolink in achieving its marketing objectives to increase ridership, reinforce the brand, and provide essential and timely train information to customers and key audiences.

The Board (11-0) authorized the Chief Executive Officer to award Contract No. SP655-27 to Eclipse Printing dba James Litho to provide Printing Services for a base term of three years with two one-year options. Options will be exercised at the discretion of the Authority's CEO, and subject to funding availability. The requested total not-to-exceed contract authority is \$750,000 for the three-year base period plus \$250,000 for each one- year option, for a total of \$1,250,000. This award is subject to the resolution of any timely filed protest.

Funding for the first year of this contract is included in the proposed Fiscal Year 2026-27 Marketing Budget and is contingent upon its adoption by the Authority Board. Funding for subsequent years will be requested through the annual budget process. There is no financial commitment with respect to future years; work will only proceed if funding is approved.

**12.D FY2026-27 Annual Contract Authority for Purchase of Various Original Equipment Manufacturer Components, Information Technology Products, Administrative and Operating Services, Maintenance, Repair, and Operations Services, and Leases.**

Annual authorization is required to continue the purchase of various Original Equipment Manufacturer (OEM) components, Information Technology products, administrative and operating services, maintenance, repair, and operations services, and leases.

The Board (11-0) authorized the Chief Executive Officer to approve the contract authority of the list of Annual items in Attachment A in a total not- to-exceed amount of \$28,894,801 for FY2026-27, and to extend the terms to June 30, 2027, contingent upon Board approval of the FY2026-27 Operating Budget. The approval of contract authority does not represent a commitment in the Budget, and purchases will be based on actual needs and subject to budget availability.

The amounts for which annual authority is requested are included in, and contingent upon, the adoption of the Proposed FY2026- 27 Operating Budget. For the period July 1, 2026 through September 30, 2026 funds will be provided by the FY27 Continuing Appropriations Resolution, and contingent upon its approval.

## **12.E Rail-2-Rail Agreement - Time Extension No. 9**

The current Rail- 2-Rail (R2R) Agreement with the Los Angeles - San Diego - San Luis Obispo Rail Corridor Agency (LOSSAN) and the National Passenger Railroad Corporation (Amtrak) was last extended to June 30, 2026. An amendment to the agreement is needed to continue the program past June 30, 2026.

Usage of the R2R program has also increased significantly in the last year. Since the program is paid for on a per-passenger basis, the cost of the program has also increased. This requires an amendment to increase contract authority.

The Board (11-0) authorized the Chief Executive Officer to negotiate and execute an amendment which extends Agreement No. L-9-0005 between LOSSAN, the Southern California Regional Rail Authority (Authority), and Amtrak to continue the Rail-2- Rail (R2R) program for up to a six-month term through December 31, 2026, and increase the total maximum contract value to \$6,708,887.

An increase in total contract authority is requested of \$1,487,208, for a new total of \$6,708,887. The total authority in FY26 for FY26 R2R and codeshare usage is \$1,500,000. The total authority for the first six months of FY27 is \$675,000. These amounts are included within the FY26 budget and drafts of the FY27 budget. Expenditure of funds is contingent upon adoption of the FY27 budget.

## **12.F Recommendations for Improving the Performance of the LOSSAN Rail Corridor**

Senate Bill 1098 (Blakespear, 2024) requires the California State Transportation Agency (CalSTA) to develop and present a report to the state Legislature identifying recommendations for improving the performance of the LOSSAN Corridor connecting San Diego, Los Angeles, and San Luis Obispo. The 351-mile route is the busiest state-supported Amtrak route and the second busiest intercity rail corridor in the nation. The report is required to be presented to the Boards of Directors of Metrolink, LOSSAN and North County Transportation District before submittal to the Legislature. CalSTA staff will present key findings of the draft report and be available to answer questions.

The Board received and filed this item.

## **12.G Report of Financial Results for the 10 months ending April 2026**

This report covers monthly Ridership, Revenue, and Financial Operating Performance for the ten months ended April 30, 2026.

The Board received and filed this item.

## **12.H Performance Audit: Inventory Obsolescence Controls**

This item was considered earlier in the meeting, see page 4.

## **12.I Capital Program Status Report**

Staff is providing an update on the progress of the Authority's Capital Program, including the Southern California Optimized Rail Expansion (SCORE) Program and the State of Good Repair Program.

The Board received and filed this item.

**13. ADJOURNMENT**

There being no further business for consideration by the Board, the meeting was adjourned at 11:36 a.m.

Prepared by,



Michelle Peña  
Board Clerk



**DRAFT MINUTES OF THE BOARD OF DIRECTORS MEETING**

**Friday, July 24, 2026**

**BOARD MEMBERS/ALTERNATES IN ATTENDANCE:**

**OCTA:** William Go  
(2 votes)

**RCTC:** BRIAN BERKSON (*Vice-Chair*)  
(2 votes) KAREN SPIEGEL  
Michael Vargas

**VCTC:** Bob Engler  
(1 vote)

**METRO:** KATHRYN BARGER  
(4 votes) ARA NAJARIAN  
TIM SANDOVAL  
Pam O'Connor\*

**SBCTA:** ALAN WAPNER  
(2 votes)

\*Director O'Connor joined the meeting at 10:17 a.m.

**EX-OFFICIO MEMBERS**

**SCAG**  
**State of California**

Marty Simonoff  
Marlon Regisford



**STAFF/PRESENTERS:**

DARREN KETTLE, Chief Executive Officer

DON O. DEL RIO, General Counsel

NOELIA RODRIGUEZ, Chief of Staff

SAMANTHA CERDA, Assistant Board Clerk

RACHEL CHAIRES, Senior Manager, Customer Relations

JEFFREY DUNN, Director, Government and Community Relations

GEOFFREY FORGIONE, Associate General Counsel

HILARY KONCZAL, Chief Safety, Security, and Compliance Officer

ALBERTO LARA, Chief People Officer

ELISABETH LAZUARDI, Director, Audit

MICHELLE PENA, Board Clerk

TOM SCHAMBER, Chief Financial Officer

KATY THORPE, Principal Engineer, Capital and Third-Party Construction

Meeting minutes are prepared in a format that corresponds with the Board Meeting Agenda, which is incorporated by reference with these minutes. Board Agendas are available online at [www.metroinktrains.com](http://www.metroinktrains.com) under the Meetings and Agendas link or from the Board Clerk at (213) 452-0255.

**1. Call to Order**

The July 24, 2026 Regular Board Meeting was called to order at 10:00 a.m. by Vice-Chair Berkson in the Metro Board Room, One Gateway Plaza, 3rd Floor, Los Angeles, CA 90012.

**2. Safety Briefing**

Hilary Konczal, Chief Safety, Security, and Compliance Officer conducted the safety briefing.

**3. Pledge of Allegiance**

Director Vargas led the group in the pledge of allegiance.

**4. Roll Call**

The Board Clerk called roll and confirmed that a quorum of the Board was present. Directors Chaffee, Nguyen, Molina, Trembley, Solis, Ohlsen, Allen, Camacho, McCallon, Dutrey, and Marquez were absent.

**5. Public Comment**

The Board Clerk announced written public comments pertaining to funding will be emailed to the Board after the meeting.

**6. Approval of Consent Calendar Items**

ACTION: Upon a single motion by Director Barger and seconded by Director Engler, the Board (11-0) approved Consent Calendar items 11.A-11.F.

## **7. REGULAR CALENDAR**

### **7.A FY27 Budget Development Update**

Chief Financial Officer Tom Schamber provided an update on the status of development of the FY27 Budget. He reviewed the budget adoption timeline, presented the two alternatives that were presented to the Budget, Audit, and Finance Committee (BAFCOM) and explained that Alternative 1 was selected. He went over the dates for Alternatives 1 and 2 and explained if the budget does not secure unanimous support, additional time would be required to develop a new budget scenario and require an extension of the continuing resolution.

Director Barger asked what the turnaround is for the agencies to get the information back to staff and if there is adequate cashflow to cover any costs in the meantime.

Mr. Schamber hoped for a two-week review period before hearing back officially from each agency. There is sufficient cashflow and staff is finalizing MOUs with the member agencies to get their first quarter monies.

Director Barger asked if Metro is working with CEO Kettle and her goal is to make sure the agency limits any cuts. She wanted to ensure Metro is working with Metrolink and providing facetime to go over scenarios.

CEO Darren Kettle confirmed all the member agencies are working with Metrolink. Staff has different challenges with each counties' given targets. He added Mr. Schamber will be meeting with LA Metro staff Tuesday of next week.

Director Barger requested if there are any problems or concerns that staff alert the Board so they can be on top of it.

Director Engler asked if the continuing resolution is engaged whether there is a financial issue moving forward or any danger of getting more or less funding.

Mr. Schamber stated the agency would get the second quarter payment with the second continuing resolution so Metrolink would continue to operate at last year's funding levels, so there would not be any issue.

Mr. Kettle added one proviso is that when Metrolink bills the member agencies they pay timely as there could be pushback since OCTA's target reduction is lower than last year's.

Director Spiegel requested directors be notified if their agency hasn't paid so they can help in getting that payment made.

Director Najarian reiterated the Board told staff they don't want to study any other alternatives and want the current service levels to be the focus of the budget development process. Because it is such a short timeline and in the event that there are some shortfalls in the revenue contribution side, he asked if staff has different suggestions for the Board as to what is needed to move forward.

Mr. Kettle explained staff is looking at other savings opportunities that are low hanging fruit to sweeten the pot for the two counties that have targeted numbers. Staff is doing what they can to make sure they are as efficient as possible.

Director Go stated OCTA voted for their budget and are pretty adamant on their numbers. He underlined the importance that Metrolink meets the targets given.

Vice-Chair Berkson noted in the budget provided to the member agencies last weekend it appears that Orange County is still \$6M higher than their target. He asked what staff is doing to figure out how to get them where they need to be while not sacrificing service throughout the rest of the system.

Mr. Kettle requested a chance to work it out, explaining the week prior he presented the CEOs an option to utilize annual State Rail Assistance funds that are usually used to match capital grants. He added Metrolink did receive a bigger bump in FY26 of \$9.3M and he shared with the CEOs that he would be prepared to recommend to this Board that the agency take that full amount to offset some of those numbers and hopefully soften the blow and show Metrolink's commitment.

Adriana Rizzo made a public comment.

Director Wapner noted the focus right now is what Orange County and LA County want to do but added the other three counties cannot be forgotten. Counties' commitments may change depending on what everybody else does so staff has to make sure they stay aware of what the other counties are deciding to do.

Vice-Chair Berkson agreed because Riverside County wanted more service this year, not less service and is willing to pay the price. Since Riverside's lines go through either Orange County or LA County he hopes it can get to a point where everything works out.

The Board received and filed this item.

## **7.B Approval of an Extension of the Continuing Appropriations Resolution for FY27**

Mr. Schamber went over the two pathways for budget adoption which are dependent on the timing of key decisions and the direction of the Board. This authorization allows for additional time should the budget require significant modifications due to lack of consensus by member agencies on a draft budget based on current service levels.

Director Spiegel received confirmation the funding would continue as long as member agencies continue to make their payments.

Director Wapner stated SBCTA stands ready to support the continuing resolution but would like to see the budget for the Arrow lines come back for Board approval.

Adriana Rizzo made a public comment.

Director Go opined even though it looks like Metrolink is trying to get more time on this, it's a math problem and the variables are defined. The issue for OCTA is they have provided the levels of funding through allocated M2 tax dollars in order to continue service for the allotted timeframe. He urged continuing to work together and added delaying this further puts Metrolink in a precarious situation.

Director Spiegel agreed if the budget isn't completed by December 31 there is not going to be a solution. She appreciated LA stepping up and reconsidering and working the numbers and hoped Orange County could maybe reconsider their hard-cut position.

Director Najarian expressed deep appreciation for San Bernardino, Ventura, and Riverside counties and hoped they remain firm in their commitments. He thanked directors for working with their Boards and maintaining their levels.

Vice-Chair Berkson asked for assurance that staff is engaging with the member agencies because after this budget it's already going to be time to start the next one. He asked if there have been discussions with other member agencies to determine whether or not they're going to be pulling any additional funding for next year's budget.

Mr. Kettle explained staff is learning and is in a reset of the budget process and it is not just a member agency challenge. Metrolink knows from the letter from LA that the target will be flat for three years after this year and delivery of service is not going to go down so next year will be as difficult, if not more. The \$9.3M he mentioned is not a source that is reliable or sustainable so staff will have to wrestle with that issue which is why it has been so critically important to continue to lobby in Sacramento for State support.

Vice-Chair Berkson stated his goal is to not have any continuing resolutions next year and urged getting the budget done on time.

**ACTION:** Upon a single motion by Director Barger and seconded by Director Engler, the Board (9-2) approved a three-month extension of the Continuing Appropriations Resolution for Metrolink Operating and Capital Budgets through December 31, 2026, with Director Go voting no.

Approval of this item will provide three months of additional funding for Metrolink and Arrow without an adopted budget. Once the FY27 budgets are adopted, the amounts due from Member Agencies will be reconciled year-to-date and adjusted in their next invoice.

## **7.C Internal Audit - Proposed Fiscal Year 2027 Annual Audit Plan**

Audit Director Elisabeth Lazuardi requested Board approval of the FY 2027 Annual Audit Plan. She went over the five key steps to the development of the plan, the proposed new audits, and the carried forward and ongoing engagements. Staff will provide a status of the audit plan on a quarterly basis. At the July 10 Budget, Audit, and Finance Committee (BAFCOM) meeting in response to Director Tettemer's request for an update on process improvements related to parts challenges and mechanical failures, management will provide the Board with a quarterly report on these areas going forward. The first report will be in October.

Vice-Chair Berkson noted at the briefing he mentioned possibly adding another item to this list but wanted to bring it to the Board for consideration. With the number of issues that have been publicly blasted about Metrolink with trains having mechanical issues and leaving a train full of people stranded in the blazing sun with the fire department having to supply them water, the conversation was adding an item to the audit plan to determine if Metrolink's response teams and back up trains are doing what they need to do and when. He opined it might be a good item to add to make sure riders are being treated as quickly as possible.

Director Wapner stated it is something really important that the agency looks into but he didn't think it was an audit kind of function. He suggested Mr. Kettle take a look at this and bring it back.

Mr. Kettle explained this Board has probably not been briefed in some time about how Metrolink handles those types of actions. Between the Safety, Security, and Compliance team and Customer Experience team, staff can put together a presentation for a full Board meeting that lays out the long list of what's supposed to happen.

Director Barger asked why the materials management and maintenance of equipment unit was left out of the audit plan.

Ms. Lazuardi explained in the report there is a table identifying areas of high risk and though that one is high risk it was not selected for FY27 partly because management has an internal working group looking into this for process improvement. It was agreed when this was raised at BAFCOM that management will provide a quarterly report on those areas.

Mr. Kettle furthered there is new leadership over the area that deals with parts and operations. The agency is actually getting the needed parts for when there are failures. Situations like what occurred on Saturday are still surprises because no one knows when a fuel manifold is going to crack and render the equipment unusable. He added there are fuel manifolds and spider shafts in inventory but staff doesn't know when they're going to fail. The team is working on the parts and materials side and trying to come up with ways to reduce the parts failure issues with the various manufacturers.

ACTION: Upon a single motion by Director Barger and seconded by Director Spiegel, the Board (11-0) approved the proposed FY2027 Annual Audit Plan.

There is no budgetary impact as a result of this report.

**7.D Contract No. SP645-27 - Customer Services Center - Recommendation to Award - 22nd Century Technologies, Inc.**

Rachel Chaires, Senior Manager, Customer Relations, explained the Authority requires a new contract for Customer Service Center operations to ensure customers continue to receive timely and accurate information on schedules, fares, stations, and service disruptions. Partnering with a qualified firm will enhance customer experience, support marketing initiatives, and ensure consistent, reliable communication with riders while supporting ridership growth and customer retention. She explained the vendor selected is headquartered in Virginia with a customer service facility in Dallas and the capability to establish a local operation if needed.

Director Spiegel asked if the current company is okay with 22<sup>nd</sup> Century recruiting their staff.

Ms. Chaires explained that is a standard practice with transitioning customer service contracts; the new contractor will reach out to the incumbent to determine if there is staff that is interested in transitioning over. In response to a follow-up question she stated the incumbent is based in Brea, CA.



Director Spiegel asked if it is an issue that the new company is in Virginia.

Ms. Chaires noted there are several SOPs that will be shared and staff will be working closely with them on developing their training curriculum. They also operate customer service centers for customer service agencies across the country so she is confident that they will be able to support Metrolink successfully.

Director Wapner asked if staff has the opportunity to actually visit their customer service center to see how it operates and if it's normally done.

Mr. Kettle explained historically that's not been a practice of Metrolink's in the past to go and visit those centers. Staff generally takes references from agencies that they currently perform work for as sufficient for their ability to perform.

Director Wapner asked how staff knows they really use customer service reps that are local and not somewhere else in the world.

Ms. Chaires stated they have confirmed that their entire staff is located within the United States.

Director Sandoval noted they are based in Virginia and have a center in Dallas with the possible a local option. He asked what triggers that.

Ms. Chaires explained the company indicated that if Metrolink requires them to be local they can secure a facility here and set up operations locally.

Director Sandoval asked if there is a reason Metrolink wouldn't do that and if there is a cost associated with that.

Mr. Kettle stated so much of customer service by its nature is remote but it is nice to kick the tires locally.

Ms. Chaires added they did not indicate an additional cost but she will find out and get back to Director Sandoval.

**ACTION:** Upon a single motion by Director Sandoval and seconded by Director Engler, the Board (11-0) authorized the Chief Executive Officer to award Contract No. SP645-27 Customer Service Center to 22nd Century Technologies, Inc. (TSCTI) and approve a not-to-exceed contract funding authorization of \$8.5 million. The term of the contract shall be for three (3) years with two one-year options to extend, at the sole discretion of the Authority. This recommendation is subject to the resolution of any timely filed protest.

A portion of the amount for which contract authority is requested is included in the Proposed Operational Budget for FY2026-27 (\$1,393,230) and is contingent upon adoption thereof. Funding for subsequent years will be requested through the annual budget or an equivalent process.

## **7.E Contract No. C3167-26 - SCORE Marengo and Rancho Siding Extension Projects Construction - Recommendation to Award - Granite Construction Company**

Capital and Third-Party Construction Principal Engineer Katy Thorpe explained approval is required to award Contract C3167-26 to Granite Construction for the construction of the SCORE Marengo and Rancho Siding Extension projects to increase frequency and flexibility of future service. She explained the discrepancy between the independent cost estimate and the lowest bid being 39% over.

Director Wapner stated the 5% contingency is kind of low when it comes to a construction project and doesn't look forward to a lot of change orders

Adriana Rizzo made a public comment.

Mr. Kettle explained not been many SCORE projects have gotten out of the gate and awarding this contract today and having the funding in place means this project will be done in advance of the 2028 Olympics which will provide the ability to run 30-minute bidirectional frequencies on the San Bernardino line.

Vice-Chair Berkson noted the speaker mentioned so many SCORE projects had been cancelled or postponed and what the agency received in funding was nowhere near what was requested and asked about the delays and cancellations. He asked where Metrolink is with SCORE funding.

Mr. Kettle stated Metrolink is in phase 1 of SCORE and the original \$2.3-2.5B estimate was developed seven years ago and several factors are blowing cost estimates through the roof and staff is always trying to be creative.

**ACTION:** Upon a single motion by Director Spiegel and seconded by Director Najarian, the Board (11-0) authorized the Chief Executive Officer to award Contract No. C3167-26 for the construction of the SCORE Marengo and Rancho Siding Extension Projects to the lowest responsive and responsible bidder, Granite Construction Company, for \$51,502,175 plus 5% contract contingency of \$2,575,108.75 for a total not-to-exceed amount of \$54,077,283.75. The recommendation is subject to the resolution of any timely filed protest.

The amount for which the contract authority is requested is \$54,077,283.75 (including a 5% contingency) which is included in the Adopted SCORE Program Capital Budget FY 2026-2027 and funded with TIRCP funds granted by CalSTA through SCORE.

## **7.F System Safety, Security, and Compliance (SSSC) Department Activities - Update Q3 FY26**

Mr. Konczal provided a summary of the Authority's safety, security, and compliance activities for Q3 for Fiscal Year (FY) 2026. He went over train strikes by line and county, fare evaders and unruly passengers, reportable incidents and injuries, law enforcement activities, rule violations, and training. He gave an overview of the security preparation and coordination efforts during the World Cup.

Director Wapner noted reports of trains versus unoccupied vehicles and asked about the cause of having an unoccupied vehicle on the track.

Mr. Konczal explained most of the time if someone stalls on the track they get out of the vehicle and call 911 or sometimes the car is stolen and abandoned on the track and confirmed they have not been intentional in several years.

The Board received and filed this item.

## **7.G July Legislative Update**

Government and Community Relations Director Jeff Dunn provided a monthly update on current legislative affairs. California legislature will return on August 3 to begin the final stretch of the legislative session to take up legislative fixes to the Budget Act. In this trailer bill activity Metrolink is seeking State assistance to appropriate \$35M of operations funding. The day prior the House departed for summer recess after narrowly passing a continuing resolution to keep the government funded until December 4. He mentioned THUD bill passenger rail cuts, expiration of advance appropriations under the IJA, and Olympics security funding.

Director Spiegel asked if there has ever been a time when the Legislature didn't have a continuing resolution.

Mr. Dunn confirmed not in recent memory and it's reflective of the budgetary divide in both chambers.

Director Barger asked if staff is coordinating with LA28 for the Olympics security funding so it's a holistic approach.

Mr. Dunn stated it is a holistic approach and in meeting with FEMA, staff was focused on recommendations for Metrolink and for passenger rail. He confirmed for Director Barger that staff has a relationship with LA28.

Mr. Kettle added he and Mr. Konczal regularly coordinate with LA28 on the security side along with LA Metro.

Director Barger asked how much funding Metrolink is requesting as many agencies are working on their own without coming together and it's important to move forward with one voice so effort is coordinated. She was proud of the fact that there were no incidents at the World Cup and would like to carry that over into the Olympics.

Mr. Kettle stated FEMA has already been given \$1B and as they develop the Notice of Funding Availability there is a recognition of the role that commuter rail would play so the goal is to access those dollars directly in collaboration with all of the law enforcement that's involved.

Director Barger agreed Metrolink plays an important role in bringing people into the region for the games and would advocate that the agency is an equal member at the table.

Mr. Dunn furthered staff communicated with FEMA that there be flexibility once the Notice of Funding Availability is released to have funding move as expeditiously as possible to agencies that need it in order to allow enough time to implement for needed investments and improvements.

Adriana Rizzo made a public comment.

The Board received and filed this item.

## **8. Chief Executive Officer's Report**

Mr. Kettle provided an update on recent mechanical issues. He also shared the Finance team received a GFOA Certificate of Achievement for Excellence in Reporting for the tenth year running. He showed a video that interviewed international riders taking Metrolink for the World Cup and touched on his personal experience taking public transportation to the World Cup and volunteering in the tunnel.

## **9. Board Members' Comments – None.**

## **10. Chair's Comments**

Vice-Chair Berkson shared his experience attending the Fan Fest at Union Station after the June Board meeting and complimented Metro staff. He requested the meeting be adjourned in memory of his mother.

## **11. CONSENT CALENDAR**

### **11.A Contract No. PO1048-27 Diesel Fuel and Diesel Exhaust Fluid - Recommendation to Award - Mansfield Oil Company**

The Authority requires diesel fuel and diesel exhaust fluid (DEF) to operate its locomotives and Diesel Multiple Units (DMU). Fuel and DEF are delivered in bulk to the Authority's maintenance facilities and in regular and on-call trackside deliveries at various locations.

The Board (11-0) authorized the Chief Executive Officer to award Contract No. PO1048-27 to Mansfield Oil Company for a not-to-exceed amount of \$71,936,606.00 for the purchase of diesel fuel and diesel exhaust fluid. The term of the contract will be for a one-year base period with a single one-year option to be exercised at the sole discretion of the CEO. This recommendation is subject to the resolution of any timely filed protests.

The amount for which contract authority is requested for the first nine months of the contract (\$27,374,784) is included in the proposed Operating Budget for FY27 and is contingent upon its adoption by the Board. Funding for subsequent years (FY28 and 1st quarter of FY29) will be requested through the annual budget process. There is no financial commitment with respect to subsequent years and work will be authorized only if funding is approved.

### **11.B Quarterly Report of Contracts Awarded and Executed Under the Chief Executive Officer's Authority**

The Board of Directors approved the Authority's revised Procurement and Contracting Policies (Revised Policies) on November 8, 2019. Section 3 of the Revised Policies requires the Chief Executive Officer (CEO) to provide a quarterly report to the Board with a list of contracts awarded above \$250,000 and under the CEO's contract award authority of \$500,000.

The Board received and filed this item.

**11.C Quarterly Compensation Report - 4th Quarter of Fiscal Year 2026 - April 1, 2026, through June 30, 2026**

In compliance with HR Policy No. 2.1, Wage and Salary Administration – Salary Program Administration, staff is required to make quarterly and annual reports to the Board on compensation matters.

The Board received and filed this item.

**11.D Grants Quarterly Update - 4th Quarter, FY 2026**

Staff is providing an update of grant acquisition, reprogramming and closeout activity for the period of April 1 to June 30, 2026.

The Board received and filed this item.

**11.E Assembly Bill 1234 Meetings Attended by Members of the Board of Directors**

A report on meetings attended by members of the Board of Directors is provided in compliance with the Authority's policies and Assembly Bill 1234 (AB 1234) (Government Code Section 53232 et seq).

The Board received and filed this item.

**11.F Report of Financial Results for the 11 Months Ending May 2026**

This report covers monthly Ridership, Revenue, and Financial Operating Performance for the eleven months ended May 31, 2026. The Ridership and Revenue data emphasizes "By Line" performance. The reporting also displays the effect of farebox subsidies in this year compared to last year. Financial performance reporting emphasizes adherence to budget, particularly at the Member Agency Support Line.

The Board received and filed this item.

**12. ADJOURNMENT**

There being no further business for consideration by the Board, the meeting was adjourned at 11:36 a.m. in memory of Audrey Phyllis Reitman Berkson.

Prepared by,



Michelle Peña  
Board Clerk



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-313-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Michelle Pena, Board Clerk

**SUBJECT:** Board and Committee Meeting Dates for Calendar Year 2027

### **Issue**

Staff has prepared the Board and Committee meeting schedule for 2027 in an effort to maintain a regular meeting schedule and mitigate schedule conflicts.

### **Recommendation**

It is recommended the Board approve the 2027 Board and Committee meeting schedule as detailed in Attachment A, holding the Budget, Audit, and Finance Committee (BAFCOM) meeting on the 2nd Friday of the month, and the Board Meeting on the 4th Friday of the month.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. The calendar informs Directors and members of the public of the 2027 standing Committee and Board meetings.

### **Background**

Staff prepares an annual regular Board and Committee meeting calendar to maintain a consistent meeting schedule and decrease scheduling conflicts. Monthly Committee and Board meetings are scheduled for the 2nd and 4th Fridays, respectively, with exceptions in

November and December when no Committee meetings will be held.

### **Discussion**

The Board and Committee meeting schedule (Attachment A) details meeting dates for calendar year 2027.

Staff has taken into consideration holidays, other agencies' meeting schedules, and major industry conferences, and has altered the schedule where necessary to avoid conflicts by holding only one Board meeting on certain months as noted in the attachment. As is the practice, due to the holidays in November and December, no Committee meetings will be held those months, only Board meetings.

The Board and BAFCOM will be dark for the month of August.

Committee meetings are virtual at 9:00 a.m. and Board meetings are scheduled to be held at the Los Angeles County Metropolitan Transportation Authority (Metro) Board Room located at One Gateway Plaza, 3rd Floor, Los Angeles, CA 90012 at 10:00 a.m.

### **Budget Impact**

There is no budgetary impact as a result of this report.

### **Next Steps**

Upon approval from the Board, the Board Clerk will share the final calendar with internal and external stakeholders.

Prepared by: Michelle Pena, Board Clerk

Approved by: Noelia Rodriguez, Chief of Staff

### **Attachment(s)**

[Attachment A - DRAFT 2027 Board Calendar](#)  
[Presentation - 2027 Board and Committee Meeting Dates](#)

# 2027 METROLINK / SCRRRA BOARD & COMMITTEE MEETING CALENDAR

**METRO  
LINK**

| January |    |    |    |    |    |    |
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| 24      | 25 | 26 | 27 | 28 | 29 | 30 |
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| February |    |    |    |    |    |    |
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| March |    |    |    |    |    |    |
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| April |    |    |    |    |    |    |
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| May |    |    |    |    |    |    |
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| June |    |    |    |    |    |    |
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| July |    |    |    |    |    |    |
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| August |    |    |    |    |    |    |
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| September |    |    |    |    |    |    |
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| October |    |    |    |    |    |    |
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| November |    |    |    |    |    |    |
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| December |    |    |    |    |    |    |
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| IMPORTANT DATES AND<br>FEDERAL HOLIDAYS                                                                         |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| January 1 – New Year’s Day                                                                                      |  |  |  |  |  |  |
| January 18 – Martin Luther King, Jr. Day                                                                        |  |  |  |  |  |  |
| January 20-22 – League of California Cities<br>Mayors and Council Members Academy                               |  |  |  |  |  |  |
| February 15 – Presidents’ Day                                                                                   |  |  |  |  |  |  |
| February 28-March 2 – APTA Legislative<br>Conference                                                            |  |  |  |  |  |  |
| March 15-17 – National League of Cities –<br>Congressional City Conference                                      |  |  |  |  |  |  |
| March 31 – Farmworkers Day                                                                                      |  |  |  |  |  |  |
| April 18-21 – APTA Mobility Conference                                                                          |  |  |  |  |  |  |
| May 6-7 – SCAG Regional Conference &<br>General Assembly                                                        |  |  |  |  |  |  |
| May 31 – Memorial Day                                                                                           |  |  |  |  |  |  |
| June 6-9 – APTA Rail Conference                                                                                 |  |  |  |  |  |  |
| June 19 – Juneteenth National<br>Independence Day (observed)                                                    |  |  |  |  |  |  |
| July 4 – Independence Day (observed)                                                                            |  |  |  |  |  |  |
| September 6 – Labor Day                                                                                         |  |  |  |  |  |  |
| September 22-24 – League of California<br>Cities Annual Conference and Expo                                     |  |  |  |  |  |  |
| September 26-29 – APTA TRANSform<br>Conference and Expo                                                         |  |  |  |  |  |  |
| October 1 – Mobility 21 Summit                                                                                  |  |  |  |  |  |  |
| October 10-11 – Yom Kippur                                                                                      |  |  |  |  |  |  |
| November 11 – Veterans Day                                                                                      |  |  |  |  |  |  |
| November 17-20 – National League of<br>Cities City Summit                                                       |  |  |  |  |  |  |
| November 25-26 – Thanksgiving Holiday                                                                           |  |  |  |  |  |  |
| December 25 – Christmas Day (observed)                                                                          |  |  |  |  |  |  |
| December 31 – New Year’s Day (observed)                                                                         |  |  |  |  |  |  |
| BOARD MEETING LOCATION: One Gateway<br>Plaza, Los Angeles, CA 90012, 3 <sup>rd</sup> Floor,<br>Metro Board Room |  |  |  |  |  |  |

 Budget, Audit, and Finance Committee – 9:00 a.m.  
VIRTUAL

 SCRRRA Holiday  
Offices will be closed

 Board of Directors Meeting – 10:00 a.m.





## Board and Committee Meeting Dates for Calendar Year 2027



# 2027 METROLINK / SCRRRA BOARD & COMMITTEE MEETING CALENDAR



| January |    |    |    |    |    |    |
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| February |    |    |    |    |    |    |
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| March |    |    |    |    |    |    |
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| April |    |    |    |    |    |    |
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| May |    |    |    |    |    |    |
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| June |    |    |    |    |    |    |
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| July |    |    |    |    |    |    |
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| August |    |    |    |    |    |    |
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| September |    |    |    |    |    |    |
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| October |    |    |    |    |    |    |
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| November |    |    |    |    |    |    |
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| December |    |    |    |    |    |    |
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| 12       | 13 | 14 | 15 | 16 | 17 | 18 |
| 19       | 20 | 21 | 22 | 23 | 24 | 25 |
| 26       | 27 | 28 | 29 | 30 | 31 |    |

 Budget, Audit, and Finance Committee – 9:00 a.m.

 Board of Directors Meeting – 10:00 a.m.

 SCRRRA Holiday  
Offices will be closed

## IMPORTANT DATES AND FEDERAL HOLIDAYS

|                                                                                |
|--------------------------------------------------------------------------------|
| January 1 – New Year's Day                                                     |
| January 18 – Martin Luther King, Jr. Day                                       |
| January 20-22 – League of California Cities Mayors and Council Members Academy |
| February 15 – Presidents' Day                                                  |
| February 28-March 2 – APTA Legislative Conference                              |
| March 15-17 – National League of Cities – Congressional City Conference        |
| March 31 – Farmworkers Day                                                     |
| April 18-21 – APTA Mobility Conference                                         |
| May 6-7 – SCAG Regional Conference & General Assembly                          |
| May 31 – Memorial Day                                                          |
| June 6-9 – APTA Rail Conference                                                |
| June 19 – Juneteenth National Independence Day (observed)                      |
| July 4 – Independence Day (observed)                                           |
| September 6 – Labor Day                                                        |
| September 22-24 – League of California Cities Annual Conference and Expo       |
| September 26-29 – APTA TRANSform Conference and Expo                           |
| October 1 – Mobility 21 Summit                                                 |
| October 10-11 – Yom Kippur                                                     |
| November 11 – Veterans Day                                                     |
| November 17-20 – National League of Cities City Summit                         |
| November 25-26 – Thanksgiving Holiday                                          |
| December 25 – Christmas Day (observed)                                         |
| December 31 – New Year's Day (observed)                                        |

**BOARD MEETING LOCATION:** One Gateway Plaza, Los Angeles, CA 90012, 3<sup>rd</sup> Floor, Metro Board Room





# Recommendation

It is recommended the Board approve the 2027 Board and Committee meeting schedule, holding the Budget, Audit, and Finance Committee (BAFCOM) meeting on the 2nd Friday of the month, and the Board Meeting on the 4th Friday of the month.





**METROLINK**

Thank you.





[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

ITEM ID: 2026-299-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Paul Hubler, Chief Strategy Officer

SUBJECT: 2026 FIFA World Cup Recap

#### Issue

Staff will provide a recap of Metrolink's operations in support of the 2026 FIFA World Cup.

#### Recommendation

Receive and file.

#### Strategic Commitment

This report aligns with the Strategic Business Plan commitments of:

- **Customers are Our Business:** We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to delight them. Metrolink helped to fulfill critical regional transportation needs for both existing and new customers during the 2026 FIFA World Cup.
- **Connecting and Leveraging Partnerships:** We will forge new and enhanced relationships with our public and private partners to integrate and coordinate connecting services, providing residents throughout Southern California with better, seamless, sustainable alternatives to driving. Building strong partnerships with transportation providers in the region, as well as the FIFA World Cup host committee, were key to providing a reliable, seamless transportation experience during the 2026 FIFA World Cup.

## **Background**

The 2026 FIFA World Cup took place in 16 host cities across North America between June 11 and July 19, 2026. Los Angeles (SoFi) stadium in Inglewood, California, hosted eight of the 104 matches. In addition to the ticketed matches at SoFi stadium, multiple fan fests and watch parties were also hosted throughout the region and attracted a significant number of spectators, including a four-day fan zone at Los Angeles Union Station (LAUS). To accommodate the increased regional travel demand during the World Cup, Metrolink utilized a combination of existing and special event trains, along with enhanced customer service and security staffing.

## **Discussion**

Metrolink's World Cup service plan utilized existing trains as well as 48 special trains that operated over a 10-day period to coordinate with World Cup event schedules. This service plan allowed Metrolink passengers to travel to and from all eight World Cup matches as well as official FIFA fan zones at LAUS, the Coliseum, Pomona Fairplex and downtown Burbank. Special trains operated on the Antelope Valley, Orange County, San Bernardino, Ventura County and 91/Perris Valley lines to fill gaps in existing schedules, primarily on weekends and later in the evening on weekdays, with outbound special trains departing Union Station as late as midnight.

Metrolink developed its World Cup service plan in close coordination with the Los Angeles County Metropolitan Transportation Authority (Metro) to ensure connectivity with Metro's World Cup Enhanced Service to SoFi stadium. Metrolink passengers were able to transfer to Metro's World Cup Enhanced Service for free at both LAUS and the Anaheim Regional Transportation Intermodal Center (ARTIC). Metro carried a total of 36,768 passengers from LAUS and 18,310 from ARTIC to and from SoFi stadium.

Metrolink's special World Cup service was promoted via a dedicated landing page on the Metrolink website, email marketing, digital advertising, organic and paid social media posts, station posters and earned media to drive awareness, engagement and ridership. To support the World Cup campaign, Metrolink also designed custom soccer-themed jerseys for more than 50 employee volunteers who were posted at key stations to support riders. The distinctive uniforms made staff easily identifiable, helping riders quickly locate help for directions, trip information and customer assistance throughout the event.

Metrolink's operational performance during the 39-day World Cup period was strong, with notable growth in ridership and ticket sales. Highlights include:

- Systemwide boardings increased 12 percent year-over-year despite a nearly 20 percent reduction in baseline weekday service from the prior year.
- Weekend ridership increased 26 percent compared to the six prior weekends.
- The event drove a significant increase in new Metrolink mobile accounts, with 25,000 new accounts generated during the World Cup period, a 22 percent increase over the prior six-week period, indicating a significant number of new riders utilizing the Metrolink system.
- Weekend ticket sales increased by 12 percent, outperforming overall growth and demonstrating strong demand for event-related travel.

Metrolink enhanced its law enforcement and private security presence during the World Cup with a 300 percent increase in Los Angeles County Sheriff's staffing on event days, as well as additional private security officers onboard trains and at LAUS. The additional staffing was funded through Federal Emergency Management Agency (FEMA) grants. Metrolink also coordinated with local law enforcement agencies in station cities to increase patrol checks around stations and along the railroad right-of-way. Member agencies and station cities also provided enhanced security staffing at select outlying stations.

Metrolink safety and security staff were positioned at the joint Emergency Security Operations Center hosted by Metro to ensure seamless interagency coordination in the event of an incident; however, Metrolink experienced no significant World Cup-related safety or security incidents during the tournament.

Metrolink also deployed additional customer service staff at LAUS, as well as employee volunteers at outlying stations to assist passengers with ticket purchases and wayfinding, which was well received by both new and existing riders.

### **Next Steps**

The World Cup provided valuable insights and lessons learned that will be applied to future large-scale events, including the 2028 Olympic and Paralympic Games, where Metrolink will again play a central role in supporting regional mobility. Key lessons learned include the importance of early operational planning, interagency coordination, expanded volunteer ambassador programs, enhanced digital communications and wayfinding, and scalable security deployments.

Prepared by: Michael Litschi, Director of Special Projects

Approved by: Paul Hubler, Chief Strategy Officer

### **Attachment(s)**

[Presentation - World Cup 2026 Recap](#)





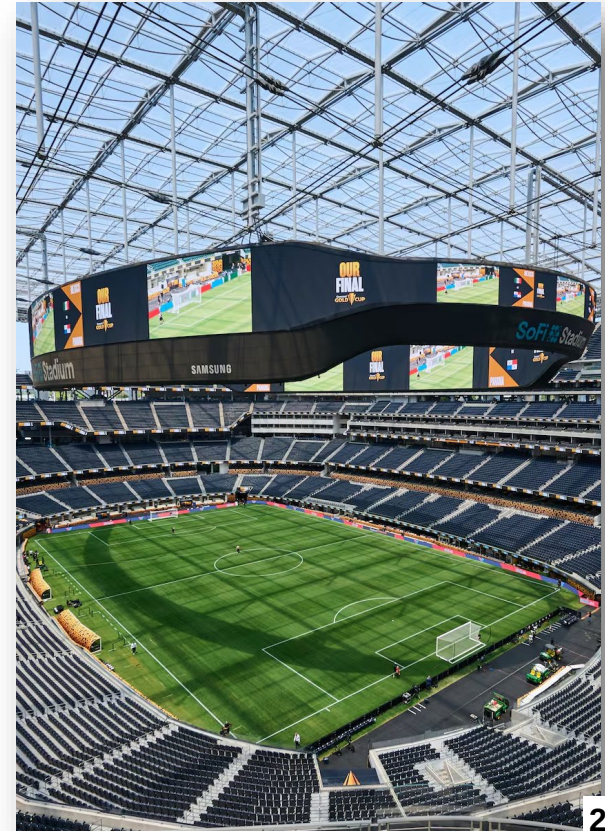
**METROLINK**

**2026 FIFA World Cup Recap**

*Receive and file* **284**

# Metrolink World Cup Service Plan

- Special trains for evening trips and weekends on 8 match days + 2 days for LAUS fan zone
- Increased law enforcement and private security presence (grant funded)
- Increased customer relations and employee volunteers
- Targeted marketing campaign and landing page
- Pre-event tabletop and full-scale security exercises
- Free transfers to Metro direct bus service to SoFi at LAUS and ARTIC



# 2026 World Cup – By the Numbers



WEEKEND  
BOARDINGS

**↑ 26%**

vs. six prior weekends



NEW MOBILE  
ACCOUNTS

**25,000**  
(+22%)



SYSTEMWIDE  
BOARDINGS

**↑ 12%**

vs. prior year



SAFETY/SECURITY  
INCIDENTS

**0**

World Cup-related  
incidents



VOLUNTEER  
AMBASSADORS

**50+**











# Union Station Fan Zone



METROLINK



# Metro Connection to SoFi



METROLINK





# Marketing Campaign

## Campaign Creative



Vinyl Banner



Social Post



Station Poster

# Earned Media

## Strategy:

- Deployed press release, featuring a quote from Board Chair Doug Chaffee, on Thursday, May 21
- Leveraged relationship with LA Metro, the official transportation partner to FIFA, to ensure Metrolink was included in their press materials and talking points
- Worked with Telemundo on a piece highlighting our special service and connectivity to LA Metro buses from LA Union Station to the stadium

## Results:

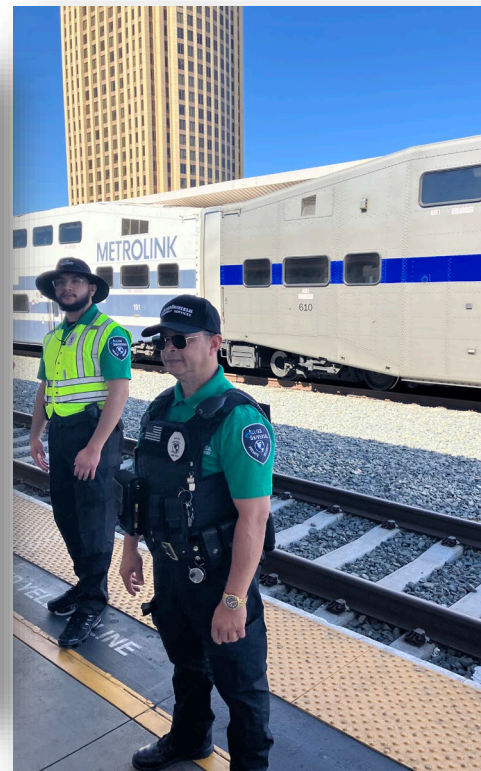
- Media Mentions: 184 (123 online/print, 44 TV, 16 radio)
- Audience Reach: 474,356,102
- Ad-Equivalent Value: \$5,724,336

**METROLINK**





# Security and Law Enforcement





# Employee Volunteers



# Key Takeaways

- Volunteer program valuable – for staff and fans
- Importance of interagency coordination
- Spare equipment helpful during service disruptions
- Good security presence at stations and along ROW
- Passengers arriving earlier and leaving earlier than expected
- New rider confusion between Amtrak/MetroLink/Metro
- Pre-event briefings with station cities were useful
- Difficult to plan for unofficial fan zones/watch parties
- Last-minute event schedule changes difficult

# World Cup vs. 2028 Games

**70,400** SPECTATOR TICKETS PER DAY

**1**

Venue  
Zones

**8**

Matches /  
Sessions

**1**

Max  
Consecutive  
Event Days

**1**

Sports

**8**

Event  
Days

**333**

Buses  
Required

**700,000** SPECTATOR TICKETS PER DAY

**21**

Venue  
Zones

**1,040**

Matches /  
Sessions

**19**

Max  
Consecutive  
Event Days

**30**

Sports

**34**

Event  
Days

**1,700**

Buses  
Required



*The 2028 Games are dramatically larger in scale than the FIFA World Cup in LA*





**METROLINK**

Thank you.





[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-286-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Alberto Lara, Chief People Officer

**SUBJECT:** Supplemental Benefits for Authority Employees

**Issue**

Approval is needed to enter into agreements for Life, Accidental Death & Dismemberment (AD&D), and Long-Term Disability insurance, family and medical leave administration and voluntary benefits for Authority employees.

**Recommendation**

It is recommended that the Board authorize the Chief Executive Officer to enter into an agreement with Delta Dental for dental insurance; Vision Service Plan (VSP) for vision insurance; Prudential for life, AD&D, and LTD insurance, voluntary benefits, and family and medical leave administration; and Aflac for Short-term Disability for employees enrolled in the plan as of December 31, 2026 only.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. Staff's recommendations contribute to this goal by ensuring that the Authority provides a competitive benefits package to recruit, retain and invest in a qualified and diverse workforce.



## **Background**

In addition to the medical insurance offered to employees through the California Public Employees Retirement System (CalPERS), the Authority currently offers the following supplemental benefits and services:

- Dental insurance provided by Delta Dental
- Vision insurance provided by Vision Service Plan (VSP)
- Life, Accidental Death and Dismemberment (AD&D) and Long-Term Disability (LTD) insurance provided by Mutual of Omaha
- Individual Disability Insurance (IDI) provided by Unum
- Accident, Hospital Indemnity, Critical Illness and Short-term Disability insurance provided by Aflac
- Health advocacy services provided by Health Advocate
- Flexible Spending Account and Consolidated Omnibus Budget Reconciliation Act (COBRA) administration services provided by WEX

The current agreements with Delta Dental, VSP, and Mutual of Omaha will expire on December 31, 2026. The remaining insurance plans and services are in the middle of multi-year agreements.

## **Discussion**

Staff asked Mercer Health and Benefits (“Mercer”), the Authority’s benefits broker/consultant, to obtain renewal proposals from Delta Dental and VSP for our current plans, with no plan design changes.

Additionally, staff requested that Mercer market the life, AD&D and LTD coverages provided by Mutual of Omaha and the voluntary benefits provided by Aflac. Recently there have been service and billing issues with Aflac. Although there have been no issues with Mutual of Omaha, it is common to consolidate life/disability and voluntary benefit carriers for administrative efficiencies, integration and improved resources & capabilities.

Mercer issued a Request For Proposal to Mutual of Omaha, Unum, Prudential and SunLife based on their ability to offer all coverages, integration capabilities with ADP, the Authority’s HR/Payroll system, and their ongoing service model. All carriers submitted proposals for employer-paid Life, AD&D and LTD insurance, and employee-paid Voluntary Term Life, Voluntary AD&D, Accident, Critical Illness, Hospital Indemnity, and Short-term Disability. Their proposals and premium rates assume that all lines of coverage are written with the same carrier.

Mercer also requested that the carriers provide pricing on family and medical leave administration, which is currently handled in-house. In recent years, the Authority has seen a steady increase in the number leave requests and the complexity of leave requests. A Third-Party Administrator (TPA) will handle the time-consuming processes of tracking leave time, communicating with employees, sending required legal notices within stringent deadlines and ensuring compliance with applicable and overlapping federal and state leave laws, thus reducing staff's time spent on manual leave administration processes.

Below are the results of Mercer's marketing and negotiations.

### **Dental Insurance**

Mercer obtained a renewal quote from Delta Dental. They proposed no increase to the PPO plan premiums and a 5 percent increase to the HMO plan premiums. Based on current enrollment data, the total annual increase will be 0.09 percent or \$358 because there are only 25 employees enrolled in the HMO plan. The premium rates are guaranteed for two (2) years, through December 31, 2028. Details of their proposal can be found in Attachment A.

### **Vision Insurance**

Mercer obtained a renewal quote from VSP. They proposed a 9 percent decrease to the Basic plan premiums and a 7 percent decrease to the Buy-Up plan premiums. Based on current enrollment data, the total annual savings to the Authority will be 9.1 percent or approximately \$4,000. Details of their proposal can be found in Attachment B.

### **Employer-Paid Life, AD&D, and LTD Insurance, and Family and Medical Leave Administration**

For employer-paid life, AD&D and LTD, the proposed plan designs are generally comparable to the current plan designs. Mutual of Omaha proposed an overall rate decrease of 6 percent, which represents a \$13,333 savings to the Authority based on current enrollment data. Sunlife proposed an overall rate decrease of 19 percent, which represents a \$42,147 savings to the Authority based on current enrollment data. Prudential proposed an overall rate decrease of 30 percent, which represents a \$65,595 savings to the Authority based on current enrollment data. Unum was uncompetitive, with a 16 percent or \$35,496 increase based on current enrollment data.

Three of the four carriers provided pricing for family and medical leave administration in their proposals. SunLife has not yet provided rates. Below is the total annual cost proposed by each carrier, based on the current number of employees:

Mutual of Omaha: \$10,550

Unum: \$11,525

Prudential: \$15,456

SunLife: TBD

Although Prudential's total annual cost for family and medical leave administration is higher than the other two carriers, their overall total annual cost, including the employer-paid Life, AD&D, and LTD Insurance, is the lowest and represents a 23 percent or \$50,139 total annual savings to the Authority. The premium rates for all plans are guaranteed for three (3) years, through December 31, 2029, except Short-Term Disability, which is guaranteed for two (2) years through December 31, 2028. A detailed comparison of the costs proposed by each carrier can be found in Attachment C.

### **Employee-Paid Voluntary Term Life, Voluntary AD&D, Accident, Critical Illness, Hospital Indemnity, and Short-Term Disability**

For Voluntary Life/AD&D, Accident, Critical Illness, and Hospital Indemnity, the proposed plan designs are generally comparable to our current plan designs, with some differences in individual benefit areas. However, there are more significant differences in the Short-Term Disability plan designs proposed. Prudential's proposed weekly benefit amounts are the lowest of all the carriers. It is also the only proposal with two plan options – for Railroad Retirement Employees (RRB) and All Other Employees. The RRB Employee plan has a higher benefit amount because they do not contribute to the California State Disability Insurance (SDI) program and therefore would not have this other income replacement option if they were to become disabled. The premium rates for all voluntary plans are guaranteed for three (3) years, through December 31, 2029.

If Prudential is selected, the Authority has the option to renew their agreement with Aflac for Short-term Disability only, for employees enrolled in the plan as of December 31, 2026, if they do not wish to switch to the Prudential plan.

Additional details on the employee-paid voluntary benefits can be provided upon request.

### **Summary and Recommendations**

Staff recommends that the Board authorize the CEO to renew the agreement with Delta Dental for dental insurance, for a total annual employer cost of \$397,952 based on current enrollment data, which represents a \$358 increase. Staff also recommends that the Board authorize the CEO to renew the agreement with VSP for vision insurance, for a total annual cost of \$38,981 based on current enrollment data, which is about \$4,000 less than the current cost. Both Delta Dental and VSP have provided outstanding service to Authority employees and their families for over 22 years.

Additionally, staff recommends that the Board authorize the CEO to enter into an agreement with Prudential for Life, AD&D, LTD, Voluntary Term Life, Voluntary AD&D, Accident, Critical Illness, Hospital Indemnity, and Short-Term Disability insurance, and family and medical leave administration. Based on pricing and capabilities, Prudential offers the strongest overall proposal, with broadly competitive pricing and designs for both employer-paid coverages and voluntary products. The total annual cost for Prudential's employer-paid benefits and family and medical leave administration is \$168,370, which is approximately \$50,139 less than the current cost of the employer-paid life/disability benefits.

Prudential offers Electronic Data Interchange (EDI) with ADP for the transmittal of enrollment data, and Application Programming Interface (API) connectivity to simplify the Evidence Of Insurability (EOI) application process, which will improve the administrative experience for both employees and the Authority. Prudential has a strong, high touch implementation experience and ADP integration support. While certain carriers may be stronger in individual benefit areas, Prudential appears to be the most balanced single-carrier option when all lines are considered together.

Additionally, staff recommends that the Board authorize the CEO to enter into an agreement with Aflac for Short-term Disability insurance only, for employees enrolled in the plan as of December 31, 2026 who do not want to switch to Prudential. Currently, there are 17 employees enrolled in the Aflac Short-term Disability plan.

In addition to the above recommendations, staff is recommending that the Authority eliminate Individual Disability Insurance (IDI) provided by Unum, which supplements the basic LTD benefit of higher wage earners to ensure that they receive the same benefit as other employees, which is 60 percent of monthly earnings. Staff is making this recommendation due to the unpredictable nature of the IDI premium increases, which are based on a formula that takes several factors into consideration including employee salary and age. Therefore, premiums will continue to increase each year due to the salaries and ages of current enrollees going up and additional employees becoming eligible for the benefit when they reach the minimum salary requirement. While staff cannot determine the total annual savings, it will be at least \$44,000, which is the 2026 annual premium.

The recommendations for the 2027 supplemental benefits renewal represent an estimated total annual savings to the Authority of about \$98,000 based on current enrollment data. This is a result of the approximately \$4,000 decrease in the VSP premium, approximately \$50,000 decrease in the employer-paid life/AD&D/LTD premium, and approximately \$44,000 savings from eliminating the IDI benefit.

### **Budget Impact**

The amount for which contract authority is requested is included in the proposed Operating Budget for FY2026-27 and is contingent upon the adoption of the FY27 Operating Budget.

### **Next Steps**

With Board approval, the Chief Executive Officer will enter into an agreement with Delta Dental for dental insurance; Vision Service Plan (VSP) for vision insurance; Prudential for life, AD&D, and LTD insurance, voluntary benefits, and family and medical leave administration; and Aflac for Short-term Disability for employees enrolled in the plan as of December 31, 2026 only.

Prepared by: Roxanne Randolph, Director, Human Resources

Approved by: Alberto Lara, Chief People Officer

### **Attachment(s)**

[Attachment A - Delta Dental Renewal Proposal](#)

[Attachment B - VSP Renewal Proposal](#)

[Attachment C - Comparison of Proposals for Life, ADD, LTD and FML Admin](#)

[Presentation - Supplemental Benefits for Authority Employees](#)

# Attachment A

## Delta Dental Renewal Proposal

| <b>DPPO</b>               | <b>2026 Enrollment</b> | <b>2026 Rates</b> | <b>2026 ER Cost</b> | <b>2026 EE Cost</b> | <b>2027 Rates Negotiated</b> | <b>2027 ER Cost</b> | <b>2027 EE Cost</b> |
|---------------------------|------------------------|-------------------|---------------------|---------------------|------------------------------|---------------------|---------------------|
| Employee only             | 74                     | \$61.33           | \$61.33             | \$0.00              | \$61.33                      | \$61.33             | \$0.00              |
| Employee + 1 Dependent    | 48                     | \$109.27          | \$109.27            | \$0.00              | \$109.27                     | \$109.27            | \$0.00              |
| Employee + Family         | 124                    | \$183.50          | \$183.50            | \$0.00              | \$183.50                     | \$183.50            | \$0.00              |
| <b>DPPO Total</b>         | <b>246</b>             | <b>\$390,449</b>  | <b>\$390,449</b>    | <b>\$0</b>          | <b>\$390,449</b>             | <b>\$390,449</b>    | <b>\$0</b>          |
| <b>DHMO</b>               |                        |                   |                     |                     |                              |                     |                     |
| Employee only             | 11                     | \$13.54           | \$13.54             | \$0.00              | \$14.22                      | \$14.22             | \$0.00              |
| Employee + 1 Dependent    | 7                      | \$26.28           | \$26.28             | \$0.00              | \$27.59                      | \$27.59             | \$0.00              |
| Employee + Family         | 7                      | \$37.51           | \$37.51             | \$0.00              | \$39.39                      | \$39.39             | \$0.00              |
| <b>DHMO Total</b>         | <b>25</b>              | <b>\$7,146</b>    | <b>\$7,146</b>      | <b>\$0</b>          | <b>\$7,503</b>               | <b>\$7,503</b>      | <b>\$0</b>          |
| <b>Dental Grand Total</b> | <b>271</b>             | <b>\$397,594</b>  | <b>\$397,594</b>    | <b>\$0</b>          | <b>\$397,952</b>             | <b>\$397,952</b>    | <b>\$0</b>          |
| <b>\$ Change</b>          |                        |                   |                     |                     | \$358                        |                     |                     |
| <b>% Change</b>           |                        |                   |                     |                     | 0.09%                        |                     |                     |



## Attachment B

### Vision Service Plan Renewal Proposal

|                            | 2026<br>Enrollment | 2026<br>Rates   | 2026 ER<br>Cost | 2026 EE<br>Cost | 2027 Rates<br>Final | 2027<br>ER Cost | 2027<br>EE Cost |
|----------------------------|--------------------|-----------------|-----------------|-----------------|---------------------|-----------------|-----------------|
| <b>Vision Basic</b>        |                    |                 |                 |                 |                     |                 |                 |
| Employee only              | 54                 | \$7.28          | \$7.28          | \$0.00          | \$6.62              | \$6.62          | \$0.00          |
| Employee + 1<br>Dependent  | 36                 | \$11.31         | \$11.31         | \$0.00          | \$10.28             | \$10.28         | \$0.00          |
| Employee + Family          | 93                 | \$17.95         | \$17.95         | \$0.00          | \$16.31             | \$16.31         | \$0.00          |
| <b>Vision Basic Total</b>  | <b>183</b>         | <b>\$29,636</b> | <b>\$29,636</b> | <b>\$0</b>      | <b>\$26,933</b>     | <b>\$26,933</b> | <b>\$0</b>      |
| <b>Vision Buy Up</b>       |                    |                 |                 |                 |                     |                 |                 |
| Employee only              | 31                 | \$18.68         | \$7.28          | \$11.40         | \$17.31             | \$6.62          | \$10.69         |
| Employee + 1<br>Dependent  | 19                 | \$29.02         | \$11.31         | \$17.71         | \$26.89             | \$10.28         | \$16.61         |
| Employee + Family          | 37                 | \$46.03         | \$17.95         | \$28.08         | \$42.66             | \$16.31         | \$26.35         |
| <b>Vision Buy Up Total</b> | <b>87</b>          | <b>\$34,003</b> | <b>\$13,257</b> | <b>\$20,746</b> | <b>\$31,511</b>     | <b>\$12,048</b> | <b>\$19,463</b> |
| <b>Grand Total</b>         | <b>270</b>         | <b>\$63,638</b> | <b>\$42,892</b> | <b>\$20,746</b> | <b>\$58,444</b>     | <b>\$38,981</b> | <b>\$19,463</b> |
| <b>\$ Change</b>           |                    |                 |                 |                 | <b>-\$5,194</b>     | <b>-\$3,911</b> | <b>-\$1,283</b> |
| <b>% Change</b>            |                    |                 |                 |                 | <b>-8.2%</b>        | <b>-9.1%</b>    | <b>-6.2%</b>    |

## Attachment C

### Comparison of Proposals for Life, AD&D, and LTD Insurance, and Family and Medical Leave Administration

| Line of Coverage      | 2026<br>Current | 2027<br>Proposed | 2027 Proposed |            |            |
|-----------------------|-----------------|------------------|---------------|------------|------------|
|                       | Mutual of Omaha |                  | Unum          | Prudential | Sun Life   |
| Basic Life            | \$78,050        | \$68,589         | \$75,685      | \$54,398   | \$49,668   |
| Basic AD&D            | \$16,556        | \$16,556         | \$11,826      | \$9,461    | \$13,245   |
| Long Term Disability  | \$123,903       | \$120,031        | \$166,495     | \$89,055   | \$113,449  |
| Life/Disability Total | \$218,509       | \$205,176        | \$254,005     | \$152,914  | \$176,362  |
| % Change              |                 | -6%              | 16%           | -30%       | -19%       |
| \$ Change             |                 | (\$13,333)       | \$35,496      | (\$65,595) | (\$42,147) |
|                       |                 |                  |               |            |            |
| FML Administration    | N/A             | \$10,550         | \$11,525      | \$15,456   | TBD        |
| Total Incl. FML Admin | N/A             | \$215,727        | \$265,530     | \$168,370  | TBD        |
| % Change              |                 | -1%              | 18%           | -23%       | TBD        |
| \$ Change             |                 | (\$2,782)        | \$47,021      | (\$50,139) | TBD        |





# METROLINK

## Supplemental Benefits for Authority Employees



# Issue

Approval is needed to enter into agreements for:

- Dental insurance
- Vision insurance
- Life insurance
- AD&D insurance
- Long-Term Disability (LTD) insurance
- Family & Medical Leave (FML) administration
- Voluntary benefits
  - Accident, Critical Illness, Hospital Indemnity, and Short-term Disability insurance





**METROLINK**

# Background

- The current agreements with Delta Dental, VSP, and Mutual of Omaha will expire on 12/31/26
- Staff requested that Mercer:
  - Obtain a renewal proposal from Delta Dental and VSP for the current plans, with no plan design changes
  - Market the life, AD&D and LTD coverages provided by Mutual of Omaha and the voluntary benefits provided by Aflac
  - Obtain pricing on family and medical leave administration
  - Terminate the agreement with Unum for Individual Disability Insurance





# Results of Marketing and Negotiations

- Delta Dental proposed a slight increase to the dental HMO premiums, which represent a total annual increase of less than \$400
- VSP proposed a premium decrease, which represents a total annual savings of approximately \$4,000
- Proposals were received from Mutual of Omaha, Prudential, Sunlife and Unum for life, AD&D, LTD, FML administration and voluntary benefits.
  - Prudential offered the strongest overall proposal with a total annual savings to the Authority of approximately \$50,000



# Recommendations

- It is recommended that the Board authorize the CEO to enter into an agreement with:
  - Delta Dental for dental insurance for a total annual employer cost of \$397,952
  - VSP for vision insurance for a total annual employer cost of \$38,981
  - Prudential for life, AD&D, and LTD insurance, voluntary benefits, and family and medical leave administration for a total annual employer cost of \$168,370
  - Aflac for Short-term Disability at no cost to the Authority



**METROLINK**

## Total Estimated Savings to Authority

The recommendations for the 2027 supplemental benefits renewal represent an estimated total annual savings to the Authority of about \$98,000 based on current enrollment data.





**METROLINK**

Thank you.





**ITEM ID:** 2026-209-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** First Annual Review of the Working Capital Fund (WCF)

**Issue**

SCRRA Working Capital Fund Policy - FIN 9.7 indicates the following:  
*"The Working Capital Fund status shall be reviewed annually by SCRRA Board of Directors. The Member Agencies and SCRRA Board of Directors will consider the adequacy of the Working Capital Fund amount and will recommend any changes, as deemed necessary."*

The Working Capital Fund Standard Operating Procedure (SOP) further clarifies the first annual review shall take place in the September 2026 Board reporting cycle. The purpose of this Agenda item is to present summary WCF activity as well as anticipated future needs, in order to facilitate the Board's consideration of any necessary changes.

**Recommendation**

The Budget, Audit, and Finance Committee recommended (4-0) the Board maintain the current level of deposits in the WCF at \$50 million due to anticipated growth in Capital Program incurred expenses in FY27. No changes are recommended to the WCF Policy or Statement of Operating Procedures (SOP) at this time.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on



subsidy while bringing our system into a state of good repair, investing in the development of our employees and maintaining fiscal sustainability.

## **Background**

In April of 2024, the SCRRA Board of Directors approved the establishment of the \$50 million Working Capital Fund (WCF). Pursuant to the Policy, the goal of the WCF shall be to begin a separation of Operating and Capital Funds, and to provide liquidity to fund the reimbursement cycle for grant-funded capital projects.

Member Agencies were invoiced for their respective WCF allocation deposits, based upon Track Miles Owned, in June of 2024. \$50,000,000 was collected and deposited in a segregated, interest-bearing money market demand account at U.S. Bank specifically established for this purpose. Funds in this account are not commingled with Operating Funds or used for operating expenses, nor are they used for the payment of any expenses pursuant to Third-Party Agreements or any other advance-funded capital project. WCF advance and repayment transactions are governed by the Policy and a detailed Standard Operating Procedures document, which have been provided to the Member Agencies. Both documents are attached for reference.

## **Discussion**

The final Member Agency deposit was received into the WCF bank account in April of 2025. Subsequently, appropriate internal financial controls, processes, and responsibilities were finalized and documented within the detailed Standard Operating Procedure manual. A draft version of this manual was provided to all Member Agencies, and the final SOP was published October 20, 2025. WCF activity then began in earnest with October month capital program activity. To date, four out of the five Member Agencies have executed formal Agreements relating to the WCF. SCRRA is in compliance with the provisions of these Agreements, the Policy, and the SOP, including the provision to disburse annual interest within 90 days of each fiscal year end. FY26 interest earned was disbursed to Member Agencies in early August 2026.

The WCF bank account balance as of July 31, 2026, was \$25,051,558.76, and a summary reconciliation of its activity since inception is provided in the table below. In the eight months since WCF activity began, approximately 250 Capital Projects have received advance funding of over \$80 million. Had the WCF not been initiated, these expenses would have been advance-funded with operations or emergency Board Threshold funding. Prior to the WCF, the Board's requirement to maintain \$50 million in available cash was frequently breached within Q1 and Q2 as SCRRA struggled to fund both Operations and Capital cash outlays prior to Member Agency Annual MOU execution and given typical grant reimbursement timetables. This led to pressure to delay vendor payments and overall strained SCRRA liquidity. Since WCF inception, the \$50 million Board Threshold has not been breached, and Operations liquidity has improved substantially. The internal processes and financial controls established via the WCF have proven sound and no significant issues have arisen since inception.

| <b>WCF Cash Flow Activity, through July 31,<br/>2026<br/>(\$ in millions)</b> |        |
|-------------------------------------------------------------------------------|--------|
|                                                                               |        |
| Beginning Deposit Balance                                                     | \$50.0 |
| Less: Capital Expenses                                                        | (80.4) |
| Plus: Capital Collections                                                     | 54.3   |
| Plus: Interest Received                                                       | 2.2    |
| Less: Interest Paid thru 7.31                                                 | (1.0)  |
| Ending July Balance:                                                          | \$25.1 |

SCRRA recommends maintaining the Working Capital funding at its current level of \$50 M for FY27. This level shall be reviewed every year by the Board of Directors. This recommendation is due to anticipated growth in Capital Program cash flows.

### **Budget Impact**

There is no anticipated Budget impact associated with this report. However, should the WCF facility be terminated or the funding commitment reduced, there would be negative liquidity impacts related to the Operating Budget as operating funds would be required to resume pre-funding of Capital program expenses.

### **Next Steps**

Board approval of the continuation of the WCF is not required by Policy. However, the Board may take this opportunity to propose changes to the WCF Policy and the deposit amount. The next annual review of the WCF is scheduled for September of 2027.

Prepared by: Tom Schamber, Chief Financial Officer

Approved by: Tom Schamber, Chief Financial Officer

### **Attachment(s)**

[Attachment A - Working Capital Fund Policy](#)

[Attachment B - WCF SOP](#)

[Presentation - Working Capital Fund Annual Review](#)



## ***Southern California Regional Rail Authority Finance Policies***

**TITLE:** Working Capital Fund Policy

**NO.** FIN – 9.7

**ORIGINATING UNIT:** Finance Department

**EFFECTIVE DATE:** April 2024

**REVISION:**

### **PURPOSE**

To provide guidelines for the establishment and maintenance of a Working Capital Fund to support Capital Programs that are funded by Federal, State, and Local grants.

### **APPLICATION**

This policy applies to all SCRRA staff responsible for tasks impacting the Working Capital Fund.

### **POLICY STATEMENT**

SCRRA shall establish and maintain a Working Capital Fund unencumbered and uncommitted at a level of \$50,000,000. The Working Capital Fund is solely intended to serve a dynamic role and is available to be utilized as needed, devoted only to costs related to capital projects which are reimbursable.

### **STRATEGIES**

1. Working Capital Fund shall be accounted for separate and apart from Operating Funds.
2. A separate bank account shall be established for the Working Capital Fund.
3. The funds will be invested in accordance with the SCRRA Investment Policy FIN-3.1 and the need to provide liquidity and stable principal value.
4. Records shall be maintained which reflect the contribution of each Member Agency plus any interest earned on the Working Capital Funds.



5. All interest earned shall be allocated to the Working Capital Fund based on Member Agency Track Miles Owned.
6. The Working Capital Fund goal shall be to maintain a separation of Operating and Capital Funds, and to provide liquidity to fund the reimbursement cycle for grant funded Capital Programs.

## SOURCE

The \$50,000,000 of Working Capital Funds shall come from the Member Agencies' allocation based on Track Miles Owned. Any additions to this Fund shall be approved and provided by the Member Agencies with the additional amount allocated based on track miles owned existent at the time of the addition.

## USES

1. Funds to cover reimbursable expenses for capital projects for which grants have been awarded.  
**Working Capital funds shall not be used for payment of operating expenses.**

## GOVERNANCE

- Procedures for approving use of the Working Capital Funds are described in the Working Capital Fund Standard Operating Procedure
- Creation of New Statement of Working Capital Funds to be presented to, in order, the Member Agency Advisory Committee (MAAC), Audit and Finance Committee (AFCOM), and the Board of Directors. Monthly reporting to CEO & Executive Leadership Team
- Quarterly Reporting to MAAC, AFCOM, and SCRRA Board of Directors

## MAINTENANCE

At the end of each fiscal year, interest shall be calculated and assigned to the Member Agency portion of the Working Capital Fund with allocation based on Track Miles Owned as of the most recent addition to the Working Capital Fund. The status of the Working Capital Fund shall be calculated at the end of each fiscal year based upon audited financial results.

The Working Capital Fund status shall be reviewed annually by SCRRA Board of Directors. The Member Agencies and SCRRA Board of Directors will consider the adequacy of the Working Capital Fund amount and will recommend any changes, as deemed necessary.



**RESPONSIBILITIES**

**Board of Directors** is responsible for reviewing the Working Capital Fund Reports and determining that the expended funds are accomplishing the objectives contained therein.

**Chief Executive Officer (CEO)** reviews and approves the monthly Working Capital Fund report ensuring that the proposed Working Capital Fund reports are submitted to the Board of Directors and the Member Agencies within the required schedules.

**Chief Financial Officer (CFO)** is responsible for supervising and providing guidance and oversight to the Finance Department in the establishment and maintenance of the Working Capital Fund and all related analysis and presentations.

**Chiefs** are responsible for adhering to the Working Capital Fund Standard Operating Procedure.

**Member Agencies** are responsible for reviewing their share of the SCRRA’s Working Capital Fund.

**REFERENCES**

SCRRA Investment Policy FIN-3.1

**POLICY HISTORY**

April 2024 – FIN – 9.7

| Approvals        |               |                         |
|------------------|---------------|-------------------------|
| Department Chief | Legal Counsel | Chief Executive Officer |





# **Working Capital Fund**

## **FIN – 9.7**

### **Standard Operating Procedures**

**October 20, 2025**

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## Introduction and Scope

Working Capital Fund Policy, FIN 9.7, was approved by the SCRRA Board of Directors in April of 2024. Pursuant to the Policy, the primary goals of the Working Capital Fund (WCF) are to transition, to the extent possible, the separation of operating and capital funds, and to provide dedicated liquidity to fund the reimbursement cycle for eligible grant and Member Agency funded capital and rehabilitation projects (Capital Program). The purpose of this Standard Operating Procedure (SOP) document is to provide SCRRA staff responsible for the WCF with procedures to manage and report WCF activity, consistent with FIN 9.7.

## WCF Funding

Eligible Projects, as further delineated herein, shall be provided with advance funding of \$50,000,000 to pay eligible capital expenses prior to grant reimbursement.

## WCF Eligible Projects

As stated in FIN 9.7, Working Capital Funds shall not be used to pay operating expenses under any circumstances. SCRRA shall utilize the WCF only for reimbursable capital and rehabilitation projects for which no advance cash funding has been received.

For purposes of efficient management and consistent selection of eligible WCF projects, only capital projects beginning with a “4”, “5”, or “6” in SCRRA’s current project accounting system shall be eligible for WCF monies. These project codes correspond to SCRRA’s portfolio of core reimbursable capital and rehabilitation projects. Eligible projects shall include capital projects that are funded by and billed to Member Agencies as well as other direct grantors. For the avoidance of doubt, reimbursable projects related to the Southern California Optimized Rail Expansion program (SCORE) are eligible for WCF funding.

In certain cases, projects coded with a 4, 5, or 6 may be subject to the receipt of advance funding. Accounts Receivable (AR) and Grants Finance (GF) will identify and exclude any advance funded projects from the 4, 5, and 6 coded WCF eligible projects.

SCRRA projects commonly referred to as Third Party Agreements (TPAs) typically have advance cash funding requirements and are therefore not eligible for WCF funding. In addition, TPAs are also excluded from WCF funding eligibility in principle since these projects are performed at the request and benefit of third parties. For simplicity of management, all SCRRA capital program projects with approved account numbers beginning with an “8”, which are typically used to account for TPAs, are not eligible for the WCF. Operating projects, including projects not included in the SCRRA operating statement or budget beginning with a “2”, are also not eligible for WCF funding. WCF eligible projects shall hereafter be referred to as “WCF Capital Projects.” No exceptions to WCF eligible projects can be made without written approval by the CFO and in no circumstances can exceptions be made in violation of provisions of the Policy.

## Custody of WCF Cash

A separate interest-bearing investment or bank account shall be established for the WCF pursuant to FIN 9.7. All WCF deposits shall be placed in this segregated account. The placement of the funds and the financial institution retaining custody of the WCF remains at the discretion

of the SCRRA CFO/Treasurer. The SCRRA CFO/Treasurer will have responsibility for establishing WCF bank account signature authority, permissions, and staff access to the WCF.

AR Finance shall monitor WCF cash balances and maintain a minimum balance of no less than the unpaid accumulated interest earned and payable to Member Agencies. No disbursements out of the WCF account shall be made that would result in compromise of this minimum threshold.

The WCF bank account will serve as the final settlement account for net consolidated monthly expenses and collections associated with WCF Capital Projects and shall reflect the net available working capital balance, plus interest earned on behalf of Member Agencies.

Specifically, the WCF bank account shall be directly involved in transactions for:

- (1) the receipt of all funding deposits
- (2) the accumulation of annual interest to Member Agencies
- (3) the payment of annual interest to Member Agencies
- (4) the reimbursement to the SCRRA operating account for WCF Capital Project expenses paid by the SCRRA operating account, made monthly in arrears
- (5) the receipt of WCF Capital Project cash collections as collected and transferred by the SCRRA operating account, made monthly in arrears

#### Hybrid Method for Separation of Operations and Capital

##### *Introduction*

SCRRA Finance, under the direction of the CFO, will retain primary responsibility to implement a hybrid accounting solution to provide for the separation, to the extent WCF funding allows, of operations and capital funds, to provide transparent reporting, maximize liquidity, and implement proper internal accounting controls. The Program Management Office (PMO) and Operations Staff shall bear primary responsibility for managing WCF Capital Project execution within the constraints of available funding and annual Capital Program spending levels as specifically delineated within individual Member Agency MOUs.

##### *Physical Separation of WCF vs Operating Funds*

AR Finance will physically segregate WCF deposits, interest earned, and settled net WCF Capital Project monthly expenses and collections within the WCF bank account.

##### *Accounting Segregation of WCF vs Operating Funds*

AR and Accounts Payable (AP) will continue to use the main operating bank account structure for all SCRRA disbursements and collections and will rely on its project accounting coding system to delineate, manage, and report WCF activity. AR will manage banking administration, and Budget, GF, and General Accounting will work with PMO and Operations, as their roles require, to ensure project budgets and invoices are appropriately funded and properly coded so that the accounting separation of operations and WCF activity can be ensured.

##### *Background and Best Practices Research for Separation of WCF and Operations*

Prior to the development of this SOP, AR Staff polled Finance representatives from each Member Agency to obtain best practices input and assess appropriate methods for the

separation of operating and working capital funds. Each Member Agency confirmed they employed no physical separation or segregation of operational and capital funds. Rather, separation is achieved through accounting segregation, and all Member Agency operating and capital funds are physically commingled. Notwithstanding these findings, for the purposes of enhanced transparency, SCRRA shall implement a separate WCF bank account which shall retain custody of settled WCF activity and remaining balances, including interest earned on behalf of Member Agencies.

#### *Physical Separation of WCF Deposits and Net Settled Monthly Cash Flow Activity*

The WCF account will not be utilized for daily transactions of WCF Capital Project cash flow activity, including disbursements to Capital Program vendors, payroll, inventory, and agency costs, nor to receive direct cash collections payments from grantors. The WCF bank account will retain earned interest income, any deposits, and net settled monthly cash flow activity, transferred in arrears from the main operating account within 30 days after each fiscal month end. The WCF bank account shall not initially be established with check writing capabilities, which may be re-evaluated at each WCF annual review. Direct disbursements out of the WCF are limited to electronic funds transactions (EFTs) of interest payments to Member Agencies and book transfers to the SCRRA Concentration account to reimburse Operations' payments for WCF Capital Project expenses. The CFO must approve any exceptions.

#### *Accounting Segregation Method for Daily Capital Cash Flow Activity*

All direct SCRRA payment and collections activity for both operations and capital will be administered within SCRRA's existing operating bank accounts for administrative simplicity and will be separated via the accounting segregation method.

#### WCF Capital Projects Cash Flow Process

##### *Expenses*

All expenses incurred on WCF Capital Projects, including but not limited to direct vendor payments, payroll, inventory stock charges, agency costs, and indirect/overhead costs, shall be disbursed in the normal course through SCRRA's existing main operating accounts. Said disbursements are managed by SCRRA AP.

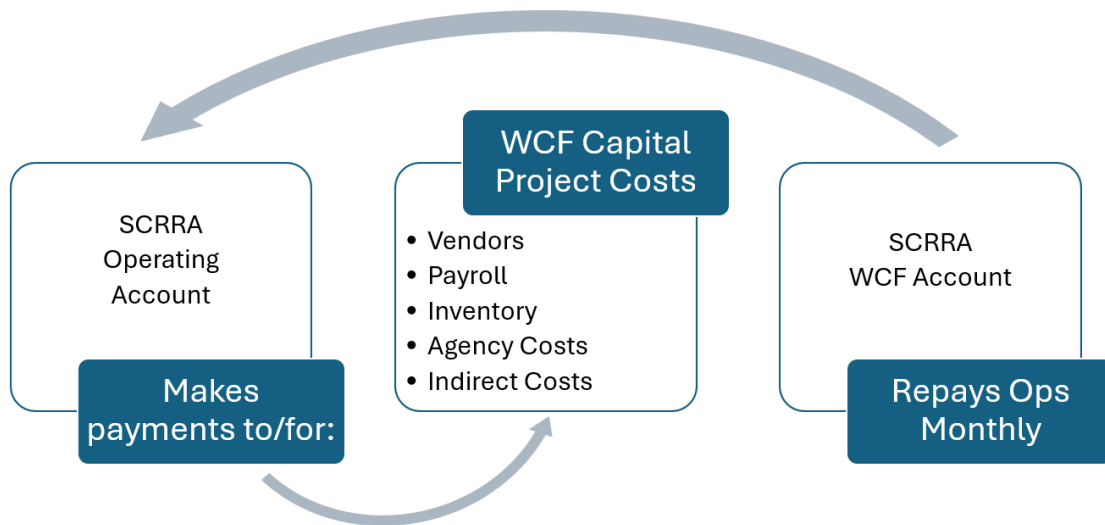
After the conclusion of each fiscal month-end, GF will reconcile and calculate all expenses paid for each eligible WCF Capital Project in the preceding fiscal month. Expenses paid for each project in any given fiscal month shall be the total of:

- Direct vendor disbursements released in the prior fiscal month
- Payroll, inventory, and other agency expenses assessed in the prior month
- ICAP expenses allocated in the prior fiscal month
- Any adjustments or reconciling items from prior periods

The total of eligible WCF Capital Projects expenses will be referred to as "Monthly WCF Expenses." Shown below is a high-level process summary for the WCF Capital Projects disbursement process.



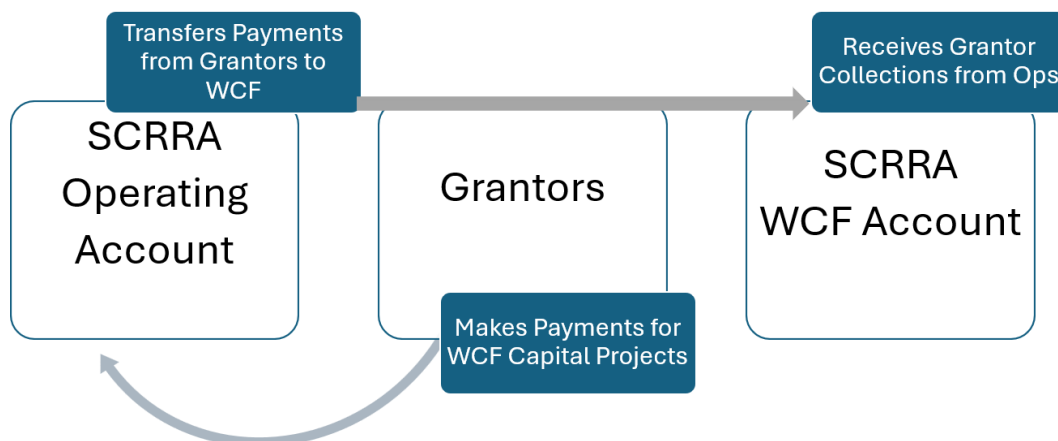
## WCF Capital Projects Disbursement Cash Flow Process



### Collections

All cash collections received on WCF Capital Projects shall be received in the normal course through SCRRA's main operating accounts. At the end of each fiscal month, GF will reconcile and calculate all cash collections received for WCF Capital Projects. Cash collections received for WCF Capital Projects will be limited to expenses paid or charged to WCF projects; WCF collections received will be determined by and matched on a line-item basis to their respective WCF expenses. The total of all WCF Capital Project collections received will be referred to as "Monthly WCF Collections." Collections for capital program expenses funded by Operations will similarly be identified and remain within SCRRA operating accounts, thereby providing for their repayment. Shown below is a high-level process summary of the WCF Capital Projects collections process.

## WCF Capital Projects Collections Cash Flow Process



### Net Monthly Transfers

These two calculations (Monthly WCF Expenses and Monthly WCF Collections) may require until the 25th calendar day of the following fiscal month to be completed, due to the complexity and volume of transactions to be analyzed and reconciled. All calculations shall be verified for accuracy by both the AR and GF Assistant Directors or their respective designees if not available. AR will then make two separate monthly bank transfers to properly true-up capital cash flow activity in the WCF bank account no later than the last day of the following fiscal month. These bank transfers must be reviewed and approved in normal course by two separate authorized senior SCRRA personnel.

- The first transfer shall be in the amount of the Monthly WCF Collections, which shall be a transfer of outgoing funds from the operating account to the WCF bank account (transfer of WCF Capital Project collections).
- The second transfer shall be for the Monthly WCF Expenses, which shall be a transfer of outgoing funds from the WCF bank account to the operating account (repayment to operations of WCF Capital project expenses).

AR Finance shall not make any outgoing transfer that would result in the WCF balance falling below the minimum threshold of the accumulated unpaid interest due to Member Agencies.

#### WCF Spending Controls and Contingency Funding

The WCF has been established at \$50,000,000. If the WCF cannot adequately fund eligible expenses within the \$50 million limit, Operations' excess available cash over and above the \$50 M Board Threshold may be used for this purpose only to the extent necessary to avoid late vendor payments and potential project shutdowns.

However, under no circumstances shall SCRRA Operations fund any Capital Program expenditures if the Operations "Available Cash Balance" as defined with SCRRA Investment Policy FIN 3.1 is below \$50 million at any time of measurement, or is anticipated to fall below \$50 million as a result of payment of the capital expenses under evaluation. SCRRA Finance must clearly disclose in reasonable detail any usage of Operations funds for WCF eligible projects in both monthly and quarterly required reporting.

Monthly WCF reporting will be provided to the SCRRA CEO and Executive Leadership Team (XLT), as required by FIN 9.7, showing WCF Capital Project expenditures, collections, and net WCF balance remaining (provided by AR/GF) so that WCF usage and availability may be adequately monitored.

If both the WCF and Operations' Available Cash are less than \$5 M and \$50 M, respectively, for the same monthly reporting period, the CFO shall promptly inform the CEO and the XLT and shall recommend corrective actions as necessary.

#### Interest Earnings

Interest earned on WCF balances will be calculated and allocated monthly to Member Agencies and paid out after the conclusion of each fiscal year. Interest earned shall be allocated in consideration of the date of the initial deposit, and based on the Member Agency percentage of deposits, which is assessed by Member Agency Track Miles Owned per FIN 9.7. Within three fiscal months after the conclusion of each fiscal year, AR shall finalize calculations and disburse

in cash to each Member Agency, the interest earned in the preceding fiscal year. The interest disbursement to Member Agencies, unlike the payment of the annual operating surplus, shall not be contingent upon the conclusions of SCRRA audits.

### Reporting

Pursuant to FIN 9.7, monthly reporting regarding WCF balances and activity shall be provided to the CEO and the XLT. Quarterly reporting shall be provided to the MAAC, AFCOM, and Board Members.

AR and GF shall together prepare monthly and quarterly reporting that includes beginning and ending WCF balances, WCF Monthly Expenses, monthly WCF Monthly Collections, and monthly and cumulative interest earned. The monthly report shall be released to the CFO by AR by or on the final calendar day of each month for the preceding fiscal month's activity. Unless otherwise directed, the CFO shall distribute the monthly report to the CEO and the XLT.

The quarterly WCF report shall contain all information as provided monthly but may be augmented as appropriate with additional presentation materials and narrative. Quarterly reports shall be provided to the MAAC in November (Q1), February (Q2), May (Q3), and August or September (Q4). Quarterly reports shall be provided to AFCOM/Board of Directors in December (Q1), March (Q2), June (Q3), and September (Q4).

### Annual Review

Pursuant to FIN 9.7, the WCF status shall be reviewed annually by the SCRRA Board of Directors. The Member Agencies and SCRRA Board of Directors will consider the adequacy of the WCF amount and will recommend any changes, as deemed necessary. Any changes to this SOP must be approved by the SCRRA CFO.

**EXHIBIT A**  
***Southern California Regional Rail Authority***  
***Finance Policies***

**TITLE:** Working Capital Fund Policy

**NO.** FIN – 9.7

**ORIGINATING UNIT:** Finance Department

**EFFECTIVE DATE:** April 2024

**REVISION:**

**PURPOSE**

To provide guidelines for the establishment and maintenance of a Working Capital Fund to support Capital Programs that are funded by Federal, State, and Local grants.

**APPLICATION**

This policy applies to all SCRRRA staff responsible for tasks impacting the Working Capital Fund.

**POLICY STATEMENT**

SCRRRA shall establish and maintain a Working Capital Fund unencumbered and uncommitted at a level of \$50,000,000. The Working Capital Fund is solely intended to serve a dynamic role and is available to be utilized as needed, devoted only to costs related to capital projects which are reimbursable.

**STRATEGIES**

1. Working Capital Fund shall be accounted for separate and apart from Operating Funds.
2. A separate bank account shall be established for the Working Capital Fund.
3. The funds will be invested in accordance with the SCRRRA Investment Policy FIN-3.1 and the need to provide liquidity and stable principal value.
4. Records shall be maintained which reflect the contribution of each Member Agency plus any interest earned on the Working Capital Funds.
5. All interest earned shall be allocated to the Working Capital Fund based on Member Agency Track Miles Owned.
6. The Working Capital Fund goal shall be to maintain a separation of Operating and Capital Funds, and to provide liquidity to fund the reimbursement cycle for grant funded Capital Programs.

**SOURCE**

The \$50,000,000 of Working Capital Funds shall come from the Member Agencies' allocation based on Track Miles Owned. Any additions to this Fund shall be approved and provided by the Member Agencies with the additional amount allocated based on track miles owned existent at the time of the addition.

**USES**

1. Funds to cover reimbursable expenses for capital projects for which grants have been awarded. **Working Capital funds shall not be used for payment of operating expenses.**

**GOVERNANCE**

- Procedures for approving use of the Working Capital Funds are described in the Working Capital Fund Standard Operating Procedure
- Creation of New Statement of Working Capital Funds to be presented to, in order, the Member Agency Advisory Committee (MAAC), Audit and Finance Committee (AFCOM), and the Board of Directors. Monthly reporting to CEO & Executive Leadership Team
- Quarterly Reporting to MAAC, AFCOM, and SCRRA Board of Directors

## MAINTENANCE

At the end of each fiscal year, interest shall be calculated and assigned to the Member Agency portion of the Working Capital Fund with allocation based on Track Miles Owned as of the most recent addition to the Working Capital Fund. The status of the Working Capital Fund shall be calculated at the end of each fiscal year based upon audited financial results.

The Working Capital Fund status shall be reviewed annually by SCRRA Board of Directors. The Member Agencies and SCRRA Board of Directors will consider the adequacy of the Working Capital Fund amount and will recommend any changes, as deemed necessary.

## RESPONSIBILITIES

**Board of Directors** is responsible for reviewing the Working Capital Fund Reports and determining that the expended funds are accomplishing the objectives contained therein.

**Chief Executive Officer (CEO)** reviews and approves the monthly Working Capital Fund report ensuring that the proposed Working Capital Fund reports are submitted to the Board of Directors and the Member Agencies within the required schedules.

**Chief Financial Officer (CFO)** is responsible for supervising and providing guidance and oversight to the Finance Department in the establishment and maintenance of the Working Capital Fund and all related analysis and presentations.

**Chiefs** are responsible for adhering to the Working Capital Fund Standard Operating Procedure.

**Member Agencies** are responsible for reviewing their share of the SCRRA's Working Capital Fund.

## REFERENCES

SCRRA Investment Policy FIN-3.1

## POLICY HISTORY

April 2024 – FIN – 9.7

| Approvals            |                      |                         |
|----------------------|----------------------|-------------------------|
| Department Chief     | Legal Counsel        | Chief Executive Officer |
| <br><br><br><br><br> | <br><br><br><br><br> | <br><br><br><br><br>    |



## EXHIBIT B

### WCF REPORTING DELIVERABLE MATRIX

| DELIVERABLE<br>(Per Policy,<br>MOUs)         | RECIPIENTS – IN<br>ORDER<br>(Per Policy, MOUs) | REQUIRED FREQUENCY<br>(Per Policy/MOUs)                                    | TIMING<br>(Per SOP)                                                                           | DELIVERABLE/MEETING<br>DATES                                                                     |
|----------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| WCF Monthly<br>Reporting                     | CEO/XLT                                        | Monthly<br>(By Policy)                                                     | Calendar month end                                                                            | July month = Aug 31<br>Aug month = Sep 30<br>Sep month = Oct 31                                  |
| WCF Quarterly<br>Reporting                   | MAAC/MAS                                       | Quarterly<br>(MAAC-By Policy)<br>(MAS-By Individual MOUs)                  | First MAAC meeting following<br>delivery of monthly reporting to<br>CEO/XLT                   | Q1 = Nov MAAC Meeting<br>Q2 = Feb MAAC Meeting<br>Q3 = May MAAC Meeting<br>Q4 = Sep MAAC Meeting |
| WCF Quarterly<br>Reporting                   | AFCOM/Board                                    | Quarterly<br>(By Policy)                                                   | Presented to AFCOM/BOARD in<br>the third month after the fiscal<br>quarter end to be reported | Q1 = Dec AFCOM/Board<br>Q2 = Mar AFCOM/Board<br>Q3 = June AFCOM/Board<br>Q4 = Sep AFCOM/Board    |
| WCF Annual<br>Review                         | MAAC/MAS/AFCOM/<br>Board                       | Annually (By Policy)<br>March 31 (By Individual<br>MOUs)                   | September Board reporting cycle                                                               | September AFCOM/Board<br>(First review in Sep 2026)                                              |
| Payment of<br>Interest to<br>Member Agencies | MAS                                            | Annually (By Policy)<br>March 31 of following year<br>(By Individual MOUs) | Annually, within three fiscal<br>months of FYE                                                | September 30                                                                                     |



**METROLINK**

**Working Capital Fund Annual Review**

# Working Capital Fund Annual Review

- FIN – 9.7 requires that the Working Capital Fund (WCF) status is reviewed annually by the SCRRA Board.
- Member Agencies and the Board are to consider the adequacy of the WCF amount and recommend changes.
- WCF advance activity began in November 2025 and to date, over \$80 M of liquidity for 250 Capital projects has been successfully provided, and SCRRA is compliant with all WCF provisions.
- SCRRA anticipates increased usage of the \$50 M in FY27 to fund expected growth in the Capital Program.
- Staff does not recommend any changes to the WCF Policy or Standard Operating Procedures.
- The next annual review shall take place in September of 2027.



**METROLINK**

Thank you.





[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-288-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** FY2025-26 Working Capital Fund Report, Quarter Ending June 30, 2026

**Issue**

SCRRA Working Capital Fund Policy - FIN 9.7, as well as executed Member Agency MOUs related thereto, require quarterly reporting of Working Capital Fund (WCF) activity to the SCRRA Board of Directors.

This quarterly report and accompanying attachments provide the following information:

1. Summary and project-level detail for WCF advances and repayments;
2. WCF interest income received; and
3. Reconciliation of beginning and ending quarterly WCF balances.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair, investing in the development of our employees and maintaining fiscal sustainability.



## **Background**

In April of 2024, the SCRRA Board of Directors approved the establishment of the \$50 million Working Capital Fund (WCF). Pursuant to the Policy, the goal of the WCF shall be to begin a separation of Operating and Capital Funds, and to provide liquidity to fund the reimbursement cycle for grant-funded capital projects. Usage of the funds is limited under the Policy to advance fund reimbursable expenses for capital projects for which grants have been awarded. Given the anticipated volume of capital activity, the Working Capital Fund may need to be increased in the future in order to fully separate Operating Funds from Capital Funds.

Member Agencies were invoiced for their respective WCF allocation deposits, based upon Track Miles Owned, in June of 2024. \$50,000,000 has been collected and deposited in a segregated money market demand account at U.S. Bank specifically established for this purpose. Funds in this account are not commingled with Operating Funds, nor are they used for the payment of any expenses pursuant to Third-Party Agreements or any other advance-funded capital project. The WCF is not used for SCRRA on-going operations or operating projects of any kind. Funds are allocated to eligible Capital Program projects on a consolidated basis as incurred. WCF advance and repayment transactions are governed by the Policy and a detailed Standard Operating Procedures document which has been provided to the Member Agencies.

## **Discussion**

Advance and repayment transactions for the Working Capital Fund began in November 2025. Advances taken against the WCF in Q4 FY26 totaled \$24,615,199.12. Collections, or repayments against WCF expenses totaled \$26,801,693.60 for the quarter, for a net WCF repayment of \$ 2,186,494.48. Further detail has been provided in Attachment B.

Fiscal year interest earned on unused WCF balances is returned to the Member Agencies within 90 days after the conclusion of each fiscal year. The total interest earned of \$1,131,990.23 in FY26 was paid to Member Agencies in August 2026. Interest earned for Q4 FY26 was \$164,619.77. Interest income has declined from prior quarters due to lower market interest rates and lower WCF balances resulting from the commencement of advance activities. Further details of interest earned have been provided in Attachment A.

The WCF ending balance as of June 30, 2026, was \$28,991,802.33, and a summary reconciliation is provided below.

| <b>WCF Activity and Balances, Q4 FY26</b><br><b>(\$ in millions)</b> |         |
|----------------------------------------------------------------------|---------|
| Beginning Quarter Balance                                            | \$26.64 |
| Less: Advances Taken                                                 | (24.62) |
| Plus: Collections Received                                           | 26.80   |
| Plus: Interest Received                                              | .16     |
| Ending Quarter Balance                                               | \$28.99 |

**Next Steps**

The Working Capital Fund report for the quarter ended September 30, 2026, will be provided in November 2026.

Prepared by: Tom Schamber, Chief Financial Officer

Approved by: Tom Schamber, Chief Financial Officer

**Attachment(s)**

[Attachment A - Member Agency Allocation of Interest](#)  
[Attachment B - FY26 Q4 Eligible Capital Project Activity](#)  
[Presentation - FY26 Q4 Working Capital Fund Report](#)

## ATTACHMENT A

|                                        | MEMBER AGENCY ALLOCATION OF INTEREST |                        |                        |                        |                        |                         |                   |  |
|----------------------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|-------------------|--|
|                                        | LACMTA                               | OCTA                   | RCTC                   | SBCTA                  | VCTC                   | TOTAL                   |                   |  |
| <b>Date of Deposit</b>                 | <b>2/11/2025</b>                     | <b>6/30/2024</b>       | <b>7/25/2024</b>       | <b>7/17/2024</b>       | <b>4/16/2025</b>       |                         |                   |  |
| <b>Initial Working Capital Deposit</b> | <b>\$ 29,290,000.00</b>              | <b>\$ 7,150,000.00</b> | <b>\$ 4,765,000.00</b> | <b>\$ 5,330,000.00</b> | <b>\$ 3,465,000.00</b> | <b>\$ 50,000,000.00</b> |                   |  |
| <b>Deposit Allocation %</b>            | <b>58.58%</b>                        | <b>14.30%</b>          | <b>9.53%</b>           | <b>10.66%</b>          | <b>6.93%</b>           | <b>100.0%</b>           |                   |  |
| <b>Interest Payment Date</b>           |                                      |                        |                        |                        |                        | <b>Total Interest</b>   | <b>Bank APY %</b> |  |
| 7/31/2024                              | \$ -                                 | \$ 27,438.71           | \$ 3,660.70            | \$ 8,774.48            | \$ -                   | \$ 39,873.89            | 4.08%             |  |
| 8/31/2024                              | -                                    | 24,943.62              | 16,572.44              | 18,553.75              | -                      | 60,069.81               | 4.17%             |  |
| 9/30/2024                              | -                                    | 23,271.34              | 15,461.38              | 17,309.86              | -                      | 56,042.58               | 4.00%             |  |
| 10/31/2024                             | -                                    | 22,648.59              | 15,047.63              | 16,846.64              | -                      | 54,542.86               | 3.75%             |  |
| 11/30/2024                             | -                                    | 20,840.46              | 13,846.32              | 15,501.71              | -                      | 50,188.49               | 3.55%             |  |
| 12/31/2024                             | -                                    | 20,587.88              | 13,678.50              | 15,313.83              | -                      | 49,580.22               | 3.39%             |  |
| 1/31/2025                              | -                                    | 19,745.05              | 13,118.53              | 14,686.92              | -                      | 47,550.50               | 3.24%             |  |
| 2/28/2025                              | 46,049.21                            | 17,876.17              | 11,876.86              | 13,296.77              | -                      | 89,099.01               | 3.24%             |  |
| 3/31/2025                              | 80,124.79                            | 20,013.01              | 13,296.56              | 14,886.22              | -                      | 128,320.58              | 3.26%             |  |
| 4/30/2025                              | 81,101.10                            | 20,256.87              | 13,458.58              | 15,067.61              | 4,776.55               | 134,660.71              | 3.41%             |  |
| 5/31/2025                              | 84,041.46                            | 20,991.28              | 13,946.52              | 15,613.89              | 9,885.83               | 144,478.97              | 3.41%             |  |
| 6/30/2025                              | 81,558.41                            | 20,371.09              | 13,534.47              | 15,152.56              | 9,593.75               | 140,210.28              | 3.41%             |  |
| <b>Interest Earned, FY24-25</b>        | <b>\$ 372,874.99</b>                 | <b>\$ 258,984.07</b>   | <b>\$ 157,498.48</b>   | <b>\$ 181,004.24</b>   | <b>\$ 24,256.12</b>    | <b>\$ 994,617.90</b>    |                   |  |
| 7/31/2025                              | 84,513.26                            | 21,109.13              | 14,024.82              | 15,701.54              | 9,941.33               | 145,290.08              | 3.41%             |  |
| 8/31/2025                              | 84,488.50                            | 21,102.94              | 14,020.71              | 15,696.94              | 9,938.42               | 145,247.51              | 3.41%             |  |
| 9/30/2025                              | 78,594.42                            | 19,185.73              | 12,786.02              | 14,302.09              | 9,297.70               | 134,165.96              | 3.29%             |  |
| 10/31/2025                             | 77,465.48                            | 18,910.15              | 12,602.36              | 14,096.65              | 9,164.15               | 132,238.78              | 3.13%             |  |
| 11/30/2025                             | 67,056.15                            | 16,369.12              | 10,908.93              | 12,202.43              | 7,932.73               | 114,469.35              | 2.89%             |  |
| 12/31/2025                             | 54,946.94                            | 13,413.13              | 8,938.96               | 9,998.88               | 6,500.21               | 93,798.12               | 2.72%             |  |
| 1/31/2026                              | 49,487.77                            | 12,080.49              | 8,050.84               | 9,005.46               | 5,854.39               | 84,478.95               | 2.63%             |  |
| 2/28/2026                              | 35,656.97                            | 8,704.24               | 5,800.80               | 6,488.62               | 4,218.21               | 60,868.84               | 2.63%             |  |
| 3/31/2026                              | 33,280.98                            | 8,124.24               | 5,414.27               | 6,056.25               | 3,937.13               | 56,812.87               | 2.63%             |  |
| 4/30/2026                              | 33,129.27                            | 8,087.21               | 5,389.59               | 6,028.64               | 3,919.18               | 56,553.89               | 2.63%             |  |
| 5/31/2026                              | 30,874.04                            | 7,536.68               | 5,022.70               | 5,618.25               | 3,652.39               | 52,704.06               | 2.63%             |  |
| 6/30/2026                              | 32,430.95                            | 7,916.74               | 5,275.98               | 5,901.57               | 3,836.57               | 55,361.82               | 2.63%             |  |
| <b>Interest Earned, FY25-26 YTD</b>    | <b>\$ 661,924.73</b>                 | <b>\$ 162,539.79</b>   | <b>\$ 108,235.96</b>   | <b>\$ 121,097.34</b>   | <b>\$ 78,192.41</b>    | <b>\$ 1,131,990.23</b>  |                   |  |
| <b>Total Cumulative Interest</b>       | <b>\$ 1,034,799.71</b>               | <b>\$ 421,523.86</b>   | <b>\$ 265,734.45</b>   | <b>\$ 302,101.58</b>   | <b>\$ 102,448.54</b>   | <b>\$ 2,126,608.13</b>  |                   |  |

**Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL**  
**SUMMARY OF EXPENSES PAID AND COLLECTIONS RECEIVED**

| <b>EXPENSES PAID FROM OPERATIONS DUE FROM WCF</b> |                           |
|---------------------------------------------------|---------------------------|
| SOGGR Total                                       | <b>(\$17,745,998.42)</b>  |
| CAPITAL Total                                     | <b>(3,554,321.03)</b>     |
| SCORE Total                                       | <b>(3,314,879.67)</b>     |
| Totals                                            | <b>(\$24,615,199.12)</b>  |
| <br><b>Net WCF Repayment</b>                      | <br><b>\$2,186,494.48</b> |

| <b>COLLECTIONS RECEIVED BY OPERATIONS DUE TO WCF</b> |                        |
|------------------------------------------------------|------------------------|
| SOGGR Total                                          | <b>\$18,339,361.33</b> |
| CAPITAL Total                                        | <b>3,901,285.09</b>    |
| SCORE Total                                          | <b>4,562,117.02</b>    |
| Adjustment for Prior Period                          | <b>(1,069.84)</b>      |
| Totals                                               | <b>\$26,801,693.60</b> |

**Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL**  
**STATE OF GOOD REPAIR PROJECTS**

| COUNT | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |                  | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |                |
|-------|----------------------------------------------------|-----------|--------------------------------|------------------|--------------------------------------------------------|-----------|--------------------------------|----------------|
|       | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES         | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS    |
| 1     | SOG                                                | 524050    | FY24 BOMBARDIER RAILCAR REBLD  | (\$7,436,302.37) | SOG                                                    | 524050    | FY24 BOMBARDIER RAILCAR REBLD  | \$6,584,209.87 |
| 2     | SOG                                                | 520130    | VENTURA FY20 SIGNAL REHAB      | (\$788,678.16)   | SOG                                                    | 518050    | SYST - BOMBARDIER(SENTINEL) OH | \$1,427,490.92 |
| 3     | SOG                                                | 521052    | FY21 LOCOMOTIVE PRELIM. ENG.   | (\$760,836.02)   | SOG                                                    | 520130    | VENTURA FY20 SIGNAL REHAB      | \$875,626.72   |
| 4     | SOG                                                | 524053    | F125 LOCO "INTERMEDIATE" OVHL  | (\$689,356.05)   | SOG                                                    | 524053    | F125 LOCO "INTERMEDIATE" OVHL  | \$702,178.67   |
| 5     | SOG                                                | 525010    | FY25 TRACK REHAB GRND & SRF    | (\$459,131.50)   | SOG                                                    | 523052    | FY23 ROTEM HVAC OVERHAUL       | \$606,281.60   |
| 6     | SOG                                                | 525091    | FY25 EAM SOFTWARE ENHANCEMENT  | (\$451,456.03)   | SOG                                                    | 524010    | FY24 TRACK REHAB GRND & SRF    | \$566,017.19   |
| 7     | SOG                                                | 522320    | FY22 VALLEY SUB STRCTRS REHAB  | (\$394,180.93)   | SOG                                                    | 522041    | FY22 SYSTMWD TRAIN CNTRL REHAB | \$437,052.24   |
| 8     | SOG                                                | 524630    | FY24 ORANGE SUB TC SIG REHAB   | (\$377,305.00)   | SOG                                                    | 524630    | FY24 ORANGE SUB TC SIG REHAB   | \$401,434.68   |
| 9     | SOG                                                | 525640    | FY25 ORANGE SUB TC COMM REHAB  | (\$354,713.68)   | SOG                                                    | 525091    | FY25 EAM SOFTWARE ENHANCEMENT  | \$396,204.03   |
| 10    | SOG                                                | 524310    | FY24 VALLEY SUB TRACK REHAB    | (\$279,512.08)   | SOG                                                    | 523041    | FY23 SYSTMWD TRAIN CNTRL REHAB | \$393,324.16   |
| 11    | SOG                                                | 522420    | FY22 SAN GABRIEL STRCTRS REHAB | (\$254,921.70)   | SOG                                                    | 525640    | FY25 ORANGE SUB TC COMM REHAB  | \$387,997.89   |
| 12    | SOG                                                | 523052    | FY23 ROTEM HVAC OVERHAUL       | (\$243,244.56)   | SOG                                                    | 522630    | ORANGE TRAIN CNTRL REHAB SIG   | \$282,437.66   |
| 13    | SOG                                                | 520330    | VALLEY FY20 SIGNAL REHAB       | (\$231,026.03)   | SOG                                                    | 523630    | FY23 ORANGE TRAIN CTRL REHB SG | \$277,824.44   |
| 14    | SOG                                                | 523056    | FY23 MP36 LOCO SVC LIFE EXT    | (\$225,789.51)   | SOG                                                    | 523011    | FY23 TRACK REHAB - INFRAS STDY | \$271,681.60   |
| 15    | SOG                                                | 524010    | FY24 TRACK REHAB GRND & SRF    | (\$220,756.15)   | SOG                                                    | 523050    | FY23 BOMBARDIER RAILCAR REBLD  | \$268,593.37   |
| 16    | SOG                                                | 523090    | FY23 MOW VEHICLES & EQUIPMENT  | (\$213,702.40)   | SOG                                                    | 519050    | SYSTEM BOMBARDIER MIDLF O/HAUL | \$265,263.02   |
| 17    | SOG                                                | 523630    | FY23 ORANGE TRAIN CTRL REHB SG | (\$187,328.78)   | SOG                                                    | 521090    | MOW VEHICLES & EQUIPMENT REHAB | \$237,647.89   |
| 18    | SOG                                                | 522630    | ORANGE TRAIN CNTRL REHAB SIG   | (\$183,429.86)   | SOG                                                    | 525010    | FY25 TRACK REHAB GRND & SRF    | \$195,127.15   |
| 19    | SOG                                                | 524330    | FY24 VALLEY SUB TC SIG REHA    | (\$175,810.12)   | SOG                                                    | 524040    | FY24 OB TRAIN CNTRL SYS REHAB  | \$178,435.65   |
| 20    | SOG                                                | 523011    | FY23 TRACK REHAB - INFRAS STDY | (\$169,075.23)   | SOG                                                    | 521130    | VENTURA TRAIN CONTROL REHAB    | \$174,581.69   |
| 21    | SOG                                                | 519054    | SYSTEM RUBBR WNDW GASKET REPL  | (\$122,026.97)   | SOG                                                    | 521630    | ORANGE TRAIN CONTROL REHAB     | \$163,965.52   |
| 22    | SOG                                                | 521910    | FY21 PVL DESIGN PHASE          | (\$118,495.56)   | SOG                                                    | 520330    | VALLEY FY20 SIGNAL REHAB       | \$161,966.44   |
| 23    | SOG                                                | 521130    | VENTURA TRAIN CONTROL REHAB    | (\$118,222.22)   | SOG                                                    | 519120    | VC VENT ARRYOSIMI SCOUR PRTN   | \$145,977.00   |
| 24    | SOG                                                | 522430    | SAN GABRIEL TRAIN CNTRL SYSTM  | (\$115,538.46)   | SOG                                                    | 520062    | MOW VEHICLE REPLACEMENT        | \$136,972.27   |
| 25    | SOG                                                | 525050    | FY25 BOMBARDIER RAILCAR REBLD  | (\$109,203.76)   | SOG                                                    | 572303    | Lubrication Truck Procurement  | \$122,618.13   |
| 26    | SOG                                                | 525070    | FY25 REHAB OF END_USR COMPUTER | (\$109,001.34)   | SOG                                                    | 525070    | FY25 REHAB OF END_USR COMPUTER | \$116,078.15   |
| 27    | SOG                                                | 519050    | SYSTEM BOMBARDIER MIDLF O/HAUL | (\$105,973.45)   | SOG                                                    | 524091    | FY24 ELECTRIC VEHICLES         | \$102,165.39   |
| 28    | SOG                                                | 522060    | FY22 FACILITIES REHAB          | (\$101,716.97)   | SOG                                                    | 522420    | FY22 SAN GABRIEL STRCTRS REHAB | \$98,260.39    |
| 29    | SOG                                                | 524730    | FY24 RIVER SUB TC SIGNAL REHAB | (\$99,351.95)    | SOG                                                    | 524061    | FY24 CMF RESTROOM RENOVATION   | \$91,826.06    |
| 30    | SOG                                                | 522050    | FY22 ROLLING STOCK REHAB       | (\$99,196.44)    | SOG                                                    | 524011    | FY24 TRACK REHAB - INFRAS STDY | \$91,447.02    |
| 31    | SOG                                                | 525011    | FY25 TRACK MEASUREMENT         | (\$98,316.63)    | SOG                                                    | 525011    | FY25 TRACK MEASUREMENT         | \$91,355.84    |
| 32    | SOG                                                | 525056    | FY25 HYUNDAI-ROTEM RLCR OVHL   | (\$89,930.31)    | SOG                                                    | 524060    | FY24 CMF SWITCH GR & FIRE ALRM | \$85,071.00    |
| 33    | SOG                                                | 524061    | FY24 CMF RESTROOM RENOVATION   | (\$88,909.28)    | SOG                                                    | 524640    | FY24 ORANGE SUB TC COMM REHAB  | \$78,018.91    |
| 34    | SOG                                                | 522360    | LANCASTER CREW BASE RPLCMNT    | (\$87,144.26)    | SOG                                                    | 523056    | FY23 MP36 LOCO SVC LIFE EXT    | \$75,314.66    |
| 35    | SOG                                                | 524430    | FY24 SAN GAB TC SIGNAL REHAB   | (\$83,608.35)    | SOG                                                    | 525056    | FY25 HYUNDAI-ROTEM RLCR OVHL   | \$67,810.28    |
| 36    | SOG                                                | 524011    | FY24 TRACK REHAB - INFRAS STDY | (\$81,579.13)    | SOG                                                    | 523060    | FY23 FACILITIES REHAB          | \$59,532.08    |
| 37    | SOG                                                | 523060    | FY23 FACILITIES REHAB          | (\$79,385.17)    | SOG                                                    | 522430    | SAN GABRIEL TRAIN CNTRL SYSTM  | \$55,442.44    |
| 38    | SOG                                                | 522040    | FY22 TRAIN CNTRL SYSTEMS REHAB | (\$77,632.90)    | SOG                                                    | 521050    | ROLLING STOCK REHABILITATION   | \$55,043.35    |
| 39    | SOG                                                | 524060    | FY24 CMF SWITCH GR & FIRE ALRM | (\$68,075.18)    | SOG                                                    | 524430    | FY24 SAN GAB TC SIGNAL REHAB   | \$52,486.11    |
| 40    | SOG                                                | 523610    | FY23 ORANGE SUB TRACK REHAB    | (\$62,783.80)    | SOG                                                    | 523720    | FY23 WEST BANK RIVER STRCTRS   | \$51,536.62    |
| 41    | SOG                                                | 522130    | FY22 VENTURA TRAIN CNTRL REHAB | (\$58,530.08)    | SOG                                                    | 524410    | FY24 SAN GABRIEL TRACK REHAB   | \$51,149.10    |



## Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL

### STATE OF GOOD REPAIR PROJECTS

| COUNT | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |               | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |             |
|-------|----------------------------------------------------|-----------|--------------------------------|---------------|--------------------------------------------------------|-----------|--------------------------------|-------------|
|       | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES      | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS |
| 42    | SOG                                                | 523050    | FY23 BOMBARDIER RAILCAR REBLD  | (\$58,382.92) | SOG                                                    | 525730    | FY25 RIVER SUB TC SIGNAL REHAB | \$47,686.49 |
| 43    | SOG                                                | 518050    | SYST - BOMBARDIER(SENTINEL) OH | (\$57,426.82) | SOG                                                    | 525130    | FY25 VENTURA TC SIGNAL REHAB   | \$46,410.84 |
| 44    | SOG                                                | 521051    | ROLLING STK REHAB 2ND PROJECT  | (\$56,476.30) | SOG                                                    | 524310    | FY24 VALLEY SUB TRACK REHAB    | \$45,914.52 |
| 45    | SOG                                                | 522041    | FY22 SYSTMWD TRAIN CNTRL REHAB | (\$56,061.18) | SOG                                                    | 522040    | FY22 TRAIN CNTRL SYSTEMS REHAB | \$42,952.60 |
| 46    | SOG                                                | 524410    | FY24 SAN GABRIEL TRACK REHAB   | (\$54,009.16) | SOG                                                    | 522060    | FY22 FACILITIES REHAB          | \$42,690.33 |
| 47    | SOG                                                | 523720    | FY23 WEST BANK RIVER STRCTRS   | (\$52,751.20) | SOG                                                    | 524230    | FY24 VEN (LA) SUB TC SIG REHAB | \$42,152.31 |
| 48    | SOG                                                | 524051    | FY24 ROTEM HVAC OVERHAUL       | (\$51,163.54) | SOG                                                    | 521060    | FACILITIES REHAB               | \$39,842.90 |
| 49    | SOG                                                | 523040    | FY23 TRAIN CNTRL SYSTEMS REHAB | (\$49,253.80) | SOG                                                    | 520430    | SAN GABRIEL FY20 SIGNAL REHAB  | \$38,999.68 |
| 50    | SOG                                                | 524210    | FY24 VEN SUB (LA) TRACK REHAB  | (\$45,310.52) | SOG                                                    | 522050    | FY22 ROLLING STOCK REHAB       | \$38,504.24 |
| 51    | SOG                                                | 523041    | FY23 SYSTMWD TRAIN CNTRL REHAB | (\$43,502.99) | SOG                                                    | 524210    | FY24 VEN SUB (LA) TRACK REHAB  | \$37,695.37 |
| 52    | SOG                                                | 521060    | FACILITIES REHAB               | (\$40,836.40) | SOG                                                    | 524330    | FY24 VALLEY SUB TC SIG REHA    | \$36,019.90 |
| 53    | SOG                                                | 525130    | FY25 VENTURA TC SIGNAL REHAB   | (\$40,835.39) | SOG                                                    | 524730    | FY24 RIVER SUB TC SIGNAL REHAB | \$33,906.41 |
| 54    | SOG                                                | 524620    | FY24 ORANGE SUB STRCTRS REHAB  | (\$40,823.77) | SOG                                                    | 523310    | FY23 VALLEY SUB TRACK REHAB    | \$33,077.06 |
| 55    | SOG                                                | 524230    | FY24 VEN (LA) SUB TC SIG REHAB | (\$36,510.56) | SOG                                                    | 520620    | ORANGE COUNTY STRUCTURES REHAB | \$32,670.62 |
| 56    | SOG                                                | 519621    | ORANGE BRIDGE REPL DES MP206   | (\$34,373.03) | SOG                                                    | 525430    | FY25 SAN GAB TC SIGNAL REHAB   | \$31,869.18 |
| 57    | SOG                                                | 521630    | ORANGE TRAIN CONTROL REHAB     | (\$34,356.98) | SOG                                                    | 524620    | FY24 ORANGE SUB STRCTRS REHAB  | \$31,335.37 |
| 58    | SOG                                                | 519120    | VC VENT ARRYOSIMI SCOUR PRTN   | (\$32,799.53) | SOG                                                    | 522130    | FY22 VENTURA TRAIN CNTRL REHAB | \$31,179.11 |
| 59    | SOG                                                | 520430    | SAN GABRIEL FY20 SIGNAL REHAB  | (\$31,279.21) | SOG                                                    | 525050    | FY25 BOMBARDIER RAILCAR REBLD  | \$30,511.99 |
| 60    | SOG                                                | 520620    | ORANGE COUNTY STRUCTURES REHAB | (\$30,070.08) | SOG                                                    | 524240    | FY24 VEN(LA) SUB TC COMM REHAB | \$30,380.87 |
| 61    | SOG                                                | 519020    | SYSTEM ARRYO SECO BRIDGE DSIGN | (\$29,751.86) | SOG                                                    | 523610    | FY23 ORANGE SUB TRACK REHAB    | \$30,325.75 |
| 62    | SOG                                                | 523054    | FY23 COMM SYSTEM OVERHAUL      | (\$29,428.10) | SOG                                                    | 525140    | FY25 VENTURA TC COMM REHAB     | \$29,863.28 |
| 63    | SOG                                                | 525730    | FY25 RIVER SUB TC SIGNAL REHAB | (\$29,088.70) | SOG                                                    | 523040    | FY23 TRAIN CNTRL SYSTEMS REHAB | \$29,750.68 |
| 64    | SOG                                                | 521610    | ORANGE SUB TRACK REHAB         | (\$28,910.07) | SOG                                                    | 520061    | OVERHAUL CURR SPEC MOW EQ PH1  | \$28,761.63 |
| 65    | SOG                                                | 520331    | PEDESTRIAN GATES AT STATIONS   | (\$28,460.93) | SOG                                                    | 521610    | ORANGE SUB TRACK REHAB         | \$28,450.85 |
| 66    | SOG                                                | 519051    | SYSTEM LOCOMTV&CAB CAMDVR REPL | (\$27,043.97) | SOG                                                    | 524610    | FY24 ORANGE SUB TRACK REHAB    | \$26,358.91 |
| 67    | SOG                                                | 524610    | FY24 ORANGE SUB TRACK REHAB    | (\$25,340.23) | SOG                                                    | 522640    | ORANGE TRAIN CNTRL REHAB COMM  | \$25,561.25 |
| 68    | SOG                                                | 522640    | ORANGE TRAIN CNTRL REHAB COMM  | (\$24,695.92) | SOG                                                    | 519621    | ORANGE BRIDGE REPL DES MP206   | \$23,644.83 |
| 69    | SOG                                                | 522230    | VENTURA (LA) CNTRL REHAB SIG   | (\$24,609.60) | SOG                                                    | 521051    | ROLLING STK REHAB 2ND PROJECT  | \$20,114.26 |
| 70    | SOG                                                | 525630    | FY25 ORANGE SUB TC SIG REHAB   | (\$24,018.60) | SOG                                                    | 519051    | SYSTEM LOCOMTV&CAB CAMDVR REPL | \$19,463.26 |
| 71    | SOG                                                | 523051    | FY23 ROLLING STOCK DAMAGE RPR  | (\$23,912.74) | SOG                                                    | 525410    | FY25 SAN GABRIEL TRACK REHAB   | \$18,197.57 |
| 72    | SOG                                                | 520060    | FACILITIES REHABILITATION      | (\$22,742.58) | SOG                                                    | 525110    | FY25 VENTURA (VC) SUB TRK REHB | \$17,844.21 |
| 73    | SOG                                                | 525430    | FY25 SAN GAB TC SIGNAL REHAB   | (\$21,534.61) | SOG                                                    | 524710    | FY24 RIVER SUB TRACK REHAB     | \$17,681.71 |
| 74    | SOG                                                | 572303    | Lubrication Truck Procurement  | (\$21,366.00) | SOG                                                    | 523054    | FY23 COMM SYSTEM OVERHAUL      | \$17,584.94 |
| 75    | SOG                                                | 523310    | FY23 VALLEY SUB TRACK REHAB    | (\$21,089.38) | SOG                                                    | 523055    | FY23 HVAC AIR QLTY SOL-C-19    | \$16,966.15 |
| 76    | SOG                                                | 523330    | FY23 VALLEY TRN CTRL REHAB SIG | (\$19,661.09) | SOG                                                    | 524052    | FY24 LDVR & CAMERA RPLCMT      | \$16,899.69 |
| 77    | SOG                                                | 525110    | FY25 VENTURA (VC) SUB TRK REHB | (\$18,825.89) | SOG                                                    | 524320    | FY24 VALLEY SUB STRCTRS REHAB  | \$16,034.89 |
| 78    | SOG                                                | 525330    | FY25 VALLEY SUB TC SIG REHA    | (\$17,080.29) | SOG                                                    | 525630    | FY25 ORANGE SUB TC SIG REHAB   | \$14,263.14 |
| 79    | SOG                                                | 524052    | FY24 LDVR & CAMERA RPLCMT      | (\$16,952.15) | SOG                                                    | 522230    | VENTURA (LA) CNTRL REHAB SIG   | \$14,089.17 |
| 80    | SOG                                                | 525040    | FY25 OB TRAIN CNTRL SYS REHAB  | (\$16,121.11) | SOG                                                    | 520050    | GEN1 HVAC OVERHAUL(ADD'N 40)   | \$14,045.97 |
| 81    | SOG                                                | 519052    | SYSTEM O/HAUL ROTEM SIDEDR MTR | (\$15,073.76) | SOG                                                    | 519020    | SYSTEM ARRYO SECO BRIDGE DSIGN | \$13,610.27 |
| 82    | SOG                                                | 525053    | FY25 F125 LOCO INTERMEDT OVHL  | (\$14,358.35) | SOG                                                    | 525610    | FY25 ORANGE SUB TRACK REHAB    | \$13,033.53 |

## Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL

### STATE OF GOOD REPAIR PROJECTS

| COUNT | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |               | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |             |
|-------|----------------------------------------------------|-----------|--------------------------------|---------------|--------------------------------------------------------|-----------|--------------------------------|-------------|
|       | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES      | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS |
| 83    | SOGR                                               | 522330    | VALLEY TRAIN CNTRL REHAB SIG   | (\$14,119.47) | SOGR                                                   | 525710    | FY25 RIVER SUB TRACK REHAB     | \$12,899.03 |
| 84    | SOGR                                               | 525063    | FY25 SCADA SYSTM INSTL & MCC   | (\$13,269.25) | SOGR                                                   | 520060    | FACILITIES REHABILITATION      | \$11,334.45 |
| 85    | SOGR                                               | 525410    | FY25 SAN GABRIEL TRACK REHAB   | (\$12,734.40) | SOGR                                                   | 523010    | FY23 TRACK REHAB GRINDING      | \$10,952.93 |
| 86    | SOGR                                               | 525610    | FY25 ORANGE SUB TRACK REHAB    | (\$12,028.07) | SOGR                                                   | 523051    | FY23 ROLLING STOCK DAMAGE RPR  | \$10,660.84 |
| 87    | SOGR                                               | 519034    | SHORTWAY EMF IMPROV            | (\$11,001.80) | SOGR                                                   | 521920    | PERRIS CONS PHASE SERVICE      | \$10,382.89 |
| 88    | SOGR                                               | 523340    | FY23 VALLEY TRN CTRL REHB COMM | (\$10,987.56) | SOGR                                                   | 523340    | FY23 VALLEY TRN CTRL REHB COMM | \$10,347.28 |
| 89    | SOGR                                               | 525710    | FY25 RIVER SUB TRACK REHAB     | (\$10,958.46) | SOGR                                                   | 523330    | FY23 VALLEY TRN CTRL REHAB SIG | \$10,052.21 |
| 90    | SOGR                                               | 522011    | TRACK REHAB - INFRSTRCTRE STDY | (\$10,773.36) | SOGR                                                   | 520331    | PEDESTRIAN GATES AT STATIONS   | \$9,637.53  |
| 91    | SOGR                                               | 524240    | FY24 VEN(LA) SUB TC COMM REHAB | (\$9,865.01)  | SOGR                                                   | 525330    | FY25 VALLEY SUB TC SIG REHA    | \$9,107.57  |
| 92    | SOGR                                               | 524054    | FY24 MP36 LOCO OVERHAUL        | (\$9,282.54)  | SOGR                                                   | 524110    | FY24 VENTURA (VC) SUB TRK REHB | \$8,635.11  |
| 93    | SOGR                                               | 524710    | FY24 RIVER SUB TRACK REHAB     | (\$8,925.23)  | SOGR                                                   | 524041    | FY24 BO TRAIN CNTRL SYS REHAB  | \$8,370.04  |
| 94    | SOGR                                               | 524110    | FY24 VENTURA (VC) SUB TRK REHB | (\$8,390.00)  | SOGR                                                   | 524220    | FY24 VEN (LA/VC) STRCTRS REHAB | \$7,789.31  |
| 95    | SOGR                                               | 525930    | FY25 PERRIS VLY TC SIGNL REHAB | (\$8,232.00)  | SOGR                                                   | 523090    | FY23 MOW VEHICLES & EQUIPMENT  | \$7,519.75  |
| 96    | SOGR                                               | 522340    | VALLEY TRAIN CNTRL REHAB COMM  | (\$8,125.70)  | SOGR                                                   | 525310    | FY25 VALLEY SUB TRACK REHAB    | \$7,120.47  |
| 97    | SOGR                                               | 520050    | GEN1 HVAC OVERHAUL(ADD'N 40)   | (\$7,964.38)  | SOGR                                                   | 524051    | FY24 ROTEM HVAC OVERHAUL       | \$6,833.30  |
| 98    | SOGR                                               | 524411    | FY24 SHORT WAY SUB TRK REHAB   | (\$7,908.85)  | SOGR                                                   | 519052    | SYSTEM O/HAUL ROTEM SIDEDR MTR | \$6,622.47  |
| 99    | SOGR                                               | 522440    | SAN GABRIEL TRAIN CNTRL REHAB  | (\$7,825.11)  | SOGR                                                   | 522011    | TRACK REHAB - INFRSTRCTRE STDY | \$6,599.01  |
| 100   | SOGR                                               | 525910    | FY25 PERRIS VLY TRACK REHAB    | (\$7,596.09)  | SOGR                                                   | 525053    | FY25 F125 LOCO INTERMEDT OVHL  | \$6,539.10  |
| 101   | SOGR                                               | 521920    | PERRIS CONS PHASE SERVICE      | (\$7,374.19)  | SOGR                                                   | 524090    | FY24 MOW VEHICLES & EQUIPMENT  | \$6,502.85  |
| 102   | SOGR                                               | 521620    | ORANGE SUB STRUCTURES REHAB    | (\$7,262.87)  | SOGR                                                   | 525910    | FY25 PERRIS VLY TRACK REHAB    | \$6,502.16  |
| 103   | SOGR                                               | 524320    | FY24 VALLEY SUB STRCTRS REHAB  | (\$7,161.02)  | SOGR                                                   | 521052    | FY21 LOCOMOTIVE PRELIM. ENG.   | \$6,442.15  |
| 104   | SOGR                                               | 524041    | FY24 BO TRAIN CNTRL SYS REHAB  | (\$6,827.37)  | SOGR                                                   | 524440    | FY24 SAN GAB TC COMM REHAB     | \$6,416.32  |
| 105   | SOGR                                               | 523010    | FY23 TRACK REHAB GRINDING      | (\$6,657.09)  | SOGR                                                   | 521041    | SYSTEMWIDE TRAIN CONTROL REHAB | \$6,298.67  |
| 106   | SOGR                                               | 525140    | FY25 VENTURA TC COMM REHAB     | (\$6,069.85)  | SOGR                                                   | 525063    | FY25 SCADA SYSTM INSTL & MCC   | \$6,091.19  |
| 107   | SOGR                                               | 519430    | SAN GABRIEL GRADE XING REHAB   | (\$5,877.11)  | SOGR                                                   | 524411    | FY24 SHORT WAY SUB TRK REHAB   | \$5,279.21  |
| 108   | SOGR                                               | 524090    | FY24 MOW VEHICLES & EQUIPMENT  | (\$5,412.95)  | SOGR                                                   | 521040    | TRAIN CONTROL SYSTEMS REHAB    | \$4,833.97  |
| 109   | SOGR                                               | 519732    | RIVER WB P1 SIG SYS REHAB      | (\$5,312.19)  | SOGR                                                   | 521620    | ORANGE SUB STRUCTURES REHAB    | \$4,248.08  |
| 110   | SOGR                                               | 525310    | FY25 VALLEY SUB TRACK REHAB    | (\$4,733.47)  | SOGR                                                   | 525720    | FY25 RIVER STRCTR DSGN DRN IMP | \$3,963.23  |
| 111   | SOGR                                               | 522240    | VENTURA (LA) TRAIN CNTRL REHAB | (\$4,588.12)  | SOGR                                                   | 523640    | FY23 ORANGE TRN CTRL REHAB COM | \$3,956.02  |
| 112   | SOGR                                               | 524440    | FY24 SAN GAB TC COMM REHAB     | (\$4,489.26)  | SOGR                                                   | 522440    | SAN GABRIEL TRAIN CNTRL REHAB  | \$3,808.44  |
| 113   | SOGR                                               | 522940    | PVL SUB TRAIN CNTRL REHAB COMM | (\$4,258.92)  | SOGR                                                   | 521520    | OLIVE SUB STRUCTURES REHAB     | \$3,798.62  |
| 114   | SOGR                                               | 522140    | VENTURA (VC) TRAIN CNTRL REHAB | (\$4,132.90)  | SOGR                                                   | 519732    | RIVER WB P1 SIG SYS REHAB      | \$3,696.28  |
| 115   | SOGR                                               | 523640    | FY23 ORANGE TRN CTRL REHAB COM | (\$4,009.45)  | SOGR                                                   | 519054    | SYSTEM RUBBR WNDW GASKET REPL  | \$3,586.93  |
| 116   | SOGR                                               | 525720    | FY25 RIVER STRCTR DSGN DRN IMP | (\$3,814.26)  | SOGR                                                   | 525930    | FY25 PERRIS VLY TC SIGNL REHAB | \$3,533.74  |
| 117   | SOGR                                               | 521050    | ROLLING STOCK REHABILITATION   | (\$3,812.53)  | SOGR                                                   | 525055    | FY25 MP36 OUT OF SVC LOCO RHAB | \$3,468.37  |
| 118   | SOGR                                               | 522930    | PVL TRAIN CNTRL REHAB SIG      | (\$3,612.85)  | SOGR                                                   | 521420    | SAN GABRIEL STRUCTURES REHAB   | \$3,406.52  |
| 119   | SOGR                                               | 522010    | FY22 TRACK REHAB GRINDING      | (\$3,100.67)  | SOGR                                                   | 524054    | FY24 MP36 LOCO OVERHAUL        | \$3,000.54  |
| 120   | SOGR                                               | 521110    | VENTURA (VC) SUB TRACK REHAB   | (\$3,085.03)  | SOGR                                                   | 525040    | FY25 OB TRAIN CNTRL SYS REHAB  | \$2,865.37  |
| 121   | SOGR                                               | 524140    | FY24 VENTURA TC COMM REHAB     | (\$2,986.93)  | SOGR                                                   | 521120    | VENTURA (VC) STRUCTURE REHAB   | \$2,785.60  |
| 122   | SOGR                                               | 525041    | FY25 BO TRAIN CNTRL SYS REHAB  | (\$2,933.70)  | SOGR                                                   | 525057    | FY25 OUT-OF-SERVICE CAR REPAIR | \$2,737.96  |
| 123   | SOGR                                               | 525090    | FY25 MOW & OPS VHCLS & EQUIP   | (\$2,933.70)  | SOGR                                                   | 525041    | FY25 BO TRAIN CNTRL SYS REHAB  | \$2,713.69  |

**Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL**  
**STATE OF GOOD REPAIR PROJECTS**

| COUNT     | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |                   | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |             |                 |
|-----------|----------------------------------------------------|-----------|--------------------------------|-------------------|--------------------------------------------------------|-----------|--------------------------------|-------------|-----------------|
|           | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES          | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS |                 |
| 124       | SOG                                                | 524132    | FY24 VCTC SIGNAL REHAB         | (\$2,721.26)      | SOG                                                    | 521110    | VENTURA (VC) SUB TRACK REHAB   | \$2,657.56  |                 |
| 125       | SOG                                                | 519055    | SYSTEM PSHBK CPLR O/HAUL ROTEM | (\$2,674.17)      | SOG                                                    | 525090    | FY25 MOW & OPS VHCLS & EQUIP   | \$2,468.85  |                 |
| 126       | SOG                                                | 521520    | OLIVE SUB STRUCTURES REHAB     | (\$2,667.78)      | SOG                                                    | 522010    | FY22 TRACK REHAB GRINDING      | \$1,970.62  |                 |
| 127       | SOG                                                | 525055    | FY25 MP36 OUT OF SVC LOCO RHAB | (\$2,636.48)      | SOG                                                    | 524062    | FY24 LAUS MAIN WATER LN RPLCMT | \$1,895.60  |                 |
| 128       | SOG                                                | 525057    | FY25 OUT-OF-SERVICE CAR REPAIR | (\$2,514.60)      | SOG                                                    | 524140    | FY24 VENTURA TC COMM REHAB     | \$1,838.88  |                 |
| 129       | SOG                                                | 525020    | FY25 SYSTMWD STRCTR MAINT      | (\$2,416.84)      | SOG                                                    | 519430    | SAN GABRIEL GRADE XING REHAB   | \$1,836.44  |                 |
| 130       | SOG                                                | 519730    | RIVER SIGNAL REHAB             | (\$2,353.99)      | SOG                                                    | 525020    | FY25 SYSTMWD STRCTR MAINT      | \$1,773.57  |                 |
| 131       | SOG                                                | 524063    | FY24 STORM WATER OIL SPR RPMT  | (\$2,106.25)      | SOG                                                    | 522310    | FY22 VALLEY SUB TRACK REHAB    | \$1,453.33  |                 |
| 132       | SOG                                                | 522910    | FY22 PVL CONSTRUCTION PHASE    | (\$2,016.60)      | SOG                                                    | 524121    | FY24 VENTURA (VC) STRCTR REHAB | \$1,373.33  |                 |
| 133       | SOG                                                | 525440    | FY25 SAN GAB TC COMM REHAB     | (\$1,493.94)      | SOG                                                    | 525052    | FY25 LDVR & CAMERA RPLCMT      | \$1,263.13  |                 |
| 134       | SOG                                                | 521411    | SAN GABRIEL TRACK REHAB        | (\$1,489.79)      | SOG                                                    | 524063    | FY24 STORM WATER OIL SPR RPMT  | \$1,105.78  |                 |
| 135       | SOG                                                | 520340    | VALLEY ATCS/PTC/CIS/BACKHAUL   | (\$1,387.54)      | SOG                                                    | 519310    | VALLEY TNNL 25 TRACK REHAB     | \$1,069.84  |                 |
| 136       | SOG                                                | 522410    | FY22 SAN GABRIEL TRACK REHAB   | (\$1,280.55)      | SOG                                                    | 520052    | OVERHAUL ROTEM DR MECH & COMPO | \$843.45    |                 |
| 137       | SOG                                                | 525051    | FY25 ROTEM HVAC OVERHAUL       | (\$1,257.30)      | SOG                                                    | 525440    | FY25 SAN GAB TC COMM REHAB     | \$819.14    |                 |
| 138       | SOG                                                | 523055    | FY23 HVAC AIR QLTY SOL-C-19    | (\$1,219.18)      | SOG                                                    | 522090    | FY22 MOW VEHICLES & EQUIPMENT  | \$710.61    |                 |
| 139       | SOG                                                | 520420    | SG SUB - STRUC REHAB           | (\$1,046.44)      | SOG                                                    | 519730    | RIVER SIGNAL REHAB             | \$624.26    |                 |
| 140       | SOG                                                | 522310    | FY22 VALLEY SUB TRACK REHAB    | (\$988.15)        | SOG                                                    | 525054    | FY25 ROLL STK FLT PA/PEI COMM  | \$551.39    |                 |
| 141       | SOG                                                | 521120    | VENTURA (VC) STRUCTURE REHAB   | (\$803.85)        | SOG                                                    | 522410    | FY22 SAN GABRIEL TRACK REHAB   | \$539.82    |                 |
| 142       | SOG                                                | 524121    | FY24 VENTURA (VC) STRCTR REHAB | (\$627.87)        | SOG                                                    | 521411    | SAN GABRIEL TRACK REHAB        | \$472.92    |                 |
| 143       | SOG                                                | 521420    | SAN GABRIEL STRUCTURES REHAB   | (\$627.84)        | SOG                                                    | 525072    | FY25 REHAB OF NTRWK INFRSTR    | \$419.10    |                 |
| 144       | SOG                                                | 524120    | FY24 ARROYO SIMI BRDG - DK RPR | (\$627.84)        | SOG                                                    | 525062    | FY25 CMF HVAC REPLACEMENT      | \$380.08    |                 |
| 145       | SOG                                                | 524131    | FY24 SPRING ROAD SIG IMPRVEMNT | (\$627.84)        | SOG                                                    | 525051    | FY25 ROTEM HVAC OVERHAUL       | \$359.29    |                 |
| 146       | SOG                                                | 519033    | SB SHORTWAY GRADE XING REHAB   | (\$527.20)        | SOG                                                    | 520420    | SG SUB - STRUC REHAB           | \$313.70    |                 |
| 147       | SOG                                                | 525054    | FY25 ROLL STK FLT PA/PEI COMM  | (\$419.10)        | SOG                                                    | 520310    | VALLEY SUB TRACK REHAB         | \$242.23    |                 |
| 148       | SOG                                                | 525072    | FY25 REHAB OF NTRWK INFRSTR    | (\$419.10)        | SOG                                                    | 520340    | VALLEY ATCS/PTC/CIS/BACKHAUL   | \$239.49    |                 |
| 149       | SOG                                                | 572002    | CALAFIA BEACH CROSSING REHAB   | (\$418.57)        | SOG                                                    | 519055    | SYSTEM PSHBK CPLR O/HAUL ROTEM | \$237.23    |                 |
| 150       | SOG                                                | 524130    | FY24 VENTURA TC SIGNAL REHAB   | (\$418.57)        | SOG                                                    | 519033    | SB SHORTWAY GRADE XING REHAB   | \$230.92    |                 |
| 151       | SOG                                                | 522090    | FY22 MOW VEHICLES & EQUIPMENT  | (\$209.27)        | SOG                                                    | 524120    | FY24 ARROYO SIMI BRDG - DK RPR | \$209.27    |                 |
| 152       | SOG                                                | 521710    | WEST BANK RIVER TRACK REHAB    | (\$97.55)         | SOG                                                    | 520051    | HVAC OVERHAUL 40 ROTEMCARS PH2 | \$176.79    |                 |
| 153       | SOG                                                | 520940    | PVL ATCS/PTC/CIS/BACKHAUL      | (\$1.57)          | SOG                                                    | 572304    | VALLEY SUB TRACK REHAB AVL     | \$81.00     |                 |
| 154       | SOG                                                | 523091    | GENERAL IT EQPMNT & SSTM REHAB | (\$0.00)          | SOG                                                    | 521710    | WEST BANK RIVER TRACK REHAB    | \$28.15     |                 |
| 155       | SOG                                                | 519003    | SYS PTC LAB SYS SUPPORT&TEST   | \$0.00            | SOG                                                    | 572009    | CP MISSION TRACK               | \$24.76     |                 |
| 156       | SOG                                                | 519064    | SYSTEM STATION ENVLPE RPR/REPL | \$0.00            | SOG                                                    | 522910    | FY22 PVL CONSTRUCTION PHASE    | \$15.40     |                 |
| 157       | SOG                                                | 519160    | VENT VC REPL MOORPARK TLR      | \$0.00            | SOG                                                    | 520053    | MP36 LOCO & TIER IV STUDY      | \$3.27      |                 |
| SOG Total |                                                    |           |                                | (\$17,745,998.42) | SOG Total                                              |           |                                |             | \$18,339,361.33 |

## Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL

### CAPITAL PROJECTS

| COUNT         | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |                  | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |                |                |
|---------------|----------------------------------------------------|-----------|--------------------------------|------------------|--------------------------------------------------------|-----------|--------------------------------|----------------|----------------|
|               | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES         | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS    |                |
| 1             | CAPITAL                                            | 426091    | OPEN LOOP PAYMENT PILOT PRGM   | (\$1,055,937.83) | CAPITAL                                                | 419004    | OC SAN JUAN CREEK BRIDGE       | \$2,250,449.60 |                |
| 2             | CAPITAL                                            | 419004    | OC SAN JUAN CREEK BRIDGE       | (\$1,027,741.67) | CAPITAL                                                | 423090    | FY23 PMIS PURCHASE & CONF      | \$506,360.54   |                |
| 3             | CAPITAL                                            | 423090    | FY23 PMIS PURCHASE & CONF      | (\$666,174.46)   | CAPITAL                                                | 450123    | PTC WAYSIDE HARDWARE           | \$279,452.24   |                |
| 4             | CAPITAL                                            | 423091    | (EAM) IMPRV PROJ - PHASE II    | (\$199,036.42)   | CAPITAL                                                | 423091    | (EAM) IMPRV PROJ - PHASE II    | \$205,430.32   |                |
| 5             | CAPITAL                                            | 450123    | PTC WAYSIDE HARDWARE           | (\$131,635.17)   | CAPITAL                                                | 424060    | FY24 EV INFRASTRUCTURE         | \$137,738.86   |                |
| 6             | CAPITAL                                            | 424090    | FY24 PMIS IT PRJCT SPRT        | (\$115,463.70)   | CAPITAL                                                | 450130    | LEVERAGE PTC - INCR CAPACITY   | \$114,088.73   |                |
| 7             | CAPITAL                                            | 424060    | FY24 EV INFRASTRUCTURE         | (\$89,994.75)    | CAPITAL                                                | 425040    | FY25 NEW TRAIN CTRL SMLTR      | \$73,923.59    |                |
| 8             | CAPITAL                                            | 450130    | LEVERAGE PTC - INCR CAPACITY   | (\$62,832.97)    | CAPITAL                                                | 424090    | FY24 PMIS IT PRJCT SPRT        | \$70,232.66    |                |
| 9             | CAPITAL                                            | 423061    | FY23 CMF MOD PH 1 DES & ENV    | (\$39,317.53)    | CAPITAL                                                | 450121    | PTC UPSCALING ONBOARD          | \$55,129.38    |                |
| 10            | CAPITAL                                            | 425090    | FY25 PMIS IT PRJCT SPRT        | (\$38,738.16)    | CAPITAL                                                | 420310    | BURBANK CORRIDOR SAFETY IMPROV | \$43,537.75    |                |
| 11            | CAPITAL                                            | 420001    | RIVERSIDE YARD SWITCH          | (\$29,054.29)    | CAPITAL                                                | 425090    | FY25 PMIS IT PRJCT SPRT        | \$33,666.01    |                |
| 12            | CAPITAL                                            | 624054    | FY24 PASSENGER CABIN CCTV      | (\$21,799.45)    | CAPITAL                                                | 672601    | Tier 4 Locomotives             | \$31,017.59    |                |
| 13            | CAPITAL                                            | 672601    | Tier 4 Locomotives             | (\$19,174.37)    | CAPITAL                                                | 423061    | FY23 CMF MOD PH 1 DES & ENV    | \$26,447.96    |                |
| 14            | CAPITAL                                            | 425061    | FY25 EV INFRASTRUCTURE         | (\$15,510.37)    | CAPITAL                                                | 450120    | PTC UPSCALING PROJECT ADMIN    | \$25,014.09    |                |
| 15            | CAPITAL                                            | 472501    | FUEL EFFICIENCY STUDY          | (\$14,295.34)    | CAPITAL                                                | 616002    | TIER 4 LOCOMOTIVES 21-37       | \$20,710.71    |                |
| 16            | CAPITAL                                            | 420310    | BURBANK CORRIDOR SAFETY IMPROV | (\$12,188.81)    | CAPITAL                                                | 425061    | FY25 EV INFRASTRUCTURE         | \$8,396.95     |                |
| 17            | CAPITAL                                            | 425040    | FY25 NEW TRAIN CTRL SMLTR      | (\$5,876.68)     | CAPITAL                                                | 624054    | FY24 PASSENGER CABIN CCTV      | \$7,095.80     |                |
| 18            | CAPITAL                                            | 624001    | SPECIALIZED MAINT EQUIP PH 2   | (\$5,314.52)     | CAPITAL                                                | 624052    | FY24 COMM SYSTM OVRHL PHASE I  | \$4,737.23     |                |
| 19            | CAPITAL                                            | 616002    | TIER 4 LOCOMOTIVES 21-37       | (\$3,539.77)     | CAPITAL                                                | 420001    | RIVERSIDE YARD SWITCH          | \$2,937.60     |                |
| 20            | CAPITAL                                            | 624052    | FY24 COMM SYSTM OVRHL PHASE I  | (\$292.53)       | CAPITAL                                                | 624001    | SPECIALIZED MAINT EQUIP PH 2   | \$2,672.88     |                |
| 21            | CAPITAL                                            | 624053    | FY24 PASSNGR CAR LUGGAGE RACK  | (\$201.12)       | CAPITAL                                                | 425460    | AMF JACKS                      | \$1,761.29     |                |
| 22            | CAPITAL                                            | 624050    | FY24 SMART MAINT - PHASE II    | (\$201.12)       | CAPITAL                                                | 624053    | FY24 PASSNGR CAR LUGGAGE RACK  | \$271.65       |                |
| 23            |                                                    |           |                                |                  | CAPITAL                                                | 450122    | PTS WAYSIDE UPGRADE            | \$128.60       |                |
| 24            |                                                    |           |                                |                  | CAPITAL                                                | 425091    | FY25 PTC COLOCATION PHASE 2    | \$83.06        |                |
| 25            |                                                    |           |                                |                  | CAPITAL                                                | 421110    | DEVONSHIRE ST CROSSING IMPROV  | \$0.00         |                |
| 26            |                                                    |           |                                |                  | CAPITAL                                                | 426091    | OPEN LOOP PAYMENT PILOT PRGM   | \$0.00         |                |
| CAPITAL Total |                                                    |           |                                | (\$3,554,321.03) | CAPITAL Total                                          |           |                                |                | \$3,901,285.09 |

## Q4 FY 2026 ELIGIBLE CAPITAL PROJECT ACTIVITY DETAIL

### SCORE PROJECTS

| COUNT       | EXPENSES PAID FROM OPERATIONS ACCOUNT DUE FROM WCF |           |                                |                  | COLLECTIONS RECEIVED INTO OPERATING ACCOUNT DUE TO WCF |           |                                |                |                |
|-------------|----------------------------------------------------|-----------|--------------------------------|------------------|--------------------------------------------------------|-----------|--------------------------------|----------------|----------------|
|             | PROJECT TYPE                                       | PROJECT # | PROJECT NAME                   | EXPENSES         | PROJECT TYPE                                           | PROJECT # | PROJECT NAME                   | COLLECTIONS    |                |
| 1           | SCORE                                              | 462803    | BNSF FULLRTN INTERLOCKR PA&ED  | (\$815,462.14)   | SCORE                                                  | 462050    | PH 1 BOMBARDIER REHAB CONST    | \$2,040,795.77 |                |
| 2           | SCORE                                              | 462050    | PH 1 BOMBARDIER REHAB CONST    | (\$404,470.64)   | SCORE                                                  | 461701    | LINK UNION STATION PS&E        | \$381,748.35   |                |
| 3           | SCORE                                              | 461804    | Fullertn-Raymnd to ATWD TRK 3  | (\$351,012.91)   | SCORE                                                  | 461401    | EL MONTE STN IMP PS&E          | \$378,646.71   |                |
| 4           | SCORE                                              | 461305    | Lancaster Terminal IMP PS&E    | (\$282,343.58)   | SCORE                                                  | 461304    | Canyon Siding Ext Proj PS&E    | \$337,830.78   |                |
| 5           | SCORE                                              | 461303    | Balboa Double Track Ext PS&E   | (\$279,410.95)   | SCORE                                                  | 462801    | NETWORK INTEG FLTN TO SB CONS  | \$257,590.93   |                |
| 6           | SCORE                                              | 461401    | EL MONTE STN IMP PS&E          | (\$143,607.11)   | SCORE                                                  | 461403    | RANCHO SIDING EXT PS&E         | \$170,271.21   |                |
| 7           | SCORE                                              | 461701    | LINK UNION STATION PS&E        | (\$130,022.51)   | SCORE                                                  | 461303    | Balboa Double Track Ext PS&E   | \$162,682.32   |                |
| 8           | SCORE                                              | 462402    | MARENGO SIDING EXT CONSTR      | (\$128,099.91)   | SCORE                                                  | 463101    | SIMI VALLEY DBL TRK ROW        | \$132,016.34   |                |
| 9           | SCORE                                              | 463201    | CHATSWORTH STN PED UNDRPAS ROW | (\$114,793.10)   | SCORE                                                  | 461804    | Fullertn-Raymnd to ATWD TRK 3  | \$115,479.61   |                |
| 10          | SCORE                                              | 461304    | Canyon Siding Ext Proj PS&E    | (\$99,789.04)    | SCORE                                                  | 461101    | SIMI VALLY DBL TRK VC VC PS&E  | \$108,649.96   |                |
| 11          | SCORE                                              | 461101    | SIMI VALLY DBL TRK VC VC PS&E  | (\$98,285.72)    | SCORE                                                  | 462402    | MARENGO SIDING EXT CONSTR      | \$93,422.61    |                |
| 12          | SCORE                                              | 462403    | RANCHO SIDING EXT CONSTR       | (\$85,878.43)    | SCORE                                                  | 461305    | Lancaster Terminal IMP PS&E    | \$84,152.80    |                |
| 13          | SCORE                                              | 461403    | RANCHO SIDING EXT PS&E         | (\$65,899.49)    | SCORE                                                  | 461103    | Ventura Sub TRK & STR REH PKG  | \$48,886.32    |                |
| 14          | SCORE                                              | 463101    | SIMI VALLEY DBL TRK ROW        | (\$45,931.11)    | SCORE                                                  | 461406    | Lilac to Sycamore Double Track | \$46,728.05    |                |
| 15          | SCORE                                              | 461406    | Lilac to Sycamore Double Track | (\$41,709.69)    | SCORE                                                  | 461201    | CHATSWRTH STN IMP VNT LA PS&E  | \$37,995.85    |                |
| 16          | SCORE                                              | 461201    | CHATSWRTH STN IMP VNT LA PS&E  | (\$34,527.38)    | SCORE                                                  | 461105    | Devonshire Street GRD Crossing | \$29,101.22    |                |
| 17          | SCORE                                              | 461102    | Sequoia Ave GRD Cross Prj PSE  | (\$33,206.66)    | SCORE                                                  | 462606    | SP LA PALMA CONST.             | \$23,420.36    |                |
| 18          | SCORE                                              | 460407    | Eastern Maint Fac. Devp PA&ED  | (\$28,439.69)    | SCORE                                                  | 462701    | LINK UNION STATION CONSTR      | \$23,207.60    |                |
| 19          | SCORE                                              | 462701    | LINK UNION STATION CONSTR      | (\$27,191.06)    | SCORE                                                  | 461402    | MARENGO SIDING IMP PS&E        | \$23,002.01    |                |
| 20          | SCORE                                              | 461606    | SP LA PALMA PS&E               | (\$21,234.10)    | SCORE                                                  | 461102    | Sequoia Ave GRD Cross Prj PSE  | \$21,755.37    |                |
| 21          | SCORE                                              | 461105    | Devonshire Street GRD Crossing | (\$20,647.12)    | SCORE                                                  | 460407    | Eastern Maint Fac. Devp PA&ED  | \$21,301.39    |                |
| 22          | SCORE                                              | 461402    | MARENGO SIDING IMP PS&E        | (\$14,556.54)    | SCORE                                                  | 461104    | Tunnel 26 TRK & Structures     | \$11,776.05    |                |
| 23          | SCORE                                              | 463401    | EL MONTE STATION IMPROVE       | (\$13,746.88)    | SCORE                                                  | 462403    | RANCHO SIDING EXT CONSTR       | \$6,163.37     |                |
| 24          | SCORE                                              | 462606    | SP LA PALMA CONST.             | (\$8,567.12)     | SCORE                                                  | 462101    | SIMI VALLEY DBL TRK CONST      | \$2,671.80     |                |
| 25          | SCORE                                              | 461202    | Chatsworth Station Pedestrian  | (\$6,231.68)     | SCORE                                                  | 462002    | FLEET & FACIL PH 1 OCMF CONST  | \$1,294.03     |                |
| 26          | SCORE                                              | 460904    | CP Riverside 2 Crossover PA&ED | (\$4,731.68)     | SCORE                                                  | 461202    | Chatsworth Station Pedestrian  | \$1,157.81     |                |
| 27          | SCORE                                              | 462103    | Ventura Sub TRK & STRC REH PKG | (\$4,031.23)     | SCORE                                                  | 461106    | Katherine Tampa Grade Crossing | \$368.40       |                |
| 28          | SCORE                                              | 461106    | Katherine Tampa Grade Crossing | (\$3,447.69)     | SCORE                                                  | 461404    | Tyler AVE GRD CRSSING IMP PS&E | \$0.00         |                |
| 29          | SCORE                                              | 461405    | COGSWELL RD GRD CRSNG IMP PS&E | (\$2,909.67)     | SCORE                                                  | 461405    | COGSWELL RD GRD CRSNG IMP PS&E | \$0.00         |                |
| 30          | SCORE                                              | 462801    | NETWORK INTEG FLTN TO SB CONS  | (\$1,606.25)     | SCORE                                                  | 462802    | BNSF FULLRTN INTERLOCKER PA&ED | \$0.00         |                |
| 31          | SCORE                                              | 461404    | Tyler AVE GRD CRSSING IMP PS&E | (\$1,092.03)     | SCORE                                                  | 462803    | BNSF FULLRTN INTERLOCKR PA&ED  | \$0.00         |                |
| 32          | SCORE                                              | 462802    | BNSF FULLRTN INTERLOCKER PA&ED | (\$1,033.39)     | SCORE                                                  | 463201    | CHATSWORTH STN PED UNDRPAS ROW | \$0.00         |                |
| 33          | SCORE                                              | 462104    | Tunnel 26 Track & Structures   | (\$546.91)       |                                                        |           |                                |                |                |
| 34          | SCORE                                              | 462101    | SIMI VALLEY DBL TRK CONST      | (\$416.26)       |                                                        |           |                                |                |                |
| 35          | SCORE                                              | 461103    | Ventura Sub TRK & STR REH PKG  | \$0.00           |                                                        |           |                                |                |                |
| 36          | SCORE                                              | 461104    | Tunnel 26 TRK & Structures     | \$0.00           |                                                        |           |                                |                |                |
| 37          | SCORE                                              | 462002    | FLEET & FACIL PH 1 OCMF CONST  | \$0.00           |                                                        |           |                                |                |                |
| SCORE Total |                                                    |           |                                | (\$3,314,879.67) | SCORE Total                                            |           |                                |                | \$4,562,117.02 |





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## FY2025-26 Working Capital Fund (WCF) Report Quarter Ended June 30, 2026

*Receive and file.*

# Summary of Q4 FY26 Working Capital Fund Activity

- The Working Capital Fund (WCF) was established to provide liquidity to fund the reimbursement cycle for grant-funded capital projects.
- WCF advance and repayment activity was successfully launched in November of 2025.
- Over 200 eligible Capital Program projects received total advance funding of \$24.6 million from the WCF in Q4 FY26.
- The WCF account balance as of June 30, 2026, was \$29M.
- WCF activity and reporting are in compliance with all Policy and SOP parameters.

## Q4 FY26 WCF Bank Account Activity and Balances

| Breakdown of Activity       | April                | May                  | June                 | TOTAL                |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|
| Beginning Month Balance     | \$26,640,688.08      | \$23,638,881.83      | \$24,950,444.03      | \$26,640,688.08      |
| Capital Collections*        | 2,705,162.90         | 10,982,290.26        | 13,114,240.44        | 26,801,693.60        |
| Capital Expenses*           | (5,763,523.04)       | (9,723,432.12)       | (9,128,243.96)       | (24,615,199.12)      |
| Interest Received           | 56,553.89            | 52,704.06            | 55,361.82            | 164,619.77           |
| <b>Ending Month Balance</b> | <b>23,638,881.83</b> | <b>24,950,444.03</b> | <b>28,991,802.33</b> | <b>28,991,802.33</b> |

*\*May project activity is reflected in June WCF balances, as true-up transfers between the WCF and Operational bank accounts are made the following month after reconciliation of expenses and collections.*

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# Q4 FY26 Member Agency WCF Balances and Interest Earned

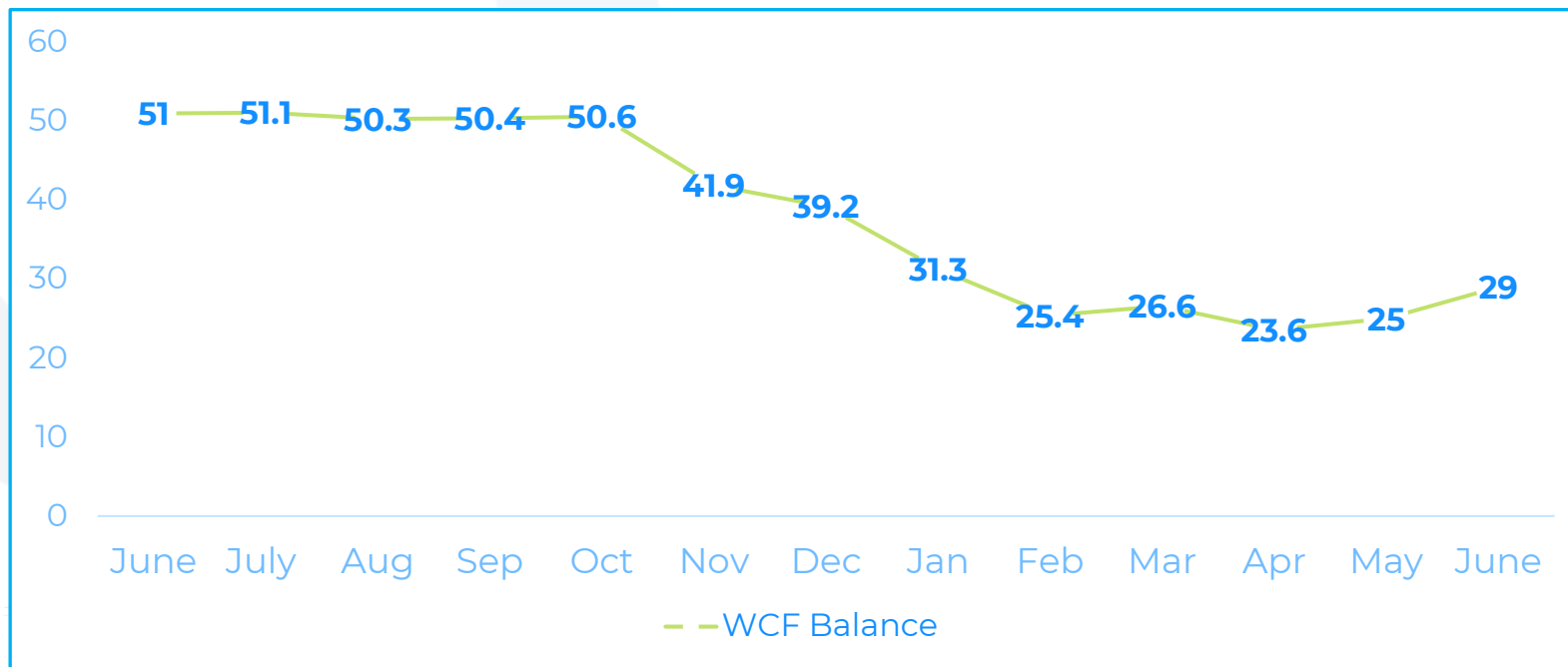
| Q4 FY26                | LACMTA              | OCTA              | RCTC              | SBCTA             | VCTC              | TOTAL               |
|------------------------|---------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| Beginning Balance      | \$15,604,919.92     | \$3,810,283.58    | \$2,539,214.87    | \$2,840,324.52    | \$1,845,945.17    | \$26,640,688.08     |
| Plus: Interest Earned  | 96,434.26           | 23,540.63         | 15,688.26         | 17,548.47         | 11,408.15         | 164,619.77          |
| Plus: Net WCF Activity | <u>1,280,848.47</u> | <u>312,668.71</u> | <u>208,372.92</u> | <u>233,080.31</u> | <u>151,524.07</u> | <u>2,186,494.48</u> |
| Ending Balance         | \$16,982,202.65     | \$4,146,492.92    | \$2,763,276.06    | \$3,090,953.30    | \$2,008,877.39    | \$28,991,802.33     |
| % Allocation*          | 58.58%              | 14.30%            | 9.53%             | 10.66%            | 6.93%             | <b>100.00%</b>      |

*\*All WCF activity, including interest earned, deposits, and repayment/(advances) is based upon track miles %.*

# WCF Month Ending Balance Trend

## June 2025 – June 2026

*\$ in Millions*





A Metrolink train is shown from a side-on perspective, moving along a track that runs parallel to a beach. The train is white with blue and grey horizontal stripes. The word "METROLINK" is printed in large blue letters on the side of the lead car, and the number "605" is visible below it. The train is positioned on the left side of the frame. To the right of the train is a rocky embankment, followed by a sandy beach. The ocean is visible on the far right, with waves breaking. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The overall scene is peaceful and scenic.

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Thank you.

[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-208-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** FY2025-26 Preliminary Quarterly Investment Report - Quarter Ended June 30, 2026

**Issue**

The Authority's Annual Investment Policy requires the Treasurer to make a quarterly investment report to the Board of Directors. Section 53646 of the California Government Code encourages local agencies to file this report and provides requirements for report content and disclosures. This report is for the quarter ended June 30, 2026, and contains estimated information published prior to the conclusion of the Authority's fiscal year close and is subject to adjustment.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair, investing in the development of our employees and maintaining fiscal sustainability.

**Background**

The objective of the Authority's investment strategy is to ensure that its funds are prudently invested to preserve capital, provide necessary liquidity, and achieve a market-average rate of return through economic cycles.

The Authority's funds are held in a variety of qualified financial institutions as indicated in the table below. The Authority's main operating accounts are maintained with U.S. Bank. The Authority also maintains savings and investment accounts with U.S. Bank, the State of California's Local Agency Investment Fund (LAIF), and Bank of Montreal (BMO).

## **Discussion**

The Authority's total cash and investments decreased approximately \$28.9 million from the prior quarter, however, the March quarter end balance was unusually high due to the early collection of the LACMTA Q4 Member Support payment typically received in April. The balance of \$221.0 million in total cash and investments compares favorably to \$203 million in the prior year's comparable quarter.

| <b>Cash and Investment Portfolio as of June 30, 2026</b> |             |                |
|----------------------------------------------------------|-------------|----------------|
| <i>(\$ in millions)</i>                                  |             |                |
| <b>Restricted Funds</b>                                  |             |                |
| LAIF - State Funds                                       | \$6.0       |                |
| LAIF - VCTC Local Funds                                  | 17.9        | <u>23.9</u>    |
| <b>Unrestricted Funds</b>                                |             |                |
| U.S. Bank Operating Account                              | 102.5       |                |
| U.S. Bank WCF Account                                    | 29.0        |                |
| BMO Board Threshold Account                              | 50.0        |                |
| U.S. Bank Reserve Bank Account                           | <u>15.6</u> | <u>197.1</u>   |
| <b>Total Estimated Net Cash and Investments</b>          |             | <u>\$221.0</u> |

## **Restricted Funds**

### **Local Agency Investment Fund (LAIF) State Grant Funds Account**

The balance in the Authority's LAIF state grant funds account of \$6.0 million is funded by various grants and accumulated interest earnings earmarked for existing Operating, Capital, and State of Good Repair projects. The active projects are listed in Attachment B. These funds are not considered available until earned.

### **Local Agency Investment Fund (LAIF) Emergency Account**

The remaining cash balance in this LAIF account as of June 30, 2026, was \$17.9 million. As of this date, all funds in this account belong to VCTC and are not available to SCRRA unless directed by VCTC.

## **Unrestricted Funds**

### **U.S. Bank Operating Account**

The U.S. Bank operating account balance as of June 30, 2026 was \$102.5 million. This figure

reflects the reported bank statement balance less in-transit items (outstanding check float). This estimated balance is preliminary and subject to completion of the monthly bank reconciliation. These funds include TPA deposits, Member Surpluses, and other unearned revenue that is not available to SCRRA. In 2024, SCRRA Finance Staff successfully negotiated with U.S. Bank to award interest on this main operational checking account, which has provided for additional income of approximately \$2.5 million per year since that time and currently yields 2.53%.

#### **U.S. Bank Money Market Demand Account - Working Capital Fund**

In FY24, the SCRRA Board approved a \$50 million Working Capital Fund (WCF) for the purpose of providing advance funding for Capital Program expenses. \$50,000,000 has been collected and deposited in a segregated interest-bearing money market demand account at U.S. Bank. The balance in this bank account as of June 30, 2026, was \$29.0 million. Advances and repayments to the WCF account began in Q2 FY26 and are detailed in separate quarterly reports provided to the Board.

#### **BMO Money Market Demand Account - Board Threshold**

The Authority maintained a \$50.0 million principal balance in the interest-bearing BMO Money Market Demand Account (MMDA) for the quarter ending June 30, 2026. These funds are available should liquidity concerns require their use.

#### **U.S. Bank Money Market Demand Account - Reserved Funds**

While these funds are not formally restricted, from time to time management of the Authority reserves funds for particular purposes. Currently, the funds in this interest-bearing account primarily relate to available excess funds liquidated from the Fuel Hedge account, and proceeds received from locomotive asset sales. These segregated funds totaled \$15.6 million at the end of the quarter.

#### **Available Cash Analysis**

In addition to restricted bank/investment accounts (LAIF, BMO Board Threshold, US Bank WCF and Reserve), the Authority carries unearned revenue within its operating account cash balance. These deferred revenue liabilities are subject to refund and adequate liquidity must be kept available for that purpose. After consideration of both segregated bank accounts and these additional cash claims in the form of deferred revenue, SCRRA's net liquidity, or available cash as of June 30, 2026, was \$98.3 million. This represents a decrease of \$17.6 million as compared to \$115.9 million for the previous quarter end. The \$98.3 million figure is a significant increase from the prior year and is generally attributable to the use of the WCF to fund Capital expenses versus the historical use of Operations funds, as well as the transfer of substantial former litigation reserves to the Operating account subsequent to final resolution of the Oxnard matter.

The June available cash balance meets the requirement of \$50 million per the Investment Policy. Finance staff monitors SCRRA liquidity on a daily basis and adjusts to address and properly fund operations as needed.

## Available Cash Analysis June 30, 2026

*Does not include LAIF, reserved accounts, other unearned revenue  
(\$ in millions)*

### **Cash Category:**

|                         |             |
|-------------------------|-------------|
| Operating Cash Account  | 102.5       |
| Board Threshold Account | <u>50.0</u> |
| Total Operating Cash    | 152.5       |

### Less Unearned Revenue:

|                                 |              |
|---------------------------------|--------------|
| Member Agency Funds/(Grants)    | (8.1)        |
| TPA Advance Deposits            | (23.6)       |
| Member Agency Operating Surplus | (18.7)       |
| Member Agency Capital Surplus   | <u>(3.8)</u> |

**Available Cash to Spend:** \$98.3

### **Interest Earned**

Total interest earned and paid in Q4 FY26 was \$1,449,467, for a decrease of \$23,775 versus the prior quarter. Interest earned is a function of cash balances held throughout the quarter as well as fluctuating interest rates. The weighted average yield on investments in the quarter was 2.7%, equal to the prior quarter as interest rates have stabilized.

A detailed list of interest received by account is shown in Attachment A. It should be noted that interest shown represents actual cash received on all funds in SCRRA custody, which will differ from those shown in the SCRRA accrual-based operating statement and budget. LAIF and WCF interest do not accrue to SCRRA's operating statement and are for the direct benefit of external parties. All other interest is considered income to SCRRA and is budgeted and reflected as such on SCRRA Operating Statements. SCRRA is performing ahead of the Adopted Budget relative to interest income for FY26.

### **Investment Portfolio Compliance**

The composition of the investment portfolio complies with all provisions of both the Authority's Annual Investment Policy and California Government Code Section 53600, et sec.

Code Section 53646 requires all local agencies reporting on a quarterly basis to indicate the sufficiency of available monies to fund expenses for the next six months or provide an explanation as to why sufficient money shall, or may, not be available. As of June 30, 2026, SCRRA cannot confirm sufficiency to adequately fund the next six months of expenses. SCRRA relies heavily upon external subsidies to fund its on-going operating expenses and has not yet gained approval for the FY27 Budget. While adequate operational subsidies are provided for in the Authority's annual budgeting process, receipt of these subsidies can be delayed for various reasons. While the Agency maintains operating reserves in the form of the \$50M Board Threshold, this figure represents less than two months of operating expenses. In addition, operational funding may be needed in addition to the WCF to advance-fund grant reimbursable capital project expenses based on anticipated future growth in capital and



rehabilitation costs. The cumulative effect of these factors impairs the Authority's ability to provide reasonable assurance that adequate funding exists for the next six-month period, a disclosure which is expressly required for governmental agencies by Code Section 53646.

### **Next Steps**

The next Investment Report for the quarter ended September 30, 2026 will be provided to the Board in November of 2026.

Prepared by: Vivien Avella, Assistant Director, Finance  
Diana Gregana, Senior Accountant, Grants Finance  
Jeffrey Golfo, Finance Analyst I, Accounts Receivable

Approved by: Tom Schamber, Chief Financial Officer

### **Attachment(s)**

[Attachment A - FY26 Q4 Quarterly Investment Report - Investment Balances and Interest Earned](#)

[Attachment B - FY26 Quarterly Investment Report  
Presentation - FY26 Q4 Preliminary Investment Report](#)

**Attachment A - FY2025-26 Quarterly Investment Report - Quarter Ended June 30, 2026**  
**Detailed Bank/Investment Balances and Interest Comparison**

| Account                        | Purpose              | <u>This Quarter, 06/30/26 (1)</u> |               |       | <u>Last Quarter, 03/31/26 (2)</u> |               |       | <u>Prior Year, 06/30/25 (2)</u> |               |       | Change vs.<br>Last Q | Change vs.<br>Last FY |
|--------------------------------|----------------------|-----------------------------------|---------------|-------|-----------------------------------|---------------|-------|---------------------------------|---------------|-------|----------------------|-----------------------|
|                                |                      | Ending Balance                    | Interest Paid | Yield | Ending Balance                    | Interest Paid | Yield | Ending Balance                  | Interest Paid | Yield |                      |                       |
| <b><u>Restricted</u></b>       |                      |                                   |               |       |                                   |               |       |                                 |               |       |                      |                       |
| LAIF - State Grant Funds       | Various              | \$ 5,955,368                      | \$ 64,609     | 3.98% | \$ 6,465,759                      | \$ 47,220     | 4.20% | \$ 5,044,410                    | \$ 213,410    | 4.48% | \$ 17,389            | \$ (148,801)          |
| LAIF - VCTC Local Funds        | VCTC Funds           | 17,919,261                        | 178,112       | 3.98% | 18,081,149                        | 193,090       | 4.20% | 18,503,335                      | 205,323       | 4.48% | (14,978)             | (27,211)              |
| <b><u>Unrestricted</u></b>     |                      |                                   |               |       |                                   |               |       |                                 |               |       |                      |                       |
| US Bank, Money Market          | Working Capital Fund | 28,991,802                        | 164,620       | 2.63% | 26,640,688                        | 202,161       | 2.63% | 50,994,618                      | 419,350       | 3.41% | (37,541)             | (254,730)             |
| US Bank, Money Market          | Reserved             | 15,583,795                        | 77,746        | 2.02% | 15,583,049                        | 64,609        | 2.02% | 36,320,017                      | 170,636       | 2.79% | 13,137               | (92,890)              |
| US Bank, Demand Deposit        | Main Checking        | 102,530,434                       | 639,955       | 2.53% | 133,079,803                       | 645,055       | 2.53% | 42,155,380                      | 559,669       | 3.15% | (5,100)              | 80,287                |
| Bank of Montreal, Money Market | Board Threshold      | 50,005,500                        | 324,426       | 2.64% | 50,011,132                        | 321,107       | 2.64% | 50,005,963                      | 417,924       | 3.41% | 3,318                | (93,498)              |
| Total                          |                      | \$ 220,986,160                    | \$ 1,449,467  | 2.69% | \$ 249,861,580                    | \$ 1,473,243  | 2.70% | \$ 203,023,722                  | \$ 1,986,312  | 3.39% | \$ (23,775)          | \$ (536,845)          |

(1) 06.30.26 estimated, fiscal year remains open.

(2) Amounts may reflect adjustments from prior reports subsequent to completion of G/L, bank reconciliations, and fiscal year closes.

Attachment B - FY2025-26 Quarterly Investment Report  
Quarter Ended June 30, 2026

| List of State Fund Projects and Funds Deposited |                              | 06/30/26 Balance              |
|-------------------------------------------------|------------------------------|-------------------------------|
| 1                                               | LCTOP STUDENT YOUTH DISCOUNT | \$ 1,888,480.50               |
| 2                                               | RYRM                         | 1,346,775.15                  |
| 3                                               | LCTOP FARE DISCOUNT          | 3,922.59                      |
|                                                 | Sub-Total                    | <u>\$ 3,239,178.23</u>        |
|                                                 | Unallocated <sup>1</sup>     | <u>\$ 2,716,189.28</u>        |
|                                                 | Total                        | <u><u>\$ 5,955,367.51</u></u> |

<sup>1</sup>The total unallocated is programmed as follows: \$0.011M for fare reduction and \$2.705M for rehabilitation of tracks, signals, bridges and related assets. Funds are allocated to approved projects as milestone invoices are received.



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## FY2025-26 Preliminary Quarterly Investment Report Quarter Ended June 30, 2026

*Receive and file.*



# Total SCRRA Cash and Investments

## June 30, 2026

| Cash Category<br>\$ in millions   | Estimated<br>Balance<br>06.30.26 | Estimated<br>Balance<br>3.31.26 | Change          |
|-----------------------------------|----------------------------------|---------------------------------|-----------------|
| <b><u>Restricted Funds</u></b>    |                                  |                                 |                 |
| LAIF State Grant Funds/VCTC       | \$23.9                           | \$24.5                          | \$(.6)          |
| <b><u>Unrestricted Funds</u></b>  |                                  |                                 |                 |
| US Bank Operating Account         | 102.5                            | 133.1                           | (30.6)          |
| BMO MMDA – Operating Threshold    | 50.0                             | 50.0                            | 0.0             |
| US Bank MMDA – Reserved           | 15.6                             | 15.6                            | 0.0             |
| US Bank MMDA - WCF                | <u>29.0</u>                      | <u>26.6</u>                     | <u>2.4</u>      |
| <b>Total Cash and Investments</b> | <b>\$221.0</b>                   | <b>\$249.9</b>                  | <b>\$(28.9)</b> |





# SCRRA Available Cash Analysis

*Does not include restricted/reserved funds*

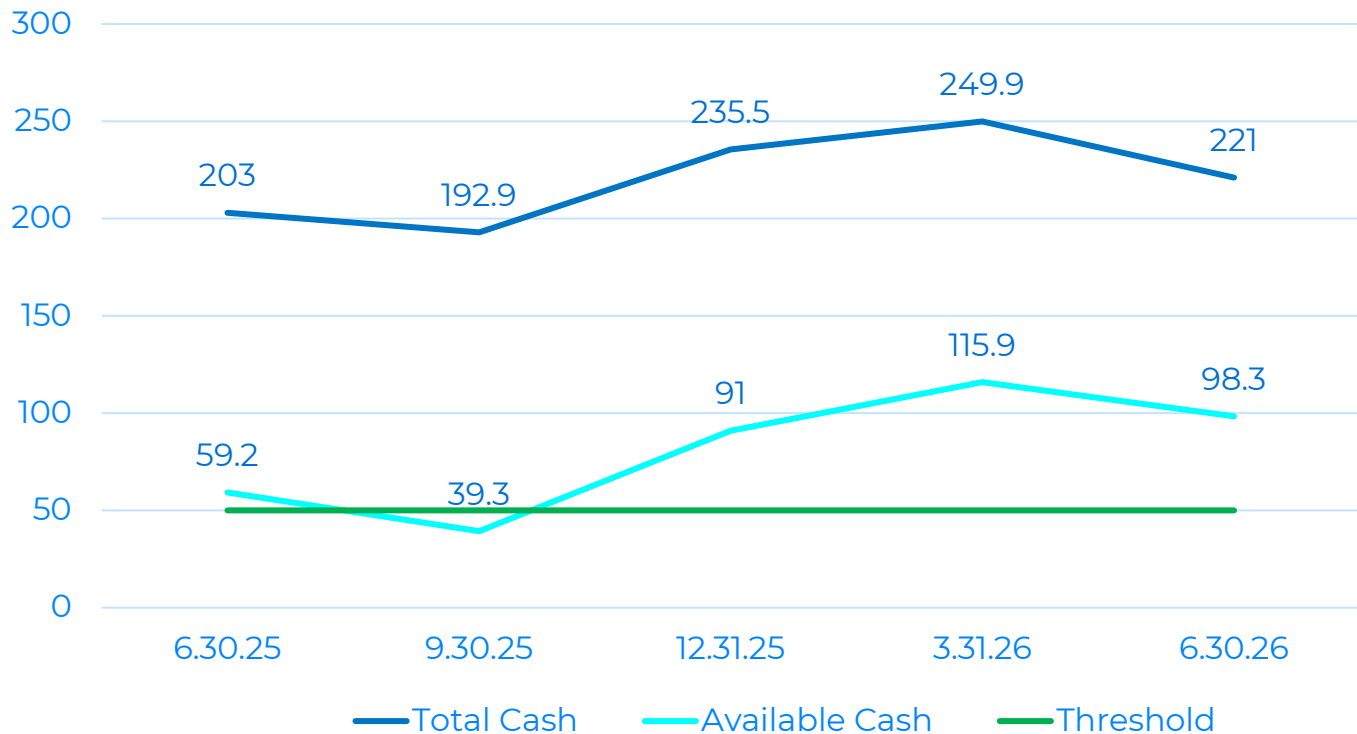
| Cash Category Breakdown<br>(\$ in millions) | April         | May           | June          |
|---------------------------------------------|---------------|---------------|---------------|
| Operating Cash                              | \$123.7       | \$119.5       | \$102.5       |
| Board Threshold                             | <u>50.0</u>   | <u>50.0</u>   | <u>50.0</u>   |
| Cash Before Claims:                         | 173.7         | 169.5         | 152.5         |
| Less: Claims on Cash                        | <u>(53.5)</u> | <u>(58.2)</u> | <u>(54.3)</u> |
| <b>Available Cash to Spend:</b>             | <b>120.3</b>  | <b>111.4</b>  | <b>98.3</b>   |

*Estimated preliminary figures, subject to completion of fiscal year end close.*



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## Trend Comparison of SCRRA Cash Balances Q4 FY25 – Q4 FY26 \$ in millions





# Q4 FY26 Interest Income Received

| Category of Funds              | Interest Q4<br>FY26 | Interest Q3<br>FY26 | Change            |
|--------------------------------|---------------------|---------------------|-------------------|
| <u>Restricted Funds</u>        |                     |                     |                   |
| LAIF – State Funds/VCTC        | \$242,720           | \$240,310           | \$2,410           |
| <u>Unrestricted Funds</u>      |                     |                     |                   |
| US Bank Concentration          | 639,955             | 645,055             | (5,100)           |
| US Bank MMDA/Reserved          | 77,746              | 64,609              | 13,137            |
| US Bank MMDA/WCF               | 164,620             | 202,161             | (37,541)          |
| BMO MMDA/Board<br>Threshold    | <u>324,426</u>      | <u>321,107</u>      | <u>3,318</u>      |
| <b>Total Interest Received</b> | <b>\$1,449,467</b>  | <b>\$1,473,243</b>  | <b>\$(23,775)</b> |



## Required Quarterly Investment Report Disclosures (3)

### California Government Code Section 53646:

- (1) Compliance with Investment Policy:
  - There are no known instances of non-compliance for the quarter.
- (2) Six-Month Cash Sufficiency:
  - SCRRA cannot confirm sufficiency to fund next six months.
    - Code Section 53646 Required Explanation:
      - Operations funding is partially derived from external grants with potentially delayed/unknown date of receipt.
      - Operations funding is heavily dependent upon Member Support.
      - SCRRA has not secured Board approval on the FY27 Budget.

### SCRRA Statement of Investment Policy:

- (1) \$50 M Board Threshold
  - Available cash above threshold has been met.





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Thank you.





[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-207-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** FY2025-26 Preliminary Quarterly Accounts Receivable Status Report - Quarter Ended June 30, 2026

### **Issue**

This report presents an update on the Authority's Accounts Receivable for the quarter ended June 30, 2026. The report covers outstanding receivables, unbilled balances, and provides a status related to billing and collection efforts.

### **Recommendation**

Receive and file.

### **Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair, investing in the development of our employees and maintaining fiscal sustainability.

### **Background**

The Authority's primary funding sources include passenger fares, revenues from dispatching and maintenance-of-way, operating and capital funding support from Member Agencies, and Federal, State, and local funding grants.

## **Discussion**

### **Accounts Receivable (A/R) Balances**

As of June 30, 2026, the total outstanding accounts receivables balance, as detailed in Attachment A, was \$25.8 million, of which \$22.6 million was current and \$3.2 million was past due. The \$3.2 million past due compares to \$3.3 million for the previous quarter.

### **Unbilled Balances/Pending Capital Billing**

On June 30, 2026, total expenses paid out by the Authority and subject to grantor reimbursement related to the Capital Program (unbilled balances) were estimated at \$16.8 million, with virtually no change from the prior quarter. Unbilled balances continue to hover near historic lows. The level of unbilled balances is informed by the:

1. Volume and timing of Capital Program expenses;
2. Existence of supporting documentation to bill grantors;
3. Completion of all grant requirements; and
4. Staff resources.

Only 2.8% of unbilled balances are aged over 360 days, and these relate to a Capital Program project which is pending resolution of funding eligibility issues raised by the Federal Highway Administration.

### **San Clemente Unbilled Balances**

San Clemente operating projects are tracked in a different manner versus core state of good repair and capital projects and are therefore presented separately. Total unbilled balances for the five San Clemente projects were \$596K as of June 30, 2026. Approximately 98% of cumulative expenses paid out on all San Clemente projects since inception have either been billed or advance funded. Finance staff meet monthly to prioritize and address the San Clemente portfolio of projects to ensure appropriate issue resolution and billing timeframes.

## **Next Steps**

The Accounts Receivable report for the quarter ended September 30, 2026, will be presented in November 2026.

Prepared by: Vivien Avella, Assistant Director of Finance  
Nancy Perez, Assistant Director of Finance  
Edison Abrenica, Senior Finance Analyst

Approved by: Tom Schamber, Chief Financial Officer

## **Attachment(s)**

[Attachment A - FY26 Q4 Accounts Receivable Status Report](#)  
[Presentation - FY26 Q4 Preliminary Accounts Receivable Report](#)

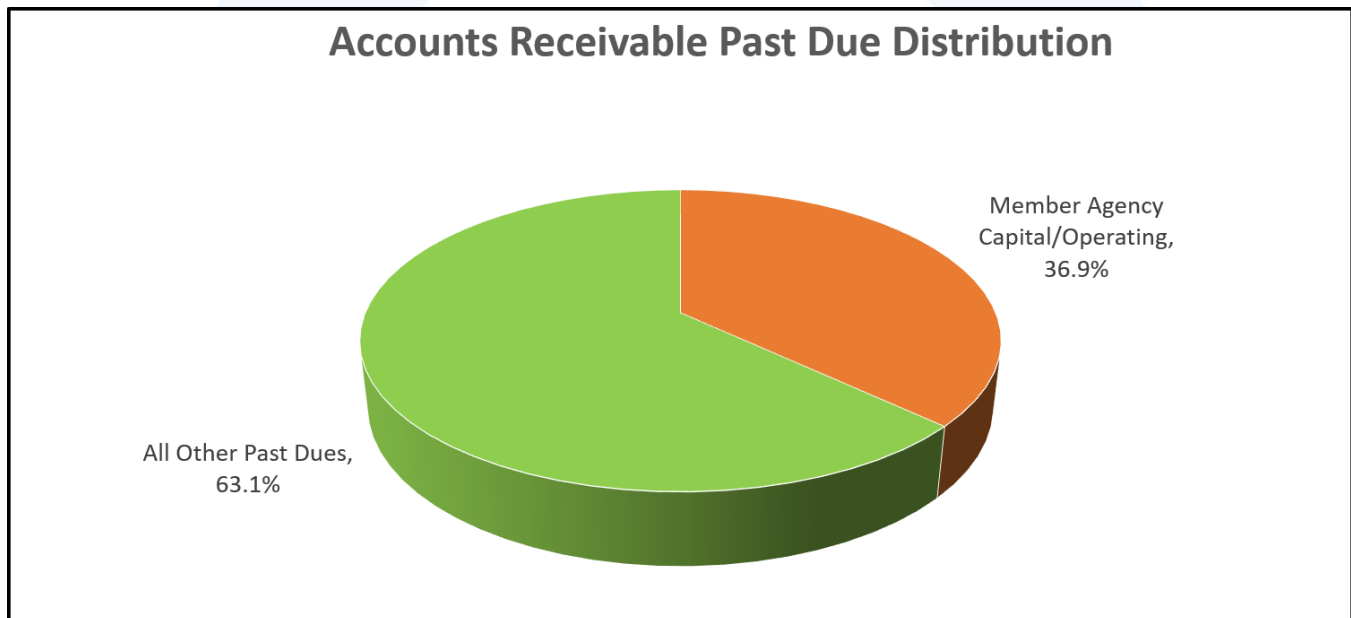


## FY2025-26 Quarterly Accounts Receivable Status Report – Quarter Ended June 30, 2026

### Billed Accounts Receivable

The charts and tables below provide summary breakdowns of A/R balances by category and aging status for the quarter ending June 30, 2026. All amounts are preliminary and subject to FYE adjustments/close entries. The tables and charts contained herein do not reflect billing and collections activity experienced after June 30.

The following chart provides information on delinquent accounts by customer category. Member Agency past due A/R balances comprise 36.9% of total past dues. The “All Other” customer category includes all customers other than Member Agencies, and can therefore include other grant funding sources, including federal, state and local agencies, as well as private third-party customers.



The following table provides a detailed breakdown of A/R balances by customer category and aging status at quarter end.



| Detailed A/R Aging Report By Category<br>(\$ in millions) |                 |                 |                |                |                |                |                |                |
|-----------------------------------------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                                           | Total           | Current         | Past Due       |                |                |                |                | Total Past Due |
|                                                           |                 |                 | 1-30 Days      | 31-60 Days     | 61-90 Days     | 91-180 Days    | Over 180 Days  |                |
| <b>Member Agency Capital/Other Operating</b>              |                 |                 |                |                |                |                |                |                |
| L.A. County Metro (LACMTA)                                | \$ 7.44         | \$ 7.19         | \$ -           | \$ -           | \$ -           | \$ 0.24        | \$ -           | \$ 0.24        |
| Orange County Transportation Authority (OCTA)             | 1.65            | 1.35            | -              | -              | -              | -              | 0.30           | 0.30           |
| Ventura County Transportation Comm (VCTC)                 | 0.15            | 0.15            | -              | -              | -              | -              | -              | -              |
| San Bernardino County Trans Authority (SBCTA)             | 1.80            | 1.17            | 0.63           | -              | -              | -              | -              | 0.63           |
| Riverside County Transportation Comm (RCTC)               | 0.64            | 0.64            | -              | -              | -              | -              | -              | -              |
| Subtotal                                                  | 11.68           | 10.51           | 0.63           | -              | -              | 0.24           | 0.30           | 1.17           |
| <b>All Other</b>                                          | 14.12           | 12.12           | 1.19           | 0.32           | 0.45           | 0.31           | (0.26)         | 2.00           |
| <b>Total</b>                                              | <b>\$ 25.81</b> | <b>\$ 22.63</b> | <b>\$ 1.82</b> | <b>\$ 0.32</b> | <b>\$ 0.45</b> | <b>\$ 0.56</b> | <b>\$ 0.03</b> | <b>\$ 3.17</b> |
| <b>%</b>                                                  | <b>100.0%</b>   | <b>87.7%</b>    | <b>7.0%</b>    | <b>1.2%</b>    | <b>1.7%</b>    | <b>2.2%</b>    | <b>0.1%</b>    | <b>12.3%</b>   |

### Unbilled Expenses

The following is a table of paid Capital Program expenses awaiting billing to grantors, broken out by individual vendors with balances over \$500,000.

| CAPITAL PROGRAM UNBILLED AGING, VENDORS WITH BALANCES OVER \$500K |                     |                     |                     |                     |                     |                   |                     |
|-------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|
| Vendor Name                                                       | 1-30                | 31-60               | 61-90               | 91-180              | 181-360             | 360 +             | Grand Total         |
| TALGO SYSTRA JOINT VENTURE                                        | -                   | \$ 1,395,413        | -                   | \$ 123,509          | \$ 375,093          | \$ -              | \$1,894,015         |
| HERZOG CONTRACTING CORPORATION                                    | 279,847             | 682,464             | 239,718             | 163,000             | 183,507             | 1,862             | 1,550,398           |
| RAIL PROS, INC.                                                   | 247,530             | 459,502             | 105,920             | 78,253              | 129,237             | (2,242)           | 1,018,201           |
| BALFOUR BEATTY INFRASTRUCTURE, INC                                | -                   | 778,226             | 195,722             | -                   | 118                 | 31,701            | 1,005,768           |
| FLATIRON DRAGADOS CONSTRUCTORS, INC d.t                           | 1,005,043           | -                   | -                   | -                   | -                   | -                 | 1,005,043           |
| AECOM TECHNICAL SERVICES, INC.                                    | 350,825             | 202,130             | 257,911             | 72,350              | 35,773              | -                 | 918,989             |
| KIMLEY-HORN & ASSOCIATES, INC                                     | -                   | 63,839              | 152,161             | -                   | 20,393              | 516,150           | 752,543             |
| METEORCOMM LLC                                                    | -                   | 40,826              | -                   | 475,214             | -                   | -                 | 516,040             |
| HILL INTERNATIONAL, INC.                                          | 247,689             | 105,092             | 120,144             | 29,409              | 8,504               | -                 | 510,837             |
| All Other Vendors                                                 | 3,344,095           | 1,172,530           | 1,635,418           | 698,687             | 809,430             | (70,208)          | 7,589,952           |
| <b>Grand Total</b>                                                | <b>\$ 5,475,029</b> | <b>\$ 4,900,021</b> | <b>\$ 2,706,994</b> | <b>\$ 1,640,422</b> | <b>\$ 1,562,057</b> | <b>\$ 477,263</b> | <b>\$16,761,785</b> |

Historically, unbilled balances on reimbursable operating projects have not been significant or reported. Shown below are unbilled balances related to the five San Clemente operating projects. San Clemente projects are 98% billed or advance funded at quarter end.

| PROJECT            | PROJECT NAME                        | TOTAL PAID EXPENSES | TOTAL BILLED        | TOTAL UN-BILLED PAID EXPENSES | % BILLED      |
|--------------------|-------------------------------------|---------------------|---------------------|-------------------------------|---------------|
| 205305             | SAN CLEMENTE-CYPRESS SHORES         | \$8,093,305         | \$8,070,150         | \$23,154                      | 99.71%        |
| 205306             | SAN CLEMENTE-CASA ROMANTICA         | 3,111,259           | 3,078,298           | 32,961                        | 98.94%        |
| 205307             | SAN CLEMENTE-MARIPOSA               | 5,828,218           | 5,684,710           | 143,509                       | 97.54%        |
| 205308             | SAN CLEMENTE-COASTAL STABILIZATION* | 6,186,049           | 6,186,049           | -                             | 100.00%       |
| 205309             | SAN CLEMENTE-THREE AREAS            | 9,352,364           | 8,956,001           | 396,363                       | 95.76%        |
| <b>Grand Total</b> |                                     | <b>\$32,571,196</b> | <b>\$31,975,208</b> | <b>\$595,987</b>              | <b>98.17%</b> |

\*Billed amounts have been drawn down from on-hand funds per MOU. On-hand funds will be replenished subsequent to grant execution, billing, and collection.





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## **FY2025-26 Preliminary Accounts Receivables Report Quarter Ended June 30, 2026**

*Receive and file.*





# Accounts Receivables as of June 30, 2026

Total Billed Receivables = \$25.80 M (\$ in millions)

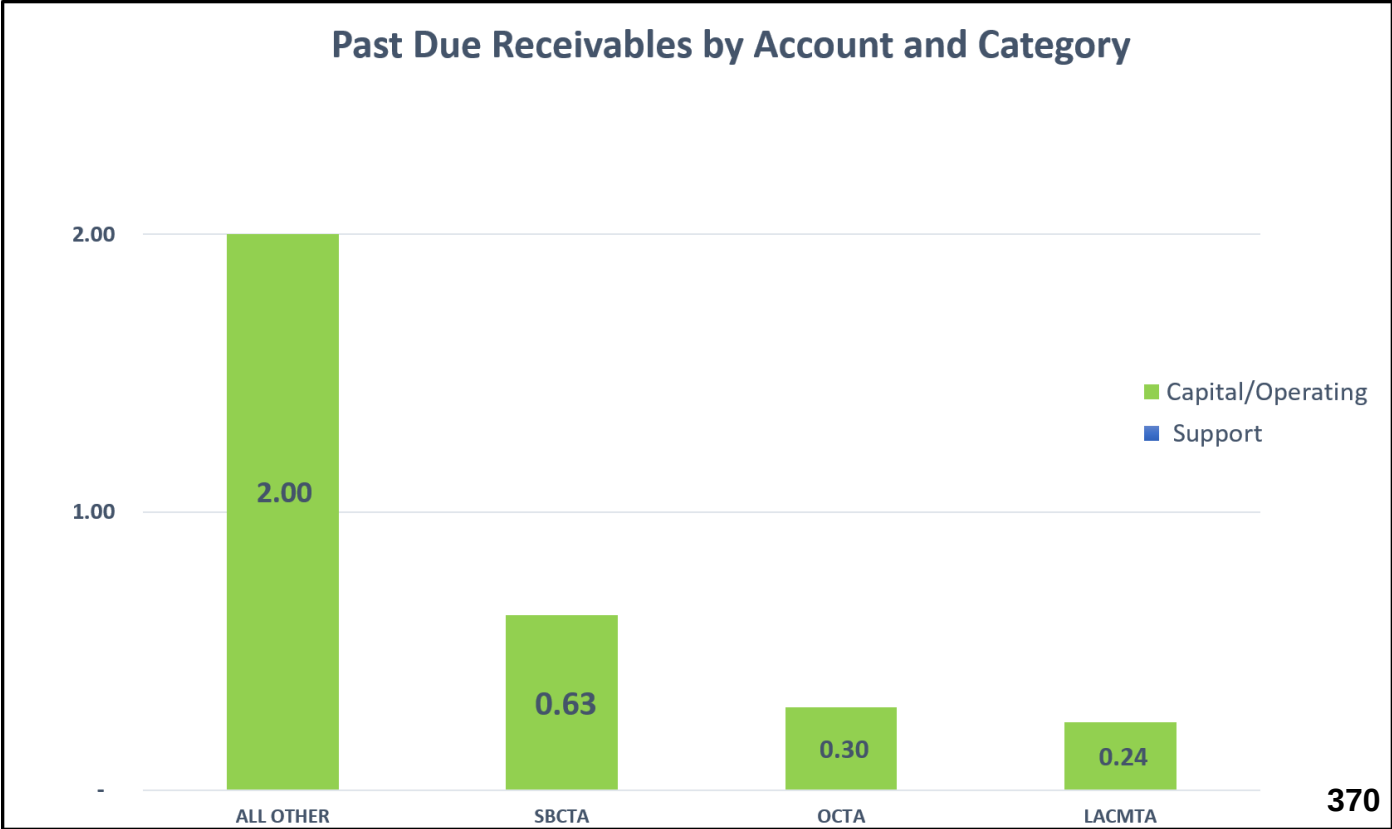
| Receivables Category              | Current      | Total Past Due | Total        |
|-----------------------------------|--------------|----------------|--------------|
| Member Agency*                    | \$10.51      | \$1.17         | \$11.68      |
| Other                             | <u>12.12</u> | <u>2.00</u>    | <u>14.12</u> |
| Totals as of June 30, 2026        | 22.63        | 3.17           | 25.80        |
| <u>Prior Quarter Comparison</u>   |              |                |              |
| Total as of March 31, 2026        | <u>15.21</u> | <u>3.26</u>    | <u>18.47</u> |
| Increase/(Decrease) Q426 vs. Q326 | \$7.42       | \$(.09)        | \$7.33       |

*\*Breakdown of Member Agency past dues is shown on the following page.*



# Accounts Receivables Past Due Graph

Total Past Due Receivables = \$3.17M (\$ in millions)



# Unbilled Balances as of June 30, 2026

**Unbilled Capital Expenses Paid = \$16.8 million**

| CAPITAL PROGRAM UNBILLEDDS AGING, VENDORS WITH BALANCES OVER \$500K |                     |                     |                     |                     |                     |                   |                     |
|---------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|
| Vendor Name                                                         | 1-30                | 31-60               | 61-90               | 91-180              | 181-360             | 360 +             | Grand Total         |
| TALGO SYSTRA JOINT VENTURE                                          | -                   | \$ 1,395,413        | -                   | \$ 123,509          | \$ 375,093          | \$ -              | \$1,894,015         |
| HERZOG CONTRACTING CORPORATION                                      | 279,847             | 682,464             | 239,718             | 163,000             | 183,507             | 1,862             | 1,550,398           |
| RAIL PROS, INC.                                                     | 247,530             | 459,502             | 105,920             | 78,253              | 129,237             | (2,242)           | 1,018,201           |
| BALFOUR BEATTY INFRASTRUCTURE, INC                                  | -                   | 778,226             | 195,722             | -                   | 118                 | 31,701            | 1,005,768           |
| FLATIRON DRAGADOS CONSTRUCTORS, INC d.b.a.                          | 1,005,043           | -                   | -                   | -                   | -                   | -                 | 1,005,043           |
| AECOM TECHNICAL SERVICES, INC.                                      | 350,825             | 202,130             | 257,911             | 72,350              | 35,773              | -                 | 918,989             |
| KIMLEY-HORN & ASSOCIATES, INC                                       | -                   | 63,839              | 152,161             | -                   | 20,393              | 516,150           | 752,543             |
| METEORCOMM LLC                                                      | -                   | 40,826              | -                   | 475,214             | -                   | -                 | 516,040             |
| HILL INTERNATIONAL, INC.                                            | 247,689             | 105,092             | 120,144             | 29,409              | 8,504               | -                 | 510,837             |
| All Other Vendors                                                   | 3,344,095           | 1,172,530           | 1,635,418           | 698,687             | 809,430             | (70,208)          | 7,589,952           |
| <b>Grand Total</b>                                                  | <b>\$ 5,475,029</b> | <b>\$ 4,900,021</b> | <b>\$ 2,706,994</b> | <b>\$ 1,640,422</b> | <b>\$ 1,562,057</b> | <b>\$ 477,263</b> | <b>\$16,761,785</b> |

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# Unbilled Balances as of June 30, 2026

**Unbilled San Clemente Expenses Paid = \$596K**

| PROJECT            | PROJECT NAME                        | TOTAL PAID EXPENSES | TOTAL BILLED        | TOTAL UN-BILLED PAID EXPENSES | % BILLED      |
|--------------------|-------------------------------------|---------------------|---------------------|-------------------------------|---------------|
| 205305             | SAN CLEMENTE-CYPRESS SHORES         | \$8,093,305         | \$8,070,150         | \$23,154                      | 99.71%        |
| 205306             | SAN CLEMENTE-CASA ROMANTICA         | 3,111,259           | 3,078,298           | 32,961                        | 98.94%        |
| 205307             | SAN CLEMENTE-MARIPOSA               | 5,828,218           | 5,684,710           | 143,509                       | 97.54%        |
| 205308             | SAN CLEMENTE-COASTAL STABILIZATION* | 6,186,049           | 6,186,049           | -                             | 100.00%       |
| 205309             | SAN CLEMENTE-THREE AREAS            | 9,352,364           | 8,956,001           | 396,363                       | 95.76%        |
| <b>Grand Total</b> |                                     | <b>\$32,571,196</b> | <b>\$31,975,208</b> | <b>\$595,987</b>              | <b>98.17%</b> |

*\*Billed amounts have been drawn down from on-hand funds per MOU. On-hand funds will be replenished subsequent to grant execution, billing, and collection.*

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Thank you.

**373**





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**ITEM ID:** 2026-276-0

**TRANSMITTAL DATE:** September 18, 2025

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Elisabeth Lazuardi, Director, Audit

**SUBJECT:** Fiscal Year 2026 Annual Audit Activities Review

**Issue**

The Internal Audit Department (Internal Audit) is providing the Fiscal Year (FY) 2026 annual report to the Board as required by the Internal Audit Charter.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. Through the audits performed in FY 2026, process improvements were made in various areas.

**Background**

Internal Audit provides independent and objective assurance to the Authority. In conducting its day-to-day operations, Internal Audit is governed by the Board approved Internal Audit Charter and Internal Audit Policies. Internal Audit also follows the auditing standards:

- Government Auditing Standards (GAGAS) established by the U.S. Government Accountability Office; and
- The Institute of Internal Auditors' (IIA) Global Internal Audit Standards (GIAS).

## **Discussion**

### **Reporting Organizational Independence**

Auditing standards require auditors and audit organizations to maintain independence of mind and independence in appearance when performing audit services (GAGAS paragraphs 3.18 and 3.21). The Internal Audit function is organizationally independent, reporting functionally to the Board and administratively to the Chief Executive Officer. Staff is confirming the Internal Audit function's organizational independence for Fiscal Year 2026 in accordance with GIAS Standard 7.1.

### **Fiscal Year 2026 Annual Internal Audit Plan and Audit Activities Summary**

1. External Audits – Served as audit liaison by coordinating and monitoring external audits, including those conducted by independent financial statement auditors and state and federal officials. Please refer to the Corrective Action Status Update - Fourth Quarter Ended June 30, 2026 report for the status of audit findings.
  - FY 2025 Annual Financial Report Audit and Single Audit.
  - FY 2026 Agreed Upon Procedures – Annual National Transit Database (NTD)
  - FY 2025 Member Agency Memorandum of Understanding (MOU) Audit with Los Angeles Metropolitan Transportation Authority (LACMTA).
  - The Federal Transit Administration (FTA) Triennial Review preparation
2. Internal Audits and Contract Cost Analysis - Conducted internal audits and contract cost analysis in accordance with the Board-approved Fiscal 2026 Annual Audit Plan. See Attachment A.
3. CEO Special Requests:
  - Assisted the Safety, Security, and Compliance Department in completing the System Safety Program internal safety audits as required by 49 CFR Part 270. IA assisted in performing the internal safety audits for these elements: Security Assessment and Safety Assurance.
4. Monitoring Corrective Action – Monthly follow-up on implementation of audit recommendations (internal and external audits) until the recommendations have been satisfactorily addressed. Activities included:
  - Review of support provided by management to close out corrective actions.
  - Meetings with management regarding pending items and deadlines; and
  - Quarterly updates to the Board of Directors on the status of corrective actions. Please refer to the Corrective Action Status Update - Fourth Quarter Ended June 30, 2026 report for the status of audit findings.
5. Internal Audit Department Projects - Conducted an agency-wide risk assessment, developed the FY 2027 Annual Audit Plan, updated Internal Audit Charter, Policies and Procedures, and Procedures Handbook to conform with the revised auditing standards, peer review preparation, and performed the annual internal quality assessment.
6. External Quality Assessment (Peer Review) - The Peer Review for the period of January 2023 through December 2025 was conducted on the week of February 9, 2026, there were no findings.
7. Internal Audit Administration – Activities included
  - participation and preparation for board and staff meetings
  - on-going On-Call Audit Services contract management
  - annual departmental budget preparation and ongoing budget monitoring
  - participation in panels and committees assisting other departments procurements,

- agencywide events, and employee recruitments
- attended trainings as part of the Continuing Professional Education required by the auditing standards.

### Internal Audit Productivity Fiscal Year 2026

Internal Audit has four full time auditor positions. The organizational structure is as follows: one (1) Director, two (2) Senior Auditors, and one (1) Auditor II. Table 1 shows the analysis of the total annual available and productive work hours, and Table 2 shows the allocation of the annual productive work hours for Internal Audit.

**Table 1: Total Annual Available and Productive Work Hours**

| Item                                       | Calculation for Projected Hours (4 FTEs) | Projected Hours FY 2026 | Actual Hours FY 2026 |
|--------------------------------------------|------------------------------------------|-------------------------|----------------------|
| Total Annual Available                     | 2,080 Hours (per FTE) X 4 FTEs           | 8,320                   | 8,352                |
| Less: Vacation and Other Leaves of Absence | 30 days (240 hours per FTE) x 4 FTEs     | (960)                   | (998)                |
| Less: Holidays                             | 12 days (96 hours per FTE) x 4 FTEs      | (384)                   | (384)                |
| <b>Total Annual Productive Work Hours</b>  |                                          | <b>6,976</b>            | <b>6,970</b>         |

**Table 2: Allocation of the Annual Productive Work Hours**

| Audit Activity                                    | <i><b>Projected<br/>Productive<br/>Work Hours<br/>FY2026</b></i> | <b>%</b>    | <i><b>Actual<br/>Productive<br/>Work Hours<br/>FY 2026</b></i> | <b>%</b>    |
|---------------------------------------------------|------------------------------------------------------------------|-------------|----------------------------------------------------------------|-------------|
| (1) External Audits                               | 90                                                               | 1%          | 217                                                            | 3%          |
| (2) Internal Audits and Cost Analysis             | 2,690                                                            | 39%         | 2,663                                                          | 38%         |
| (3) Special Requests                              | 300                                                              | 4%          | 124                                                            | 2%          |
| (4) Monitoring (Corrective Action Tracking)       | 300                                                              | 4%          | 145                                                            | 2%          |
| (5) Internal Audit Department Projects            | 900                                                              | 13%         | 1,311                                                          | 19%         |
| (6) External Quality Control Review (Peer Review) | 296                                                              | 4%          | 117                                                            | 2%          |
| (7) Internal Audit Administration                 | 2,400                                                            | 35%         | 2,393                                                          | 34%         |
| <b>Total Annual Productive Work Hours</b>         | <b>6,976</b>                                                     | <b>100%</b> | <b>6,970</b>                                                   | <b>100%</b> |

### Next Steps

Internal Audit will report on the Board approved FY27 Audit Plan status on a quarterly basis.

Prepared by: Claudia Casasola, Auditor II

Approved by: Elisabeth Lazuardi, Director, Audit

**Attachment(s)**

Attachment A - IA Status Update  
Presentation - FY2026 Annual Audit Activities Review

**SCRRA INTERNAL AUDIT DEPARTMENT**  
**FY 2026 Q4 Audit Plan Update**

**ATTACHMENT A**

| Ref #                                                | Audit Activity                                       | Preliminary Objective                                                                                                                                                        | Auditable Unit                                    | (A)<br>Planned Staff<br>Hours | (B)<br>Staff Hours<br>FY2026 YTD | (C)=(A)-(B)<br>Under (Over) | Status                                                                                                            |
|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------|----------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>FY 2026 NEW AUDITS</b>                            |                                                      |                                                                                                                                                                              |                                                   |                               |                                  |                             |                                                                                                                   |
| 1                                                    | FY 2026 Fuel Purchase Program (Annual Audit)         | Evaluate compliance to the Board approved Fuel Purchase Policy FIN-11.1 and identify best practices recommendations to the policy.<br>*Outsourced                            | Finance, Fuel Management                          | 50                            | 37                               | 13                          | In Progress - Reporting<br>Target Completion Date:<br>July 2026                                                   |
| 2                                                    | SCORE - Grant Compliance                             | Evaluate the effectiveness of controls over the allocation of costs based on the a consisten methodology and in accordance with applicable grant requirements<br>*Co-sourced | SCORE, PMO, Grants, Business Ops                  | 400                           | 257                              | 143                         | In progress - Fieldwork<br>Target Completion Date:<br><del>July 2026</del><br>October 2026                        |
| 3                                                    | Non revenue fleet management                         | Evaluate compliance to the applicable policy/ procedures and adequacy of oversight                                                                                           | Facilities and Fleet Maintenance                  | 300                           | 173                              | 127                         | In progress - Fieldwork<br>Target Completion Date:<br><del>June 2026</del><br>October 2026                        |
| 4                                                    | Materials Management - inventory obsolesence         | Evaluate processes to identify, monitor, and manage obsolete, excess, or inactive inventory in a timely manner                                                               | Materials Management, Finance                     | 500                           | 364                              | 136                         | Completed - Corrective<br>action tracking                                                                         |
| 5                                                    | Travel & business expense reimbursement              | Evaluate compliance to the policy & procedures and identify policy gap                                                                                                       | Finance and Human Resources                       | 500                           | 674                              | -174                        | In progress - Reporting<br>Target Completion Date:<br><del>April 2026</del><br><del>May 2026</del><br>August 2026 |
| <b>CARRIED FORWARD AUDITS FROM FY 2025</b>           |                                                      |                                                                                                                                                                              |                                                   |                               |                                  |                             |                                                                                                                   |
| 6                                                    | FY2025 Fuel Purchase Program (Annual Audit)          | Evaluate compliance to the Board approved Fuel Purchase Policy FIN-11.1 and identify best practices recommendations to the policy.<br>*Outsourced                            | Finance, Fuel Management                          | 50                            | 41                               | 9                           | Completed                                                                                                         |
| 7                                                    | Contract Expiration Performance Audit                | Evaluate whether contracts are administered effectively to prevent contract overruns and ordering from expired contracts.<br>*Co-sourced                                     | Contracts Administration                          | 300                           | 381                              | -81                         | Completed - Corrective<br>action tracking                                                                         |
| 8                                                    | Contract OP151-21 Amtrak Management Audit            | Evaluate efficiency and effectiveness of contract management process for Contract OP151-21.<br>*Co-sourced                                                                   | Operations, Contracts Administration              | 40                            | 0                                | 40                          | Completed (in FY 2025)-<br>Corrective action tracking                                                             |
| 9                                                    | Third-party agreements (TPA) projects administration | Evaluate the adequacy and effectiveness of Third-Party projects oversight                                                                                                    | Program Delivery, Finance                         | 300                           | 708                              | -408                        | Completed - Corrective<br>action tracking                                                                         |
| <b>ONGOING ENGAGEMENTS</b>                           |                                                      |                                                                                                                                                                              |                                                   |                               |                                  |                             |                                                                                                                   |
| 10                                                   | Pre-award & Incurred Cost Analysis                   | Contract cost analysis requested by CPMM related to proposed costs, incurred costs, contract closeouts, or other matters as needed.<br>*Outsourced                           | Various cost proposals & contracts incurred costs | 250                           | 28                               | 222                         | On Going                                                                                                          |
| <b>Total Hours (Internal Audits + Cost Analysis)</b> |                                                      |                                                                                                                                                                              |                                                   | <b>2690</b>                   | <b>2663</b>                      | <b>27</b>                   |                                                                                                                   |





**METROLINK**

## Fiscal Year 2026 Annual Activities Review

Receive and fill **379**

# Items Discussed

- Reporting Organizational Independence
  - Auditing Standards require that internal auditors be independent in fact and appearance with respect to the entities for which they perform audit services. The Internal Audit function is organizationally independent, reporting functionally to the Board, and administratively to the Chief Executive Officer. **Staff is confirming our independence for Fiscal Year 2026.**
- FY2026 Annual Internal Audit Plan and Audit Activities Summary
  - Summary descriptions and tables details are available in the Board Report.





**METROLINK**

Thank you.



[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

ITEM ID: 2026-275-0

TRANSMITTAL DATE: September 18, 2026

MEETING DATE: September 25, 2026

TO: Board of Directors

FROM: Elisabeth Lazuardi, Director, Audit

SUBJECT: Corrective Action Status Update - Fourth Quarter Ended June 30, 2026

**Issue**

The Internal Audit Department (Internal Audit) provides the Board with a quarterly report on the status of the corrective actions of prior audits.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics, and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. By monitoring the status of corrective actions, we are providing transparency as to the status of business process improvements agency wide.

**Background**

At the July 28, 2017, Board meeting the Board directed Internal Audit to provide quarterly updates on corrective actions on internal and external audits.

## Discussion

For the quarter ending June 30, 2026, three items were implemented and verified, two items implemented pending verification, no items past due, and 21 items not yet due.

The reporting of the corrective actions contains two attachments. Attachments A and B reflect all internal and external audits completed through June 30, 2026. The status of the corrective actions for these audits has been updated through the transmittal date of this report.

Attachment A: Corrective Action Outstanding Items. The attachment includes items that were not yet due, were past due, or were pending implementation as of June 30, 2026. Corrective actions related to external audit findings will remain on Attachment A until the external auditors clear those findings.

Attachment B: Corrective Action Closed Items. The attachment includes items that were implemented and verified or closed.

Table 1 below summarizes the activities from Attachments A and B up through the Fourth Quarter of FY 2026.

**Table 1: Summary of Corrective Actions Activities**

| Audit Reports Issued for Q4 FY 2026                | Report Date | Implemented | Implemented - Pending Verification | Past Due | Not Yet Due |
|----------------------------------------------------|-------------|-------------|------------------------------------|----------|-------------|
| 2026-04-IA - Inventory Obsolescence                | 05/29/2026  |             |                                    |          | 3           |
| <b>Audit Reports Issued before Q4 FY 2026</b>      |             |             |                                    |          |             |
| 2025-06-IA TPA Project Administration              | 2/9/2026    |             |                                    |          | 6           |
| 2025-04-IA Contract Expiration Performance Audit   | 11/20/2025  | 3           |                                    |          | 1           |
| 2024-06-IA Contract OP151-21-NRPC (Amtrak)         | 6/3/2025    |             |                                    |          | 3           |
| 2024-14-IA PMO Baseline PM Schedule Audit          | 1/13/2025   |             |                                    |          | 1           |
| 2023-05-IA HR Recruitment & Selection Process      | 6/22/2023   |             |                                    |          | 2           |
| 2022-04-IA External DBELO and Labor Compliance     | 1/17/2023   |             | 1                                  |          | 1           |
| 2021-12-CA Bench Contract Vendor Selection Process | 1/4/2022    |             | 1                                  |          |             |



|                                        |           |          |          |  |           |
|----------------------------------------|-----------|----------|----------|--|-----------|
| 2026-01-EA ACFR & Single Audit FY 2025 | 12/8/2025 |          |          |  | 2         |
| 2026-10-EA LACMTA MOU FY 2025          | 2/28/2026 |          |          |  | 1         |
| 2025-10-EA LACMTA MOU FY 2024          | 2/28/2025 |          |          |  | 1         |
| <b>Total Q4 FY 2026</b>                |           | <b>3</b> | <b>2</b> |  | <b>21</b> |

Notes:

DBELO & LC = Disadvantaged Business Enterprise Liaison Officer & Labor Compliance

ACFR = Annual Comprehensive Financial Report

### **Next Steps**

Internal Audit will continue reporting on the status of the corrective actions.

Prepared by: Claudia Casasola, Auditor II

Approved by: Elisabeth Lazuardi, Director, Audit

### **Attachment(s)**

[Attachment A - Corrective Action Outstanding Items](#)

[Attachment B - Corrective Action Closed Items](#)

[Presentation - Q4 FY2026 Corrective Action Status Update](#)

# CORRECTIVE ACTION - OUTSTANDING ITEMS (as of 6/30/2026)

ATTACHMENT A

| PROJECT #       | PROJECT NAME                                       | REC # | RECOMMENDATION                                                                                                                                                                                                                                                                                                                                                          | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                                                  | DEPT                 | QTRLY DUE DATE     | STATUS      |
|-----------------|----------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------|-------------|
| INTERNAL AUDITS |                                                    |       |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                         |                      |                    |             |
| 2026-04-IA      | Inventory Obsolescence                             | 1     | Develop and document a comprehensive end-to-end procedure for managing obsolete inventory across its full lifecycle                                                                                                                                                                                                                                                     | A comprehensive inventory obsolescence SOP will be developed and implemented.                                                                                                                                                                                                                           | Materials Management | FY27-Q2            | Not Yet Due |
| 2026-04-IA      | Inventory Obsolescence                             | 2     | Evaluate opportunities to enhance system functionality and processes to better support forecasting and inventory planning                                                                                                                                                                                                                                               | A dedicated forecasting software solution will be identified and implemented subject to budgetary constraints.                                                                                                                                                                                          | Materials Management | FY28-Q2            | Not Yet Due |
| 2026-04-IA      | Inventory Obsolescence                             | 3     | Ensure that procedures developed under Recommendation 1 address the handling of long-inactive inventory and materials stored at field locations. This should include documentation requirements for inventory write-offs, processes for recording materials returned from projects or removed from service, and guidance for tracking and disposing of scrap materials. | A comprehensive inventory obsolescence SOP will be developed and implemented, that includes the elements in this recommendation.                                                                                                                                                                        | Materials Management | FY27-Q2            | Not Yet Due |
|                 |                                                    |       |                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                         |                      |                    |             |
| 2025-06-IA      | Third-Party Agreement (TPA) Project Administration | 1     | The Finance Department management should revise Finance Policy FIN-9.5 and develop detailed SOPs to provide guidance for TPA administration.                                                                                                                                                                                                                            | The Finance Department is currently revising Finance Policy 9.5 and the related SOP. All matters identified in this audit will be addressed.                                                                                                                                                            | Finance              | FY26-Q4<br>FY27-Q1 | Not Yet Due |
| 2025-06-IA      | Third-Party Agreement (TPA) Project Administration | 2     | The Program Delivery Department management should establish TPA specific SOPs covering the full project lifecycle, including agreement negotiation, project initiation, coordination with Finance, and project closeout procedures.                                                                                                                                     | Program Delivery will revise the existing PMO SOP PC-1 for Project Initiation to include language addressing the Recommendations, along with modifications required to incorporate PMIS. Reference will be made to existing procedures where applicable.                                                | Program Delivery     | FY26-Q4<br>FY27-Q1 | Not Yet Due |
| 2025-06-IA      | Third-Party Agreement (TPA) Project Administration | 3     | The Finance Department, in collaboration with the Program Delivery Department and Operations Department, should develop and implement formal reporting standards that establish appropriate criteria for TPA project updates to the Board and stakeholders.                                                                                                             | The Finance Department will lead the development and delivery of a quarterly report on TPA activity to the Board, with assistance from Program Delivery and Operations.                                                                                                                                 | Finance              | FY26-Q4<br>FY27-Q1 | Not Yet Due |
| 2025-06-IA      | Third-Party Agreement (TPA) Project Administration | 4     | The Finance Department management should develop a Standard Operating Procedure (SOP) for project code assignment.                                                                                                                                                                                                                                                      | The Finance Department is currently developing a comprehensive SOP for TPA projects that will incorporate guidance on project code assignments. The Finance Department will collaborate with the IDTS Department to develop automated reporting that captures TPA activity quickly and comprehensively. | Finance              | FY27-Q1            | Not Yet Due |

# CORRECTIVE ACTION - OUTSTANDING ITEMS (as of 6/30/2026)

ATTACHMENT A

| PROJECT #  | PROJECT NAME                                                         | REC # | RECOMMENDATION                                                                                                                                                                                                                                                                      | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                                                                                        | DEPT         | QTRLY DUE DATE     | STATUS      |
|------------|----------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------|-------------|
| 2025-06-IA | Third-Party Agreement (TPA) Project Administration                   | 5     | The Finance Department management should implement a system-generated report capturing all TPA projects.                                                                                                                                                                            | The Finance Department is currently developing a comprehensive SOP for TPA projects that will incorporate guidance on project code assignments. The Finance Department will collaborate with the IDTS Department to develop automated reporting that captures TPA activity quickly and comprehensively.                                       | Finance      | FY27-Q1            | Not Yet Due |
| 2025-06-IA | Third-Party Agreement (TPA) Project Administration                   | 6     | The Finance Department management should collaborate with Program Delivery and Operations management to establish a formal TPA project report for all TPA projects agencywide and the formal reconciliation process between data sources.                                           | The Finance Department is currently developing a comprehensive SOP for TPA projects that will incorporate guidance on project code assignments. The Finance Department will collaborate with the IDTS Department to develop automated reporting that captures TPA activity quickly and comprehensively.                                       | Finance      | FY27-Q1            | Not Yet Due |
| 2025-04-IA | Contract Expiration Performance Audit                                | 3     | Build key controls into the new Contract Lifecycle Management (CLM) system, such as automated expiration alerts, ownership reassignment notifications, routing visibility, and escalation of delays.                                                                                | Factor these features in the scope of the new contract management system, considering features such as:<br>o Automated alerts and dashboards (e.g., 180, 150, 120 etc.... day reminders before expiration).<br>o Routing visibility to track amendment progress.<br>o Automatic updates to routing status report to current Project Managers. | CPMM         | FY27-Q4            | Not Yet Due |
| 2024-06-IA | Contract OP151-21 – National Railroad Passenger Corporation (Amtrak) | 1     | Internal Audit recommends that the Contracts and Procurement develop standardized solicitation and contract templates (based on contract type) with agency-approved terms. Any modifications to these templates in executed contracts must be approved by Director, CPMM and Legal. | CPMM to work with Legal to develop new solicitation and contract templates.                                                                                                                                                                                                                                                                   | CPMM         | FY26-Q4<br>FY27-Q2 | Not Yet Due |
| 2024-06-IA | Contract OP151-21 – National Railroad Passenger Corporation (Amtrak) | 2     | Internal Audit recommends that the Contracts and Procurement implement a contract management system to track key dates, send automated alerts, and store contract documents, ensuring compliance and preventing missed deadlines.                                                   | CPMM to collaborate with IDTS to implement a Contract Lifecycle Management (CLM) system. Funding in the FY27 budget is needed.                                                                                                                                                                                                                | CPMM<br>IDTS | FY27-Q4            | Not Yet Due |

**CORRECTIVE ACTION - OUTSTANDING ITEMS (as of 6/30/2026)**

**ATTACHMENT A**

| PROJECT #  | PROJECT NAME                                                         | REC # | RECOMMENDATION                                                                                                                                                                                                                                                                                                                                                               | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                            | DEPT                  | QTRLY DUE DATE                                                                                                                                                                                                | STATUS                                                                                                                                               |
|------------|----------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024-06-IA | Contract OP151-21 – National Railroad Passenger Corporation (Amtrak) | 4     | We recommend that Finance research and evaluate the feasibility of implementing agency-wide training programs on Federal Cost Principles requirements to improve staff understanding, reduce the risk of noncompliance, and help prevent future overpayments. This training should be designed to support staff involved in administering future federally funded contracts. | Finance will examine the feasibility of implementing an agency-wide training program on Federal Cost Principles to improve staff understanding and support compliance with federally funded contracts.<br><br>b. If feasible, Finance will develop and roll out the training.     | Finance               | 4b.<br>FY26-Q4<br>FY27-Q1                                                                                                                                                                                     | Not Yet Due                                                                                                                                          |
| 2024-14-IA | PMO Baseline Performance Audit                                       | 1     | Update the outdated SOPs to reflect current practices, ensure alignment with other departments, in preparation for integration with the new Project Management Information System (PMIS).                                                                                                                                                                                    | 1b. Refine Existing SOPs with the Consultant<br>Work with the consultant to refine and draft updated SOPs, ensuring alignment with PMIS implementation.                                                                                                                           | PMO                   | 1b.<br><del>FY25-Q4</del><br><del>FY26-Q3</del><br>FY27-Q1                                                                                                                                                    | Not Yet Due                                                                                                                                          |
| 2023-05-IA | Performance Audit: HR Recruitment and Selection Process              | 1.1   | Include Pay Transparency Rule statement in the employee handbook and on the career website page.                                                                                                                                                                                                                                                                             | HR to update policies and procedures to reflect the suggestions. HR to work with IT to update the Careers page to include the Pay Transparency Rule statement.                                                                                                                    | Human Resources       | <del>FY24-Q2</del><br><del>FY24-Q3</del><br><del>FY24-Q4</del><br><del>FY25-Q2</del><br><del>FY25-Q4</del><br><del>FY26-Q1</del><br><del>FY26-Q3</del><br><del>FY26-Q4</del><br>FY27-Q1                       | Not Yet Due<br><br>Pay transparency rule statement posted in the Career site.<br>Pay transparency rule statement will be included in the revised P&P |
| 2023-05-IA | Performance Audit: HR Recruitment and Selection Process              | 1.2   | Update the Record Retention Policy as noted.                                                                                                                                                                                                                                                                                                                                 | The Chief Technology Officer is in the process of procuring a vendor to review the Agency's Record Retention rules (in all departments) and has included an annual subscription service so we are always in conformance with any retention changes in law, rules and regulations. | Human Resources, IDTS | <del>FY24-Q2</del><br><del>FY24-Q3</del><br><del>FY24-Q4 (retain a consultant)</del><br><del>FY25-Q4</del><br><del>FY26-Q1</del><br><del>FY26-Q2</del><br><del>FY26-Q3</del><br><del>FY26-Q4</del><br>FY27-Q1 | Not Yet Due<br><br>Record Retention Policy update is completed pending Board approval                                                                |

**CORRECTIVE ACTION - OUTSTANDING ITEMS (as of 6/30/2026)**

**ATTACHMENT A**

| PROJECT #              | PROJECT NAME                                                                                                                                               | REC #    | RECOMMENDATION                                                                                                                                                                                                                                                                                                                                                                                                                          | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                            | DEPT                              | QTRLY DUE DATE                                                                                                                                                        | STATUS                                                                                                                                                           |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2022-04-IA             | Performance Audit: External DBELO (Disadvantaged Business Enterprise Liaison Officer) and Labor Compliance Monitoring Services Invoice Processing Controls | 1        | Management within Finance, Program Delivery, Special Projects, DBELO, and CPMM correct current DBE/LC work order processing defects to assure that work orders are adequately priced, costs are correctly charged, and invoices are paid in a timely fashion.                                                                                                                                                                           | d. Team to identify corrective actions for any identified defects.<br>e. Document (Manual, SOP, etc.), implement, create training module and monitor new DBE/LC process                                                                                                           | DBELO<br>CPMM<br>Program Delivery | d. Implemented<br>pending<br>verification<br>e. FY22-Q4<br>FY23-Q2<br>FY23-Q4<br>FY24-Q1<br>FY24-Q2<br>FY24-Q3<br>FY24-Q4<br>FY25-Q2<br>FY25-Q4<br>FY26-Q4<br>FY27-Q1 | d. Implemented - Pending Verification<br>e. Not Yet Due - A new monitoring system is in place. Labor Compliance monitoring work is currently performed in house. |
| 2021-12-CA             | Contract Audit: Bench Contract – Vendor Selection Process                                                                                                  | 6        | In coordination with the Senior Management, CPMM develop appropriate amounts in which notification will be provided to Senior Management or a secondary approval by Senior Management on large CTOs. The procedures manual should be updated accordingly.                                                                                                                                                                               | CPMM will develop the appropriate amount in which notifications will be provided to Senior Management. Furthermore, CPMM will issue a quarterly report which shows large dollar CTOs that were awarded the during the quarter. The procedures manual will be updated accordingly. | CPMM                              | Implemented<br>pending<br>verification                                                                                                                                | Implemented Pending Verification                                                                                                                                 |
| <b>EXTERNAL AUDITS</b> |                                                                                                                                                            |          |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                   |                                   |                                                                                                                                                                       |                                                                                                                                                                  |
| 2026-01-EA             | FY25 Annual Financial and Single Audit                                                                                                                     | 2025-001 | Financial Statements (Financial Reporting): Because insurance settlement proceeds related to a 2015 incident were received over multiple fiscal years and not recognized in the appropriate accounting periods, the Authority should strengthen internal controls and year-end financial reporting procedures to ensure non-routine and multi-period revenues are properly identified, evaluated, and recorded in accordance with GAAP. | Management will enhance year-end close and review procedures for non-routine and multi-period transactions, including insurance settlements, to ensure revenues are recognized in the appropriate accounting period in accordance with GAAP.                                      | Finance                           | FY27-Q4                                                                                                                                                               | Not Yet Due                                                                                                                                                      |
| 2026-01-EA             | FY25 Annual Financial and Single Audit                                                                                                                     | 2025-002 | Single Audit (Federal Awards): Because certain federally required contract provisions were not included or communicated to a contractor at the time of award for one federally funded contract, the Authority should strengthen procurement policies and procedures to ensure that all required federal contract provisions are consistently included and communicated to contractors prior to contract execution.                      | Management will update procurement procedures and contract templates and implement a pre-award compliance review to ensure all applicable federal contract provisions are included in federally funded contracts before award.                                                    | Finance                           | FY27-Q4                                                                                                                                                               | Not Yet Due                                                                                                                                                      |



## CORRECTIVE ACTION - OUTSTANDING ITEMS (as of 6/30/2026)

ATTACHMENT A

| PROJECT #  | PROJECT NAME                           | REC #    | RECOMMENDATION                                                                                                                                                                                                                         | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DEPT               | QTRLY DUE DATE | STATUS      |
|------------|----------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|-------------|
| 2026-10-EA | EXTERNAL AUDIT: LACMTA MOU FOR FY 2025 | 2025-001 | We recommend that SCRRA implement a policy to strictly monitor the adherence of the responsible parties to the compliance requirements of the Memorandum of Understanding. This is a repeat finding, originally identified in FY 2024. | The Outside 20' project will be restructured in FY26 and will be no longer administered as a cost reimbursed project. This change will be reflected in the FY26 MOU, under which invoicing to LACMTA for project related costs is no longer required. As a result, the conditions that previously led to delayed billing will no longer exist. Under the revised FY26 MOU, SCRRA will be required only to submit quarterly activity reports within 30 days following the end of each quarter. This reporting requirement is not dependent upon the timing of vendor invoice submissions or payments. SCRRA will establish internal controls and streamline processes to ensure that all quarterly reporting is completed in accordance with the required timelines. | Finance            | FY27-Q4        | Not Yet Due |
| 2025-10-EA | EXTERNAL AUDIT: LACMTA MOU FOR FY 2024 | 2024-001 | We recommend that SCRRA implement a policy to strictly monitor the adherence of the responsible parties to the compliance requirements of the Memorandum of Understanding.                                                             | Metrolink will focus on the timely submission of work orders to the vendors, review invoice billing from the vendors timely, and submit to Metrolink Accounts Payable in order to meet all applicable deadlines of the Metro MOU.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Operations/Finance | FY27-Q4        | Not Yet Due |

## CORRECTIVE ACTION - CLOSED ITEMS (as of 6/30/2026)

ATTACHMENT B

| PROJECT #       | PROJECT NAME                          | REC# | RECOMMENDATION                                                                                                                                                                                                | CORRECTIVE ACTION PLAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DEPARTMENT | STATUS                                                                                                                             |
|-----------------|---------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------|
| INTERNAL AUDITS |                                       |      |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                                                                                                                    |
| 2025-04-IA      | Contract Expiration Performance Audit | 1    | Revise SOP CP-02 to require all amendments to be fully executed before contract expiration.                                                                                                                   | Revise SOP CP-02 to clearly state that all amendments must be signed by all parties before contract expiration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CPMM       | Implemented - Verified. Internal audit reviewed updated SOP language and CEO approval                                              |
| 2025-04-IA      | Contract Expiration Performance Audit | 4    | Strengthen monitoring and reporting by:<br><br>b. Assigning clear ownership of the report distribution list.<br>c. Removing inactive or completed contracts from the expired tab to improve report usability. | b. Establish clear ownership and oversight of the report distribution list so that it remains current and accurate. CPMM will be responsible for updating the Contract Administrator column and working with IDTS to keep the report distribution list current. The CA will update PMs in the Oracle system as they receive items to process.<br>c. Close completed contracts and remove them from the expired tab to improve usability and focus monitoring efforts on current items. Work with IDTS to close expired POs that do not require the formal close out process initiated by Project Managers. | CPMM       | b. Implemented - Verified to updated procedures.<br>C. Implemented - verified to updated Expired Contracts Report as of 5/18/2026. |
|                 |                                       |      |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |                                                                                                                                    |

## **Corrective Action Status Update**

Q4 FY 2026

*Receive and file.*

# Summary of Corrective Actions

| Audit Reports Issued for Q4 FY 2026                | Report Date | Implemented | Implemented - Pending Verification | Past Due | Not Yet Due |
|----------------------------------------------------|-------------|-------------|------------------------------------|----------|-------------|
| 2026-04-IA - Inventory Obsolescence                | 05/29/2026  |             |                                    |          | 3           |
| <b>Audit Reports Issued before Q4 FY 2026</b>      |             |             |                                    |          |             |
| 2025-06-IA TPA Project Administration              | 2/9/2026    |             |                                    |          | 6           |
| 2025-04-IA Contract Expiration Performance Audit   | 11/20/2025  | 3           |                                    |          | 1           |
| 2024-06-IA Contract OP151-21-NRPC (Amtrak)         | 6/3/2025    |             |                                    |          | 3           |
| 2024-14-IA PMO Baseline PM Schedule Audit          | 1/13/2025   |             |                                    |          | 1           |
| 2023-05-IA HR Recruitment & Selection Process      | 6/22/2023   |             |                                    |          | 2           |
| 2022-04-IA External DBELO and Labor Compliance     | 1/17/2023   |             | 1                                  |          | 1           |
| 2021-12-CA Bench Contract Vendor Selection Process | 1/4/2022    |             | 1                                  |          |             |
| 2026-01-EAACFR & Single Audit FY 2025              | 12/8/2025   |             |                                    |          | 2           |
| 2026-10-EA LACMTA MOU FY 2025                      | 2/28/2026   |             |                                    |          | 1           |
| 2025-10-EA LACMTA MOU FY 2024                      | 2/28/2025   |             |                                    |          | 1           |
| <b>Total Q4 FY 2026</b>                            |             | <b>3</b>    | <b>2</b>                           |          | <b>21</b>   |





**METROLINK**

**Thank you.**

For questions contact us at:

[LazuardiE@scrra.net](mailto:LazuardiE@scrra.net)





**ITEM ID:** 2026-297-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Elisabeth Lazuardi, Director, Audit

**SUBJECT:** Performance Audit: Fuel Purchase Policy FIN 11.1 Rev. 3

**Issue**

Internal Audit completed the annual performance audit of the Fuel Purchase Program as required by Fuel Purchase Policy FIN-11.1.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. Controls related to the fuel purchase program are improved through the annual audit of the program.

**Background**

As required by the Fuel Purchase Policy FIN-11.1, "the Fuel Purchase Program shall be audited annually. In addition, the Board shall establish an Ad Hoc Committee at the time of the annual audit for the limited purpose of reviewing audit results and reporting to the Board of Directors". Internal Audit engaged Crowe LLP to perform the audit.

Crowe LLP is a public accounting, consulting, and technology firm that has been in operation since 1942 with offices and resources worldwide. The Crowe team is led by partners and directors who not only have performance audit and derivative experience but also possess the institutional knowledge to help identify the relevant policy considerations for the Authority's fuel hedging program. Crowe has worked with fuel contracts, hedging contracts, and power purchase contracts for entities such as the City of Long Beach, the Chicago Transit Authority, the Indiana Bond Bank, and the State of Texas.

Crowe combined its significant experience in conducting high-quality performance audits for government agencies, in conformance with Generally Accepted Government Auditing Standards (GAGAS), and the demonstrated oil and gas expertise of Willis Graves & Associates, Inc. (WGA) to meet the needs of the Authority with respect to this performance audit. WGA's professionals have extensive industry experience with commodity pricing and in the design and completion of revenue audits in the oil and gas industry.

### **Discussion**

The Board approved Finance Policy FIN-11.1, Fuel Management and Hedging, in January 2015 to establish guidance for the Authority's Fuel Management and Hedging Program. Blue Lacy currently serves as the Authority's fuel hedging advisor and assists with administration of the program.

The Board approved the amendment of the FIN-11.1 to improve the fuel hedge program by the development of four fuel hedge strategies and to rename the policy from "Fuel Management and Hedging Policy" to "Fuel Purchase Policy" in December 2020. Further amendments were subsequently made in May 2022 to revise one of the four fuel hedge strategies and in November 2022 to replace the role of the Fuel Hedge Oversight Consultant with SCRRA staff and to add language related to the effectiveness analysis of the fuel hedge program.

The objective of this audit was to determine compliance with FIN-11.1 Revision 3 for the audit period of January 1, 2025 through December 31, 2025. Based on the audit procedures performed, SCRRA management was determined to comply with all significant aspects of the audit objective. The audit result was presented to the Ad Hoc Committee on August 17, 2026. The audit report is attached to the item.

Prepared by: David Rogers, Senior Internal Auditor

Approved by: Elisabeth Lazuardi, Director of Internal Audit

### **Attachment(s)**

[Attachment A - CY2025 Fuel Hedging Performance Audit Report Presentation - Fuel Hedge Audit](#)



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**Southern California Regional Rail Authority (SCRRRA)  
Performance Audit:  
Fuel Purchase Policy FIN-11.1 Rev. 3**

**July 22, 2026**



## **EXECUTIVE SUMMARY**

Southern California Regional Rail Authority (“SCRRA”) contracted Crowe to perform a Generally Accepted Government Auditing Standards (“GAGAS”) performance audit to evaluate SCRRA’s compliance with the Board-approved Fuel Management and Hedging Policy FIN-11.1 Rev 3 (“Fuel Purchase Policy”) and identify best practice recommendations to the policy.

## **SCOPE AND OBJECTIVE**

The scope of this audit for the period January 1, 2025, through December 31, 2025, included the following objective:

1. Determine whether SCRRA was in compliance with FIN-11.1 revision 3 policies and procedures for January 1, 2025, to December 31, 2025.

There was one audit objective identified to determine SCRRA’s compliance within the scope of this audit. To achieve this objective, Crowe LLP representatives interviewed key SCRRA personnel, reviewed documentation, tested fuel purchases, tested brokerage statements, reviewed reports provided by Blue Lacy LLC, and considered the adequacy of operating effectiveness of internal controls related to the Fuel Management and Hedging Program. The detailed objective, methodology, and conclusion can be found on pages 7 – 8 of this report. The scope can be found on page 9 of this report.

We also have provided a management letter under separate cover that includes best practices for SCRRA management to consider.

## **REVIEW OF REPORT**

Crowe provided the draft report to SCRRA on July 22, 2026, and held a draft review with management.

Those present at the meeting were:

- Darren Kettle, Chief Executive Officer
- Tom Schamber, Chief Financial Officer
- Elisabeth Lazuardi, Internal Audit Director
- David Rodgers, Senior Internal Auditor
- Alexander Barber, Assistant Director, General Accounting
- Bert Nuehring, Crowe Partner
- Jon Ellis, Willis, Graves & Associates, Inc. President
- Sam Twyman, Crowe Senior Manager
- Hugo Vereas, Crowe Senior Auditor

A final report was provided to the Internal Audit Department on July 28, 2026.

Crowe LLP thanks SCRRA Internal Audit, management and staff for their assistance and cooperation during our audit.



## Independent Auditor's Report

To the Southern California Regional Rail Authority,  
Office of the Internal Audit Department

We have conducted a performance audit over the Fuel Purchasing Policy that included assessing compliance with specific requirements of Southern California Regional Rail Authority ("SCRRA") policies and contractual obligations, for the period from January 1, 2025, through December 31, 2025.

We have conducted our performance audit in accordance with Generally Accepted Government Auditing Standards ("GAGAS"). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Our audit was limited to the objective identified on pages 7 – 8 of this report. Management is responsible for SCRRA's compliance with those requirements.

Solely to assist us in planning and performing our performance audit, we obtained an understanding of the internal controls of SCRRA to determine the audit procedures that are appropriate for the purpose of providing a conclusion on SCRRA's compliance with the relevant requirements of SCRRA's policies and contractual obligations, as specified, but not for the purpose of expressing an opinion on the effectiveness of internal control. Accordingly, we do not express any assurance on internal controls.

We did not note findings as a result of our audit. We determined that the Southern Regional Rail Authority met the objective listed on pages 7 - 8 for the period January 1, 2025, through December 31, 2025, in all significant respects.

*Crowe LLP*  
Crowe LLP

Los Angeles, California

July 22, 2026

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## **ABBREVIATIONS**

| <b>Abbreviation</b> | <b>Full Term</b>                                                                                                               |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>Blue Lacy</b>    | Blue Lacy LLC                                                                                                                  |
| <b>CFAR</b>         | Cash Flow at Risk                                                                                                              |
| <b>FIN-11.1</b>     | Fuel Purchasing Policy                                                                                                         |
| <b>GAGAS</b>        | Generally Accepted Government Auditing Standards                                                                               |
| <b>GASB 53</b>      | Governmental Accounting Standards Board (GASB) Statement No. 53, Accounting and Financial Reporting for Derivative Instruments |
| <b>SCRRA</b>        | Southern California Regional Rail Authority                                                                                    |
| <b>SOP</b>          | Standard Operating Procedure                                                                                                   |
| <b>WGA</b>          | Willis, Graves & Associates                                                                                                    |

## **OBJECTIVE, METHODOLOGY, AND CONCLUSIONS**

**Objective 1: Determine whether SCRRRA was in compliance with FIN-11.1 Rev. 3 policies and procedures for January 1, 2025, through December 31, 2025.**

**Methodology:**

1. Crowe obtained and reviewed evidence that an account was established with a Futures Commission Merchant (broker) for trading diesel futures contracts, including monthly broker statements for the audit period.
2. Crowe reviewed the population of futures contract positions and forecasted fuel consumption during the audit period to determine whether the program hedged more than 100% of Metrolink's forecasted consumption in any given month. We compared forecasted consumption to actual consumption to assess reasonableness.
3. Crowe obtained all monthly broker statements during the audit period and reviewed a sample of 20 futures contract purchases from a population of 199 purchases to determine whether the broker statement agreed to the Advisor's reports and the futures contract parameters established in Fuel Purchase Policy Sections 1.1.1 and 1.1.3 were met.
4. Crowe selected a sample of two out of 12 monthly broker statements in CY 2025 to determine whether the Advisor exited the futures contracts on a monthly basis so as to correspond to the actual purchase of fuel and in the same approximate volume.
5. Crowe engaged our Subject Matter Experts at Willis, Graves & Associates ("WGA") to review the population of monthly fuel volume purchased, monthly Advisor reports, and Mansfield fuel supply contract to determine whether the physical supply of fuel was maintained at reasonable levels (approximately 20,000 gallons per tank at each facility) to sustain uninterrupted operations in accordance with the Materials Management and Warehouse Standard Operating Procedure (SOP); evaluate whether physical fuel deliveries were consistently priced according to daily spot market rates and the terms of fuel supply contracts; and review whether the strategies implemented by the fuel advisor during the audit period were in compliance with the guidelines outlined in FIN-11.1, Revision 3, Section 1.1.6.
6. We conducted an interview with SCRRRA's fuel Inventory Control Manager and reviewed weekly/monthly reports to determine whether fuel inventory levels were tracked, monitored, and maintained at reasonable levels (approximately 20,000 gallons per tank at each facility) to sustain continued support of operations in accordance with the Materials Management & Warehouse SOP.
7. Crowe obtained all Diesel Fuel and DEF Deliveries Reports generated by SCRRRA's Inventory Control Manager during the audit period and reviewed a sample of 25 fuel purchases from a population of 1,803 purchases to determine whether the fuel purchase records in Diesel Fuel and DEF Deliveries Reports agree with the supporting invoice and Bill of Lading documentation.

| Objective 1: Determine whether SCRRA was in compliance with FIN-11.1 Rev. 3 policies and procedures for January 1, 2025, through December 31, 2025. |                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                     | 8. We interviewed Metrolink's Assistant Director of General Accounting regarding the process for addressing strategy objectives in FIN-11.1; Revision 3; Section 1.1.6 (Spot Market and Hedging Strategy Guidelines).                                                                                                                                     |
|                                                                                                                                                     | 9. Crowe obtained all weekly advisor reports submitted during 2025 and reviewed a sample of six weekly reports to determine whether status updates and program results were provided to Finance Staff at Metrolink weekly.                                                                                                                                |
|                                                                                                                                                     | 10. Crowe obtained all monthly reports submitted to the Fuel Manager by the Advisor and reviewed a sample of two monthly reports to determine whether the required risk analysis was included:                                                                                                                                                            |
|                                                                                                                                                     | a) Cash flow at risk (CFAR) analysis based on diesel futures implied option volatility.                                                                                                                                                                                                                                                                   |
|                                                                                                                                                     | b) Projected variability of cost gross and net hedge at the one and two standard deviation levels.                                                                                                                                                                                                                                                        |
|                                                                                                                                                     | c) Budget risk analysis establishing a current probability of exceeding budget at strategic levels.                                                                                                                                                                                                                                                       |
|                                                                                                                                                     | 11. Crowe obtained all quarterly reporting for the audit period and reviewed a sample of one quarterly board report and board packet information to determine whether program performance was reported, including purchases vs. spot market, and cost breakdowns by transaction and price variance as required by FIN-11.1, Revision 3, Section 1.1.7(g). |
|                                                                                                                                                     | 12. We obtained and reviewed the GASB 53 Analysis from Metrolink to confirm the use of regression analysis for evaluating hedge effectiveness.                                                                                                                                                                                                            |
| <b>Conclusion:</b>                                                                                                                                  | SCRRA complied, in all significant respects, with Objective 1.                                                                                                                                                                                                                                                                                            |



## **SCOPE**

The scope of this performance audit was to evaluate SCRRA's compliance with the Fuel Purchasing Policy, FIN-11.1 Rev. 3. The objective of this audit falls within the full annual period of January 1, 2025, through December 31, 2025.

## **CONCLUSION**

Crowe determined that SCRRA complied, in all significant respects, with the objective of the audit.

## Appendix I – FIN-11.1 Rev 3. Fuel Purchasing Policy



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### *Southern California Regional Rail Authority Finance Policies*

**TITLE:** Fuel Purchase Policy

**NO.** FIN-11.1

**EFFECTIVE DATE:** May 27, 2022

**REVISION:**3

**Adopted by Board:**

#### **PURPOSE**

The goal of the fuel management and hedging program is to minimize the budget risk resulting from the purchase of fuel. It will establish limits allowing the Chief Executive Officer to act on behalf of the Board of Directors in the procurement of fuel. In addition, it will identify how the fuel purchase program performance is monitored and reported to the board.

#### **APPLICATION**

This policy applies to the purchase of diesel fuel in current and future fiscal years.

#### **POLICY STATEMENT**

Ultra Low Sulfur California Air Resources Board (ULS CARB) # 2 Red Dyed Diesel Fuel is required to operate the Authority's fleet of diesel-powered locomotives. To minimize the risk of having large budget variances due to volatile fuel prices, a comprehensive energy management program will require the use of two instruments. The First is a Financial Instrument that will be executed through an established and maintained account with a Futures Commission Merchant (Broker) for the trading of Futures Contracts. The Second instrument uses the competitive purchase of fuel with daily market prices serving as the benchmark for supplier bids. It is important to note that in most cases, both instruments will be used together to effectively manage fuel procurement.

Metrolink will establish and maintain a fuel purchase management program that will:

- seek to decrease the volatility of diesel fuel cost;
- seek to increase the likelihood that actual net diesel fuel cost will remain below the budget;
- seek to increase the certainty of future diesel fuel cost;
- seek to attain a lower overall cost of diesel fuel in the long-term;



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## 1. PROCEDURES

### 1.1 Financial Instrument Hedging

- 1.1.1 Instruments** – Metrolink will establish and maintain an account with a Futures Commission Merchant (broker) for trading Futures Contracts. Metrolink will, through the management and direction of an Advisor, acquire, hold, and dispose of futures contracts in the operation of this Program. The high correlation between the movement of the price that Metrolink pays for its fuel locally and the movement of the value of these Futures Contracts, that are traded on the New York Mercantile Exchange (NYMEX) for delivery in the New York Harbor, contributes to the Program's effectiveness as a hedge. The volume of each Futures Contract is 42,000 gallons.
- 1.1.2 Maximum Hedge Ratio** – Metrolink's fuel consumption is highly predictable without significant variability over time. Given this, the maximum total hedge ratio will be up to 100% of forecasted consumption as more specifically described in section 1.1.6.
- 1.1.3 Maximum Hedge Maturity** – To allow the establishment of cost certainty in current and future budget periods, the maximum maturity of the Futures Contracts taken in conjunction with this Program is 36 months forward from the acquisition date as more specifically described in section 1.1.6.
- 1.1.4 Exiting Market Positions** – The Advisor will exit the Futures Contracts on a monthly basis so as to correspond to the actual purchase of Metrolink's local fuel and in the same approximate volume. This even liquidation of futures hedges through time and the even purchase of fuel via Metrolink's supply process assures the effectiveness of the hedging process over a fiscal year. Based on the difference between the hedge price (entry price) and the settlement price (exit price), there will be a realized gain or loss that will appear in the futures account. Exceptions to this would be in extraordinary situations and upon the advice of the Advisor or recommendation of the Fuel Hedge Consultant, and at the direction and approval of the CEO, as follows:
- where the volume of forecasted fuel consumption unexpectedly decreases in which case the hedge position may be adjusted to comply with Policy and reduce exposure
  - Contracts with 6-18 months left on them are at a premium at a time when fuel spikes abnormally high, greater than 1 standard deviation above the average



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- c. Where the national and/or global inventories show an increasing surplus trend or correction, contracts remaining can be sold to eliminate downside risk.

**1.1.5 Physical Supply** - The physical supply of fuel will be reasonable fuel levels to sustain continue support of operations consistent with the Materials Management and Warehousing standard operating procedures. The physical supply deliveries will be priced according to daily spot pricing and fuel supply contract(s).

**1.1.6 Spot Market and Hedging Strategies Guidelines** - The Strategies are how the Program's objective is achieved. The Strategies will utilize a process:

- That addresses market opportunities and market risks;
- that holds the risk of exceeding budget at or below an acceptable level;
- that monitors the 15 year one to three standard deviations as a length of contract term parameter of the OPIS diesel index;
- that is continuously applied through time;

The strategies use various historical pricing averages and ranges as pricing parameters;

**Strategy 1** – Purchase at 15-year average spot pricing, global diesel demand is greatly being reduced year to year, no risk of delivery present, worldwide surplus present

- **\$219 and above purchase future contracts up to 6 months up to 80% of demand**

**Strategy 2** – Protect average pricing by purchasing shorter term contracts in the lower 1<sup>st</sup> deviation of the OPIS diesel index 15-year parameters

- **\$152 - \$219 purchase future contracts up to 18 months up to 80% of demand**

**Strategy 3** – Protect longer term average pricing by purchasing contracts in the 2nd deviation of the OPIS diesel index 15-year parameters

- **\$86 - 152 purchase future contracts up to 36 months up to 80% of demand**

**Strategy 4** – Takes advantage of historically low pricing during times of low market demand or oversupply that occurs every 5 - 10 years



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by purchasing contracts in the 3<sup>rd</sup> lower deviation of the OPIS diesel index 15-year parameters

- Below **\$86** purchase future contracts up to 100% demand

This will be accomplished by the Advisor executing the appropriate transactions at the appropriate times to create the desired effect within the constraints of the Policy.

#### **1.1.7 Execution, Monitoring & Reporting**

- a. The Advisor will be responsible for the day-to-day execution of the Program including the execution of transactions, generating reports on the program's status and results, and monitoring the Program and the energy markets.
- b. The Advisor will generate weekly update on the status and results of the Program
- c. The Advisor will generate monthly report regarding the status and results of the program including an analysis of risk. This analysis of risk will include (1) cash flow at risk (CFAR) analysis based on diesel futures implied option volatility; (2) projected variability of cost gross and net of hedge at the one and two standard deviation levels and (3) budget risk analysis establishing a current probability of exceeding budget at the strategic levels.
- d. To allow hedging to be more responsive to market conditions, the process may include; (a) reviewing current and forecast fuel markets as part of the annual budgeting and planning process to decide whether modifications to the current specifications are warranted; and (b) rebalancing fuel budget stability goals towards market responsiveness by adjusting the percentage of hedge volumes and/or adjusting the forward positions.
- e. The reports will be received by Metrolink Finance Staff.
- f. Oversight of the program will be primarily the responsibility of Finance Staff at Metrolink with support from the Finance bench.
- g. Reporting to the Board on the performance of the program will occur quarterly or more frequently if the Board deems appropriate. This will include performance of the purchases against the budget and spot market, with the cost of the program broken down by transaction costs and price variance of gallons delivered. The CFO will report on any program performance deviation outside the Spot Market and Hedging Strategies.
- h. The Fuel Purchase Program shall be audited annually. In addition, the board shall establish an Ad Hoc Committee at the time of the





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annual audit for the limited purpose of reviewing audit results and reporting to the Board of Directors.

#### **1.1.8 Effectiveness Analysis**

- a. Fuel-related futures contract transactions are recorded at fair value on the Balance Sheet as either an asset or liability depending on their fair value; the related realized gains and/or losses for effective hedges are deferred. Realized gains and losses on these transactions are recognized as fuel expense in the specific period in which the instrument is settled.
- b. With the assistance of our Fuel Hedge Advisor, the Authority uses regression analysis method to evaluate the effectiveness of our fuel hedge.
- c. The regression analysis method evaluates effectiveness by considering the statistical relationship between the cash flows or fair values of the potential hedging instrument and the hedgeable item. The changes in cash flows or fair values of the potential hedging instrument substantially offset the changes in cash flows or fair values of the hedgeable item if all of the following criteria are met:
  - i. The R-squared of the regression analysis is at least 0.80.
  - ii. The F-statistic calculated for the regression model demonstrates that the model is significant using a 95 percent confidence interval.
  - iii. The regression coefficient for the slope is between  $-1.25$  and  $-0.80$ .
- d. The regression analysis should be based on sufficient data to determine if the potential hedging instrument is effective as of the end of the reporting period.

#### **DEFINITION OF TERMS**

**Binding Contract** – The agreement between two (or more) parties that creates a legal obligation to exchange consideration, usually money, for specific performance requirements (e.g., delivery of goods)



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**Futures Contract** – A contract between two parties that fixes the date of delivery at the New York Harbor and the price on that date for a 42,000-gallon unit.

**Oil Price Information Service (OPIS)** – A nationally recognized, independent surveyor/index of the nation's energy markets.

**Ultra-Low Sulfur Fuel (ULS)** – Diesel fuel containing less than 15 ppm sulfur

**Spot Pricing** – Daily market price of diesel fuel as published by OPIS.

**Advisor** – The professional contracted by Metrolink to advise, execute, monitor, and report regarding the diesel futures hedging contract strategy and policy consistent with those responsibilities set forth in 1.1.7.

**California Air Resources Board (CARB)** – The clean air agency for the State of California.

## **RESPONSIBILITIES**

**Board of Directors** – responsible for setting policy, due diligence, designating the Fuel hedging advisor and delegating specified approval authority for purchasing diesel fuel to the Fuel Manager.

**Contracts Administration & Procurement Department (CA&P)** - responsible for conducting, in accordance with Board approved policies, all procurement activities on behalf of the Authority and developing and maintaining procedures related to all procurement matters.

**Metrolink Finance Staff**– responsible for ensuring this policy is followed and approving contracts and purchase orders within authority levels delegated by the Board.

## **POLICY HISTORY**

January 23, 2015 – New Policy and Procedures document approved

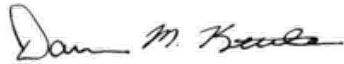
December 11, 2020 – New policy document approved

May 27, 2022 – Update strategy parameters

November 13, 2022 – Updated policy to replace the role of the Fuel Hedge Oversight Consultant with Metrolink Staff. Also, added GASB 53 Effectiveness Analysis and language regarding reporting any program performance deviation outside the Spot Market and Hedging Strategies.

## CEO ACKNOWLEDGEMENT

***Reviewed and acknowledged by:***



August 25, 2026

---

Darren M. Kettle  
Chief Executive Officer

Date



# METROLINK

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## **Performance Audit: Fuel Purchase Policy FIN 11.1 Rev. 3**

*Receive and file.*

# Objectives and Results

- Objective: Check compliance with FIN-11.1 Revision 3 for audit period Jan-Dec 2025
- Engaged Public Accounting Firm Crowe LLP
- Results: No exceptions
  - SCRRRA found to be in compliance with all significant aspects
  - Presented to the Fuel Hedge Ad Hoc Committee on August 19







**METROLINK**

Thank you.



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**ITEM ID:** 2026-290-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** FY2025-26 Quarterly Fuel Purchase Program Update - Quarter Ending June 30, 2026

**Issue**

Staff is providing an update on the Authority's Fuel Purchase Program for the quarter ended June 30, 2026.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitment of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, object metrics and streamlined governance, reducing over-reliance on subsidy while bringing our system into a state of good repair and investing in the development of our employees. Working together with our fuel purchase program partners we can provide better assurance we will meet our budgetary goals.

**Background**

The Agency's FY25 fuel budget is approximately 10.0% of the total Operating Budget. Given the volatility of fuel pricing, the Authority's actual fuel expense has ranged from \$21.2M to \$31.9M, accounting for 8.7% to 12.1% of the actual operating expenditures in the past four years (FY22-FY25).

Finance Policy FIN-11.1, Fuel Purchase Policy, was approved by the Board on December 11, 2020. This policy was implemented to minimize the budget risk resulting from the purchase of diesel fuel. In addition, it identifies how the fuel purchase program performance is monitored and reported to the Board. Over the past five years, the policy has undergone multiple revisions, with the most recent version approved by the board on February 27, 2026. This latest update clarified previously ambiguous language throughout the document.

The Board has requested that staff provide quarterly updates on our Fuel Purchase Program.

## **Discussion**

The primary objective of the Fuel Purchase Program is to ensure predictability in the Agency's fuel costs. Accordingly, the sale of positions may result in a gain or loss, depending on fluctuations in fuel contract prices.

As of June 30, 2026, the Authority's hedging account had a value of \$4,194,414, a decrease of \$362,399 from March 31, 2026, after transferring excess funds back to a money market account. On March 24, 2026, the Authority returned \$2.7 million in excess funds held in the futures account. The futures account report for quarter ended March 31, 2026, provided by Blue Lacy, LLC is included in Attachment A. The performance of contract purchases against the spot market with the realized gains achieved by the program are included in Attachment B.

A current fuel hedging and petroleum market update from Blue Lacy is included in Attachment C. In addition, Attachment C graphically illustrates anticipated market movements and the associated risks related to those fluctuations.

Recent geopolitical events, including ongoing conflicts in the Middle East and Eastern Europe, as well as global shipping disruptions, have contributed to increased volatility in diesel fuel markets. While these developments have affected diesel fuel prices, the impact on the Authority's diesel fuel expense has been partially mitigated through existing fuel hedging activities.

To date, the Authority has not experienced a significant adverse impact on operating results because of these events. However, prolonged geopolitical instability may continue to influence fuel prices. Potential future impacts could include increased fuel costs, reduced effectiveness of hedging mitigation (under Strategy 1 of Metrolink's Fuel Purchase Policy), and decreased predictability of future fuel expenses.

Strategy 1 of Metrolink's Fuel Purchase Policy states: "When the 15-year average of the NYMEX futures contract price is \$219 and above, purchase futures contracts for up to six months and up to 80% of demand."

The Authority has started internal discussions regarding Strategy 1, including the purchasing of an additional six months into the future to provide up to 12 months of coverage for an entire fiscal year, rather than the current six-month coverage period contemplated under the existing strategy.

**Next Steps**

Staff will provide a quarterly update for the first quarter of FY27 in November.

Prepared by: Alex Barber, Assistant Director, Finance

Approved by: Tom Schamber, Chief Financial Officer

**Attachment(s)**

Attachment A - FY26 Q4 Blue Lacy Futures Report

Attachment B - FY26 Q4 Performance of Futures Purchased

Attachment C - FY26 Q4 Fuel Hedging Commentary

Presentation - FY26 Q4 Quarterly Fuel Hedge Report

## ATTACHMENT A

### BLUE LACY, LLC

|                                                                                    | Quarter Ending<br>March 31,<br>2026 | Quarter Ending<br>June 30,<br>2026 |
|------------------------------------------------------------------------------------|-------------------------------------|------------------------------------|
| <b>Cumulative Fuel Expense (including brokerage fees)</b>                          | (5,511,383)                         | (8,320,874)                        |
| <b>Cumulative net cash from Metrolink to futures account</b>                       | (5,764,634)                         | (5,764,634)                        |
| <b>Contingent future fuel expense</b>                                              | (3,445,361)                         | (273,550)                          |
| <b>Account Value = cash asset after fuel expense minus contingent fuel expense</b> | 4,556,813                           | 4,194,414                          |
| <b>Cash asset after fuel expense</b>                                               | 1,111,452                           | 3,920,864                          |

|                                                                        |             |             |
|------------------------------------------------------------------------|-------------|-------------|
| <b>Annual Fuel Expense from futures</b>                                | (1,724,233) | (4,533,725) |
| <b>Annual Cash from Metrolink to futures account</b>                   | (2,700,000) | (2,700,000) |
| <b>Annual Cash from Metrolink to futures account less fuel expense</b> | 975,767     | 1,833,725   |



BLUE LACY, LLC

HISTORICAL ANALYSIS: FY 2026

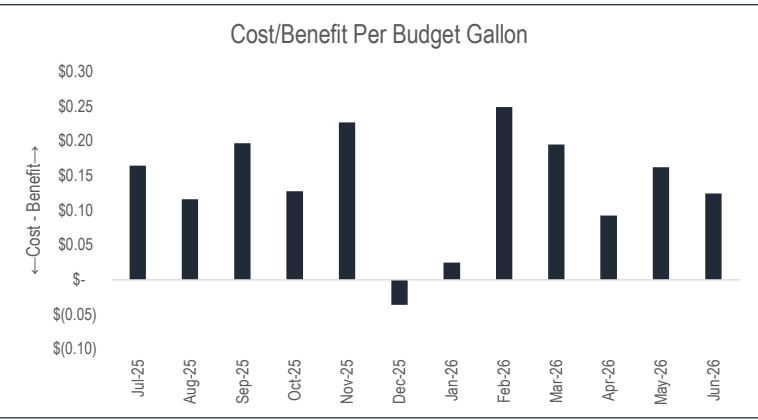
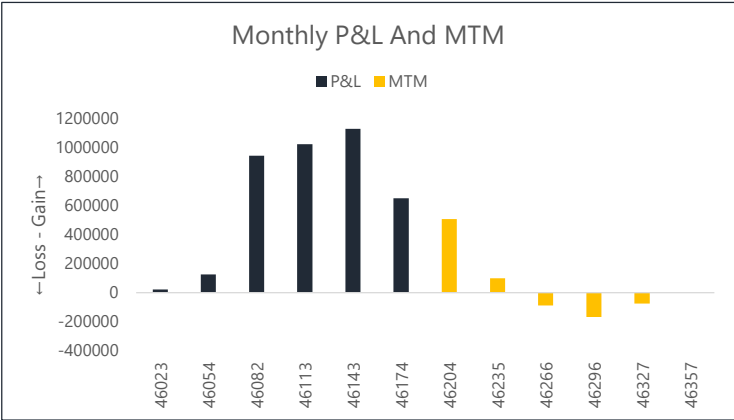
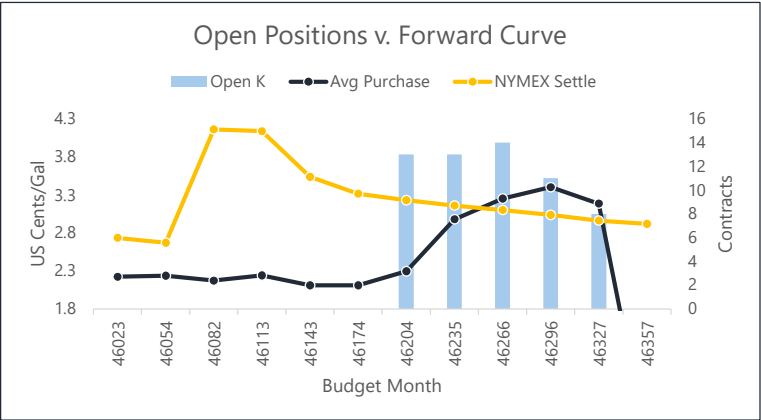
Diesel Hedging Analysis

June 30, 2026

ATTACHMENT B

| As 30-Jun |      |  | Supplier  |          |         | Hedge Activity   |           |          |       |       |             |        |          |           |          | MTM and P&L |                 |           |           |                 | ML Cost |  |
|-----------|------|--|-----------|----------|---------|------------------|-----------|----------|-------|-------|-------------|--------|----------|-----------|----------|-------------|-----------------|-----------|-----------|-----------------|---------|--|
| Budget    |      |  | Purchased | Supplier | NYMEX   | Avg              |           |          |       |       |             |        |          |           |          |             |                 |           | Per Gal   | Per Gal         |         |  |
| Month     | Days |  | Volume    | w/Tax    | Settle  | Supplier Cost    | Fut Month | Purchase | Beg K | ΔK    | Δ Gal       | Open K | Open Gal | Total Gal | % Hedged | MTM         | P&L             | Hedged    | Purchased | Total           | Per Gal |  |
| Jul-25    | 31   |  | 868,996   | \$ 3.31  | \$ 2.40 | \$ 2,910,156.24  | Aug-25    | \$ 2.20  | 16    | (16)  | (672,000)   | -      | -        | 672,000   | 77%      | \$ -        | \$ 143,124.24   | \$ 0.21   | \$ 0.16   | \$ 2,770,141.44 | \$ 3.19 |  |
| Aug-25    | 31   |  | 806,904   | \$ 3.08  | \$ 2.27 | \$ 2,533,247.51  | Sep-25    | \$ 2.13  | 15    | (15)  | (630,000)   | -      | -        | 630,000   | 79%      | \$ -        | \$ 93,421.16    | \$ 0.15   | \$ 0.12   | \$ 2,417,775.61 | \$ 3.02 |  |
| Sep-25    | 30   |  | 860,943   | \$ 3.44  | \$ 2.33 | \$ 3,008,309.70  | Oct-25    | \$ 2.05  | 14    | (14)  | (588,000)   | -      | -        | 588,000   | 70%      | \$ -        | \$ 166,478.00   | \$ 0.28   | \$ 0.20   | \$ 2,781,793.61 | \$ 3.30 |  |
| Oct-25    | 31   |  | 818,712   | \$ 3.27  | \$ 2.43 | \$ 2,719,822.94  | Nov-25    | \$ 2.07  | 14    | (14)  | (588,000)   | -      | -        | 588,000   | 74%      | \$ -        | \$ 101,418.44   | \$ 0.17   | \$ 0.13   | \$ 2,533,663.94 | \$ 3.20 |  |
| Nov-25    | 30   |  | 699,523   | \$ 3.37  | \$ 2.33 | \$ 2,391,977.32  | Dec-25    | \$ 2.24  | 15    | (15)  | (630,000)   | -      | -        | 630,000   | 90%      | \$ -        | \$ 158,792.36   | \$ 0.25   | \$ 0.23   | \$ 2,233,185.32 | \$ 3.19 |  |
| Dec-25    | 31   |  | 861,002   | \$ 2.87  | \$ 2.12 | \$ 2,519,055.58  | Jan-26    | \$ 2.28  | 15    | (15)  | (630,000)   | -      | -        | 630,000   | 75%      | \$ -        | \$ (30,217.80)  | \$ (0.05) | \$ (0.04) | \$ 2,467,058.61 | \$ 2.93 |  |
| Jan-26    | 31   |  | 770,747   | \$ 2.95  | \$ 2.74 | \$ 2,275,695.09  | Feb-26    | \$ 2.22  | 14    | (14)  | (588,000)   | -      | -        | 588,000   | 76%      | \$ -        | \$ 20,048.48    | \$ 0.03   | \$ 0.03   | \$ 2,255,646.61 | \$ 2.93 |  |
| Feb-26    | 28   |  | 689,695   | \$ 3.18  | \$ 2.67 | \$ 2,235,469.96  | Mar-26    | \$ 2.24  | 13    | (13)  | (546,000)   | -      | -        | 546,000   | 79%      | \$ -        | \$ 125,573.48   | \$ 0.23   | \$ 0.18   | \$ 2,109,896.48 | \$ 3.06 |  |
| Mar-26    | 31   |  | 774,577   | \$ 4.74  | \$ 4.16 | \$ 3,711,862.02  | Apr-26    | \$ 2.17  | 14    | (14)  | (588,000)   | -      | -        | 588,000   | 77%      | \$ -        | \$ 945,594.96   | \$ 1.61   | \$ 1.23   | \$ 2,728,986.47 | \$ 3.55 |  |
| Apr-26    | 30   |  | 682,499   | \$ 5.10  | \$ 4.14 | \$ 3,528,278.14  | May-26    | \$ 2.24  | 14    | (14)  | (588,000)   | -      | -        | 588,000   | 88%      | \$ -        | \$ 1,026,122.44 | \$ 1.75   | \$ 1.54   | \$ 2,415,975.42 | \$ 3.62 |  |
| May-26    | 31   |  | 656,901   | \$ 4.94  | \$ 3.54 | \$ 3,291,333.21  | Jun-26    | \$ 2.11  | 15    | (15)  | (630,000)   | -      | -        | 630,000   | 146%     | \$ -        | \$ 1,132,909.88 | \$ 1.80   | \$ 2.63   | \$ 1,036,941.69 | \$ 2.41 |  |
| Jun-26    | 30   |  | 761,884   | \$ 4.05  | \$ 3.32 | \$ 3,108,571.49  | Jul-26    | \$ 2.11  | 12    | (12)  | (504,000)   | -      | -        | 504,000   | 91%      | \$ -        | \$ 650,459.00   | \$ 1.29   | \$ 1.18   | \$ 2,311,894.81 | \$ 4.19 |  |
| FY 25-26  | 365  |  | 9,252,383 | \$ 3.65  | \$ 2.87 | \$ 34,233,779.19 |           | \$ 2.17  | 171   | (171) | (7,182,000) | -      | -        | 7,182,000 | 78%      |             | - 4,533,725     | \$ 0.64   | \$ 0.63   | 28,062,960      | \$ 3.22 |  |

BLUE LACY, LLC



3 Aug 2026

**SCRRA**

# Monthly Portfolio Update

## Your 30-Second Brief

EOM rally pushes the portfolio to record highs, but is it sustainable?

Higher acquired prices require continued awareness of downside risks

With our cushion, though, that risk is likely in 4Q calendar months



**BLUE LACY ADVISORS, LLC**  
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**Disclaimer:** Commodity trading involves risk and, therefore, is not appropriate for all persons; failure to manage commercial risk by engaging in some form of hedging also involves risk. Past performance is not necessarily indicative of future results. There is no guarantee that hedge program objectives will be achieved. No representation is being made that any client will or is likely to achieve hedge profits similar to those discussed in this presentation. This report should not be considered advertisement or solicitation for a trading program, nor should it be construed as advice.

This report is not required to be, and has not been, filed with the Commission. The Commodity Futures Trading Commission does not pass upon the adequacy or accuracy of this commodity training advisor disclosure. Consequently, the Commodity Futures Trading Commission has not reviewed or approved this report.



## Executive Summary

### OPIS CARB Diesel, RD was not traded.

Neither the outright contract nor the spread contract recorded daily volume on ICE last month for any forward month available for trading. As of July 31, 2026, there was no open interest in either contract.

### Increasing pressure to resolve global conflict; maintaining view of more downside from here.

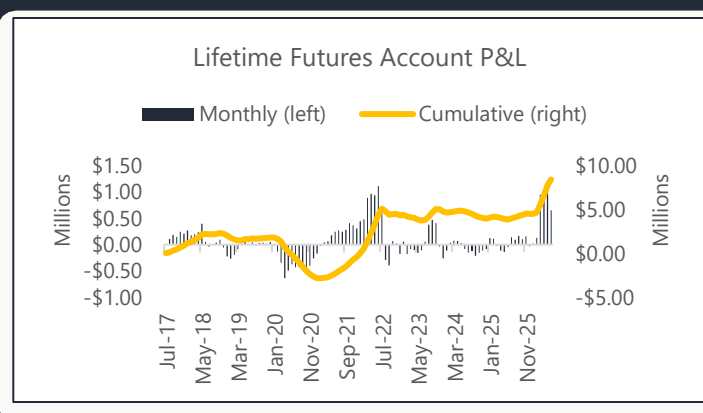
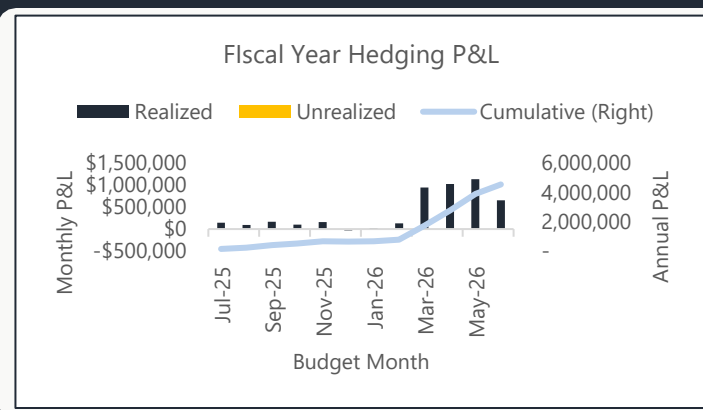
The portfolio is performing, thankfully, but it doesn't seem sustainable. Outside of a the perma-bull barrel counters, markets appear to have priced in expectations in line with what we've been saying, "more downside scenarios, even of the upside tails are longer."

Fuel markets, and diesel in particular, are tight, no doubt. Fundamentally, not much has changed, as evidenced by a curve that is higher since our last review, even if backwardation is shallower. We are moving into a seasonally soft period for crude oil, which may drag down fuel prices, but given the constraint appears to be in refining, relief may not come into the end of the year.

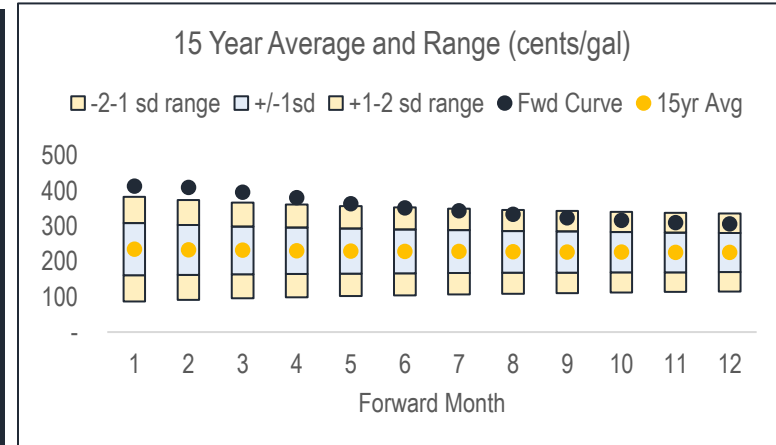
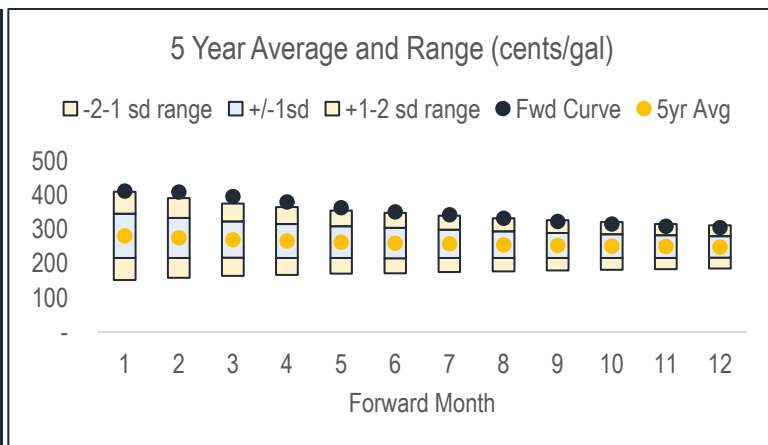
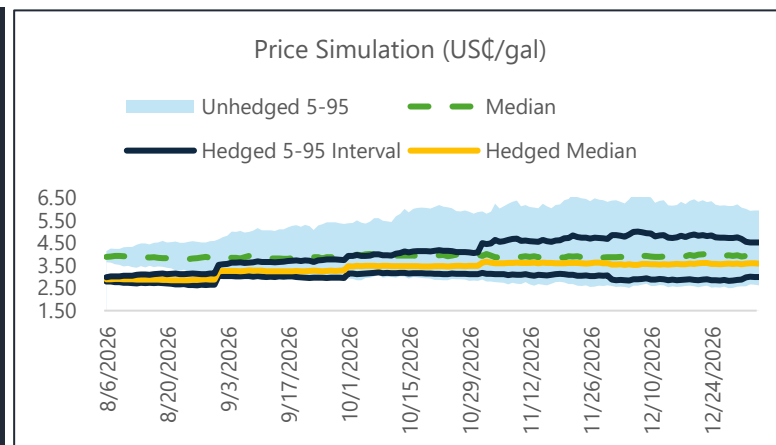
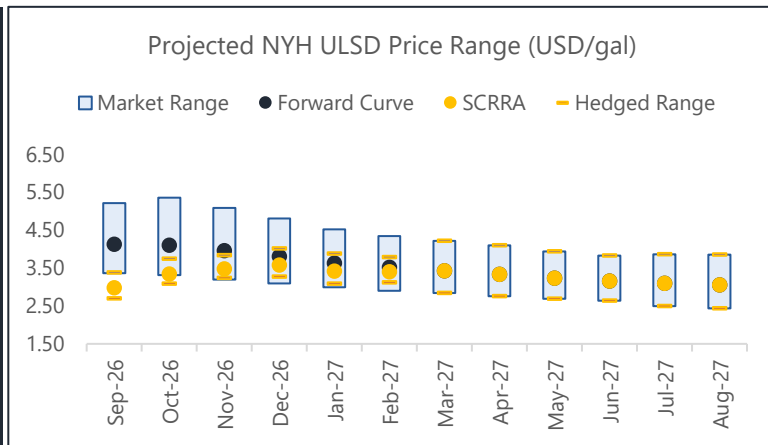
### But this is why we are hedgers, not speculators

For the Metrolink portfolio, however, that generally means we'll stay the course. We will continue to pursue a rolling 6 months (instead of 12) and remain mindful of our acquired price and the implication for cash management. The August hedges (Sept Futures) averaged \$2.98, ending the month >\$600k in the money. Even our highest average (Oct Futures, \$3.40) ended the month in the money, and remain ITM even after a 16 cents/gal selloff today. So, while sentiment (including ours) is increasingly focused on downside risks, we've thankfully followed our own rules and expect to benefit:m Before the selloff, the portfolio hit a record \$9.2mm cumulative benefit, with an official end-of-month open trade equity of \$1.46mm.

**Summary:** It looks like the expected opportunity to establish hedges at lower prices is materializing, but so far that doesn't mean real relief. We'll continue to conservatively acquire hedges at the 6<sup>th</sup> month and, if the downside fears materialize, evaluate opportunities to extend that to 12.

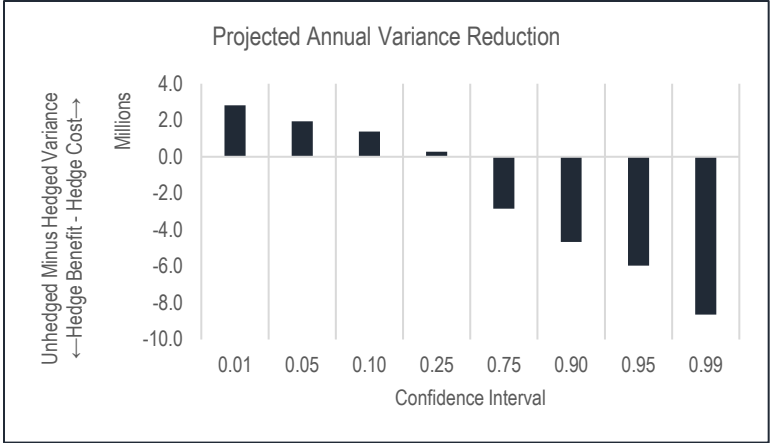
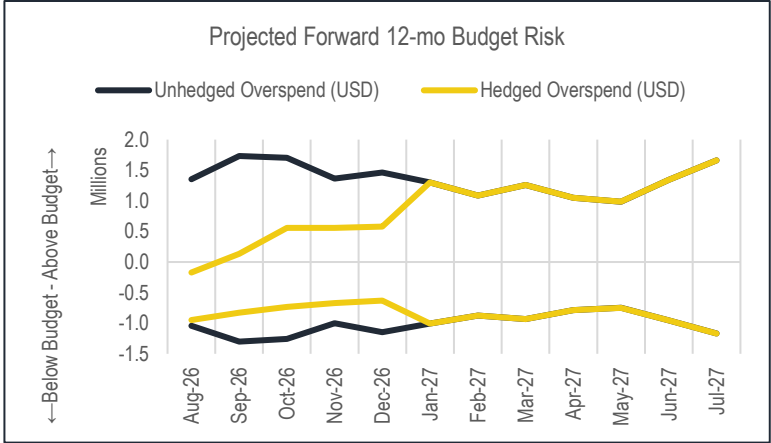
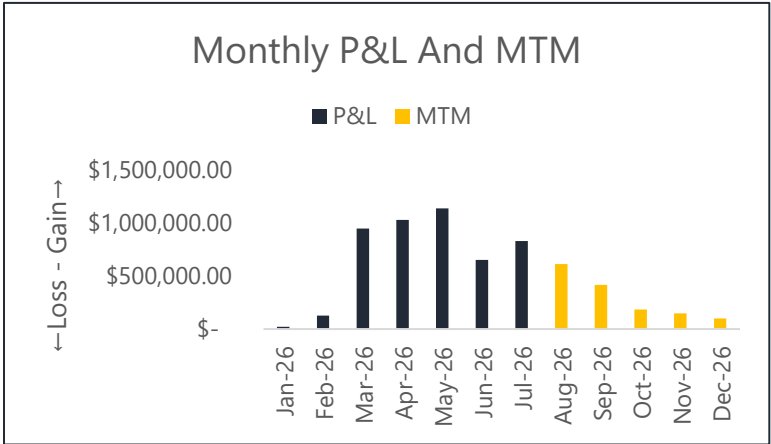
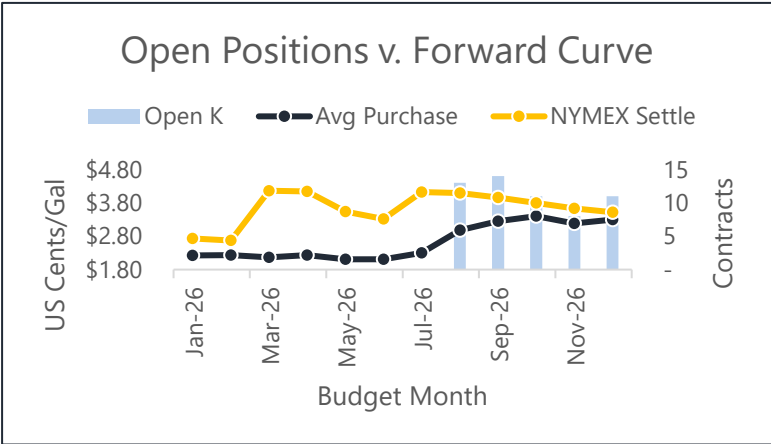


# A late month rally supported gains, but less and less of the portfolio enjoys the advantaged positions of pre-war execution





# Higher hedged prices in the latter part of 2026 push the portfolio's expected range, which we will monitor as we build the positions going foward



# Blue Lacy Advisors, LLC



Steve Sinos



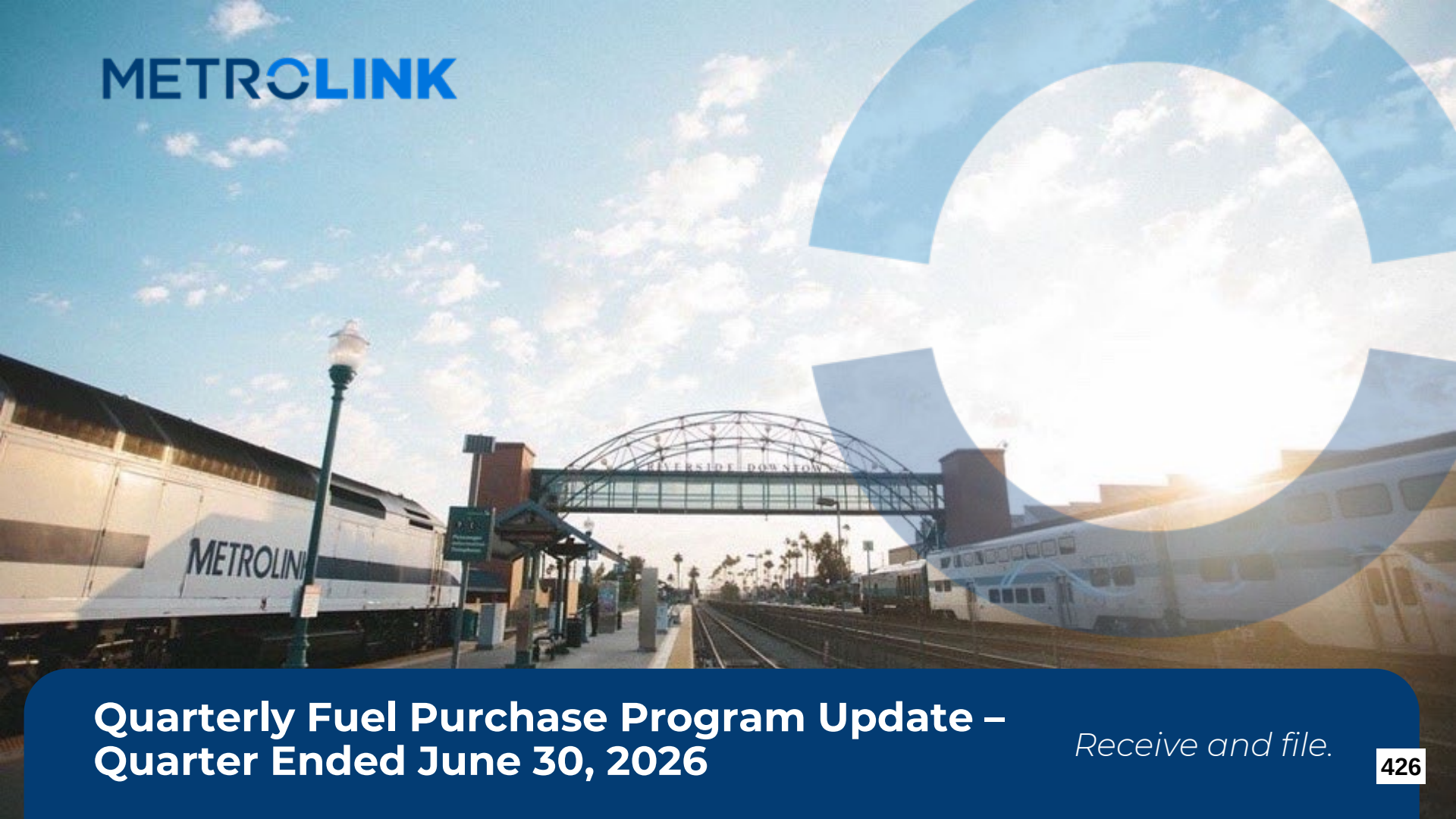
Managing Partner



[sinos@bluelacyllc.com](mailto:sinos@bluelacyllc.com)



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The background of the slide is a photograph of a Metrolink train station. On the left, a white Metrolink train is stopped at the platform. In the center, a pedestrian bridge with a metal arch spans over the tracks, with the words "RIVERSIDE DOWNTOWN" visible on its structure. The sky is blue with scattered white clouds, and the sun is low on the horizon to the right, creating a bright glow. A large, semi-transparent blue circular graphic is overlaid on the right side of the image.

**METROLINK**

## **Quarterly Fuel Purchase Program Update – Quarter Ended June 30, 2026**

*Receive and file.*

**426**



As of June 30, 2026, the Authority's hedging account had a value of \$4,194,414, a decrease of \$362,399 from March 31, 2026.





**METROLINK**

Thank you.





[metrolinktrains.com/meeting](http://metrolinktrains.com/meeting)

**ITEM ID:** 2026-301-0

**TRANSMITTAL DATE:** September 18, 2026

**MEETING DATE:** September 25, 2026

**TO:** Board of Directors

**FROM:** Tom Schamber, Chief Financial Officer

**SUBJECT:** Report of FY27 Financial Results for the One Month Ended July 2026

**Issue**

This report covers monthly Ridership, Revenue, and Financial Operating Performance for the first month of FY27. The Ridership and Revenue data emphasizes "By Line" performance. The reporting also displays the effect of farebox subsidies in this year compared to last year. Financial performance reporting emphasizes adherence to budget, particularly at the Member Agency Support Line.

**Recommendation**

Receive and file.

**Strategic Commitment**

This report aligns with the Strategic Business Plan commitments of:

- **Modernizing Business Practices:** We will improve our operational efficiency through transparency, objective metrics and streamlined governance, reducing over-reliance on Member Agency support while bringing our system into a state of good repair and investing in the development of our employees. Providing current and accurate information based on factual data to our Board enhances their oversight and ability to provide direction.
- **Customers Are Our Business:** We respect and value our customers, putting them at the heart of all we do, and work hard to attract and retain new customers by understanding their needs and finding new and innovative ways to bring them on board.

Our close monitoring of our ridership is a reflection of our unflagging efforts to ensure our actions are serving their needs.

## **Background**

The fiscal year FY27 is a unique one for Metrolink. The organization is endeavoring to find ways to provide the desired level of service while achieving a sustainable level of support from our Member Agencies.

This year's attempts at budgeting have seen 8 versions of service levels and 6 budget scenarios. We are hopeful that we will soon settle upon a scenario that will satisfy the requirements of our Member Agencies. While finding an acceptable service plan, it has been necessary to adopt continuing resolutions to fund current operations through the extended development period.

On June 26, 2026, the Board of Directors approved a three-month Continuing Appropriations Resolution to provide funding for continuing operations for both Metrolink and Arrow Service through September 30, 2026. The Appropriation was set equal to the first quarter of FY26 plus necessary prepaid Insurance coverage.

On July 24, 2026, the Board of Directors approved a three-month extension of the Continuing Appropriations Resolution to provide funding for continuing operations for both Metrolink and Arrow Service through December 31, 2026. The Appropriation was set at the amount equal to the second quarter of FY26.

## **Discussion**

It has been our normal practice to make comparisons of Actual Ridership and Revenue to our Budget for Ridership and Revenue. This year, because the Board has not yet adopted a budget, we will make comparisons to last year's performance.

### **Ridership**

For the month of July 2026 ridership was 675K boardings, showing a 16% increase over last year. Ridership increased in both the base and the subsidized riders.

Looking at performance by line, every line increased ridership in July compared to last year. The increases range from 7% to 22%, with the largest % increases on the 91/Perris Valley and IEOC Lines.

### **Fare Revenue**

For the month of July, Fare revenue, including subsidies, is also an increase over last year, totaling \$3.9M or a 10.6% increase. With a definite increase in base revenue, total receipts were also boosted by a 48% increase in use of the Mobility for All program. The addition of the ability to use the Mobile App to take advantage of the Mobility for All program has boosted its usage. Revenue increased over last year on every line, with increases ranging from 3% to 18%. IEOC ranked first with an 18% increase.

### Operating Results for Metrolink

**Operating Revenue is \$5.6M**, over FY26 Actual by \$63K or 1.1%.

**Expenses are \$28.3M**, over the FY26 Actual by \$2.0M or 7.6%. Some expenses may contain accruals.

**Overall Net Loss is \$22.8M**, over FY26 Actual by \$1.9M, or 9.3%.

The Metrolink Operating Statement for July 31, 2026, is attached for further review, in addition to graphs of individual line performance by month.

### **Arrow Service**

#### Ridership

For the first month of FY27, Arrow Service ridership was 14K boardings, while the boardings for July FY26 were 9K boardings, a 56% increase over last year. Both subsidized and unsubsidized ridership showed increases. The increase is driven largely by a very successful Free College Student program which is subsidized by SBCTA.

#### Fare Revenues

July 2026, Arrow Service Fare Revenues were \$24K while the Actual for FY26 was \$20K, an increase of 16.6%.

#### Operating Results

Operating Revenue for July 2026 for Arrow Service is \$46K, over FY26 Actuals by \$5K or 11.9%.

Expenses are \$1.3M, over FY26 Actuals by \$28K or 2.2%. Some expenses may include accruals.

Support required is \$1.2M, over FY26 Actuals \$23K or 1.9%.

The Arrow Service Operating Statement for the period ended July 31, 2026, is attached for further review.

### **Next Steps**

Staff will report financial results monthly.

Prepared by: Christine Wilson, Assistant Director, Finance

Approved by: Tom Schamber, Chief Financial Officer

### **Attachment(s)**

[Attachment A - Metrolink Operating Statement](#)

[Attachment B - Arrow July Operating Statement](#)

[Attachment C - Ridership By Line](#)

[Presentation - July 2026 Financial Results](#)

| <b>SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY</b><br><b>PRELIMINARY OPERATING STATEMENT</b><br><b>FOR THE ONE MONTH ENDING JULY 31, 2026</b> |                      |                      |                                   |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|-----------------------------------|-----------------|
|                                                                                                                                               | <b><u>FY26</u></b>   | <b><u>FY27</u></b>   | <b><u>VARIANCE FROM PRIOR</u></b> |                 |
|                                                                                                                                               | <b><u>ACTUAL</u></b> | <b><u>ACTUAL</u></b> | <b><u>YEAR ACTUAL</u></b>         |                 |
| <b>Operation Revenue</b>                                                                                                                      |                      |                      | <b><u>AMOUNT</u></b>              | <b><u>%</u></b> |
| Farebox Revenue                                                                                                                               | 3,035,029            | 3,315,267            | 280,238                           | 9.2%            |
| SB Line Fare Reduction                                                                                                                        | 28,119               | 23,894               | (4,225)                           | (15.0%)         |
| Mobility 4 All                                                                                                                                | 52,622               | 78,139               | 25,517                            | 48.5%           |
| Student Youth Discount Grant                                                                                                                  | 175,457              | 236,328              | 60,871                            | N/A             |
| SBCTA College Pass Program                                                                                                                    | 0                    | 2,500                | 2,500                             | N/A             |
| Other Train Subsidies                                                                                                                         | 224,018              | 230,739              | 6,721                             | 3.0%            |
| <b>Subtotal Fare Revenues</b>                                                                                                                 | <b>3,515,246</b>     | <b>3,886,867</b>     | <b>371,621</b>                    | <b>10.6%</b>    |
| Dispatching                                                                                                                                   | 218,662              | 192,662              | (26,000)                          | (11.9%)         |
| State Rail Asst.(SRA) Revenue                                                                                                                 |                      |                      | 0                                 | N/A             |
| Other Revenues                                                                                                                                | 640,565              | 315,793              | (324,772)                         | (50.7%)         |
| MOW Revenues                                                                                                                                  | 1,139,795            | 1,182,098            | 42,303                            | 3.7%            |
| <b>Total Operating Revenues</b>                                                                                                               | <b>5,514,268</b>     | <b>5,577,420</b>     | <b>63,152</b>                     | <b>1.1%</b>     |
| <b>Operating Expenses</b>                                                                                                                     |                      |                      |                                   |                 |
| <b><u>Operations &amp; Services</u></b>                                                                                                       |                      |                      |                                   |                 |
| Train Operators                                                                                                                               | 4,553,279            | 5,104,129            | 550,850                           | 12.1%           |
| Train Dispatch                                                                                                                                | 311,109              | 304,497              | (6,612)                           | (2.1%)          |
| Equipment Maintenance                                                                                                                         | 2,688,459            | 2,768,403            | 79,944                            | 3.0%            |
| Materials                                                                                                                                     | 1,235,266            | 1,356,297            | 121,031                           | 9.8%            |
| Fuel                                                                                                                                          | 2,495,829            | 2,644,960            | 149,131                           | 6.0%            |
| Operating Facilities Maintenance                                                                                                              | 347,556              | 369,688              | 22,132                            | 6.4%            |
| Other Operating Train Services                                                                                                                | 24,685               | 167,444              | 142,759                           | 578.3%          |
| Security - LA Sheriffs                                                                                                                        | 1,020,022            | 1,101,624            | 81,602                            | 8.0%            |
| Security - SB Sheriffs                                                                                                                        | 39,500               | 313,482              | 273,982                           | 693.6%          |
| Security - Guards                                                                                                                             | 488,000              | 535,936              | 47,936                            | 9.8%            |
| Supplemental Security                                                                                                                         | 0                    | 0                    | 0                                 | N/A             |
| Public Safety Program                                                                                                                         | 300                  | 300                  | 0                                 | 0.0%            |
| Passenger Relations                                                                                                                           | 152,369              | 158,598              | 6,229                             | 4.1%            |
| TVM Maint/Revenue Collection                                                                                                                  | 387,064              | 400,316              | 13,253                            | 3.4%            |
| Marketing                                                                                                                                     | 279,691              | 26,533               | (253,158)                         | (90.5%)         |
| Media & External Communications                                                                                                               | 0                    | 10,000               | 10,000                            | N/A             |
| Utilities / Leases                                                                                                                            | 212,396              | 183,987              | (28,409)                          | (13.4%)         |
| Transfers to Other Operators                                                                                                                  | 283,885              | 256,060              | (27,825)                          | (9.8%)          |
| Amtrak Transfers                                                                                                                              | 58,730               | 144,592              | 85,862                            | 146.2%          |
| Station Maintenance                                                                                                                           | 406,962              | 406,962              | 0                                 | 0.0%            |
| Rail Agreements                                                                                                                               | 599,276              | 575,634              | (23,642)                          | (3.9%)          |
| <b>Subtotal Operations &amp; Services</b>                                                                                                     | <b>15,584,377</b>    | <b>16,829,443</b>    | <b>1,245,066</b>                  | <b>8.0%</b>     |
| <b><u>Maintenance-of-Way</u></b>                                                                                                              |                      |                      |                                   |                 |
| MoW - Line Segments                                                                                                                           | 4,164,858            | 4,380,638            | 215,780                           | 5.2%            |
| MoW Labor & Benefits                                                                                                                          | 253,221              | 225,613              | (27,608)                          | (10.9%)         |
| Overhead MoW Expenses                                                                                                                         | 520,953              | 609,958              | 89,005                            | 17.1%           |
| METRO Outside 20'                                                                                                                             | 3,564                | 220,452              | 216,888                           | N/A             |
| MoW - Extraordinary Maintenance                                                                                                               | 69,062               | 69,063               | 1                                 | 0.0%            |
| <b>Subtotal Maintenance-of-Way</b>                                                                                                            | <b>5,011,659</b>     | <b>5,505,724</b>     | <b>494,065</b>                    | <b>9.9%</b>     |
| <b><u>Administration &amp; Services</u></b>                                                                                                   |                      |                      |                                   |                 |
| Ops Salaries & Benefits                                                                                                                       | 925,024              | 854,505              | (70,520)                          | (7.6%)          |
| Ops Non-Labor Expenses                                                                                                                        | 874,560              | 560,822              | (313,738)                         | (35.9%)         |
| Indirect Administrative Expenses                                                                                                              | 2,386,827            | 2,935,589            | 548,762                           | 23.0%           |
| Ops Professional Services                                                                                                                     | 183,609              | 63,752               | (119,856)                         | (65.3%)         |
| <b>Subtotal Administration &amp; Services</b>                                                                                                 | <b>4,370,020</b>     | <b>4,414,668</b>     | <b>44,648</b>                     | <b>1.0%</b>     |
| <b><u>Insurance Expense (Recoveries)</u></b>                                                                                                  |                      |                      |                                   |                 |
| Liability/Property/Auto/Misc                                                                                                                  | 1,308,489            | 1,364,087            | 55,598                            | 4.2%            |
| Net Claims / SI                                                                                                                               | (84,193)             | 57,500               | 141,693                           | (168.3%)        |

|                                                |                     |                     |                    |              |
|------------------------------------------------|---------------------|---------------------|--------------------|--------------|
| Claims Administration                          | 142,503             | 145,943             | 3,439              | 2.4%         |
| <b>Subtotal Insurance Expense (Recoveries)</b> | <b>1,366,799</b>    | <b>1,567,530</b>    | <b>200,731</b>     | <b>14.7%</b> |
| <b>Ordinary Operating Expense</b>              | <b>26,332,854</b>   | <b>28,317,364</b>   | <b>1,984,510</b>   | <b>7.5%</b>  |
| Mega Events                                    | 12,349              | 18,286              | 5,936              | 48.1%        |
| <b>Extraordinary Expense</b>                   | <b>12,349</b>       | <b>18,286</b>       | <b>5,936</b>       | <b>48.1%</b> |
| <b>Total Expenses</b>                          | <b>26,345,203</b>   | <b>28,335,650</b>   | <b>1,990,447</b>   | <b>7.6%</b>  |
| <b>Net Loss</b>                                | <b>(20,830,936)</b> | <b>(22,758,230)</b> | <b>(1,927,295)</b> | <b>9.3%</b>  |

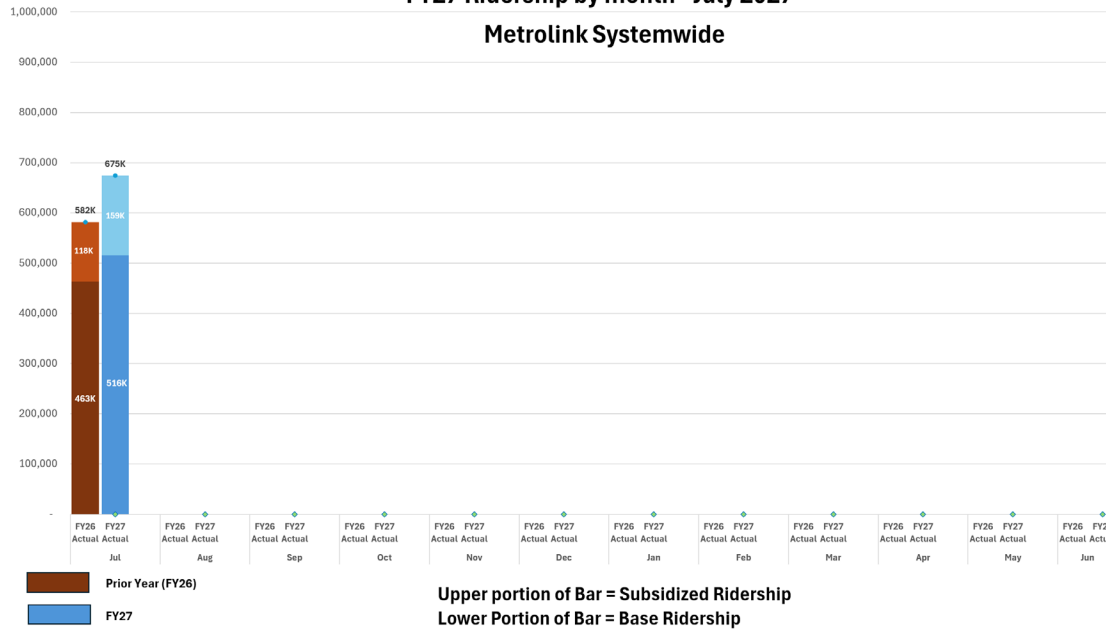


| <b>ARROW SERVICE</b><br><b>SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY</b><br><b>PRELIMINARY OPERATING STATEMENT</b><br><b>FOR THE ONE MONTH ENDING JULY 31, 2026</b> |                      |                      |                                 |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|---------------------------------|-----------------|
|                                                                                                                                                                       | <b><u>FY26</u></b>   | <b><u>FY27</u></b>   | <b><u>VARIANCE FROM</u></b>     |                 |
|                                                                                                                                                                       | <b><u>ACTUAL</u></b> | <b><u>ACTUAL</u></b> | <b><u>PRIOR YEAR ACTUAL</u></b> |                 |
|                                                                                                                                                                       |                      |                      | <b><u>AMOUNT</u></b>            | <b><u>%</u></b> |
| <b>Operation Revenue</b>                                                                                                                                              |                      |                      |                                 |                 |
| Farebox Revenue                                                                                                                                                       | 18,570               | 20,042               | 1,473                           | 7.9%            |
| Mobility 4 All                                                                                                                                                        | 341                  | 732                  | 391                             | 114.7%          |
| Student Youth Discount Grant                                                                                                                                          | 1,414                | 2,930                | 1,516                           | 107.2%          |
| <b>Subtotal Fare Revenues</b>                                                                                                                                         | <b>20,324</b>        | <b>23,705</b>        | <b>3,380</b>                    | <b>16.6%</b>    |
| MOW Revenues                                                                                                                                                          | 20,520               | 22,015               | 1,495                           | 7.3%            |
| <b>Total Operating Revenues</b>                                                                                                                                       | <b>40,845</b>        | <b>45,720</b>        | <b>4,875</b>                    | <b>11.9%</b>    |
| <b>Operating Expenses</b>                                                                                                                                             |                      |                      |                                 |                 |
| <b><u>Operations &amp; Services</u></b>                                                                                                                               |                      |                      |                                 |                 |
| Train Operators                                                                                                                                                       | 345,658              | 281,075              | (64,583)                        | (18.7%)         |
| Train Dispatch Fee                                                                                                                                                    | 11,539               | 11,539               | 0                               | 0.0%            |
| Equipment Maintenance                                                                                                                                                 | 320,025              | 340,736              | 20,711                          | 6.5%            |
| Materials                                                                                                                                                             | 28,854               | 30,308               | 1,455                           | 5.0%            |
| Fuel                                                                                                                                                                  | 34,472               | 38,544               | 4,072                           | 11.8%           |
| Operating Facilities Maintenance                                                                                                                                      | 27,316               | 28,842               | 1,527                           | 5.6%            |
| Other Operating Train Services                                                                                                                                        | 0                    | 0                    | 0                               | 0               |
| Security - LA Sheriffs                                                                                                                                                | 0                    | 0                    | 0                               | 0               |
| Security - SB Sheriffs                                                                                                                                                | 229,672              | 217,844              | (11,828)                        | (5.1%)          |
| Security - Guards                                                                                                                                                     | 23,000               | 24,840               | 1,840                           | 8.0%            |
| Public Safety Program                                                                                                                                                 | 0                    | 0                    | 0                               | 0               |
| Passenger Relations                                                                                                                                                   | 2,862                | 1,000                | (1,862)                         | (65.1%)         |
| TVM Maint/Revenue Collection                                                                                                                                          | 8,639                | 8,713                | 74                              | 0.9%            |
| Marketing                                                                                                                                                             | 0                    | 0                    | 0                               | 0               |
| Media & External Communications                                                                                                                                       | 0                    | 0                    | 0                               | 0               |
| Utilities / Leases                                                                                                                                                    | 9,118                | 33,611               | 24,493                          | 268.6%          |
| Transfers to Other Operators                                                                                                                                          | 739                  | 698                  | (40)                            | (5.5%)          |
| Mobilization Arrow                                                                                                                                                    | 0                    | 0                    | 0                               | 0               |
| <b>Subtotal Operations &amp; Services</b>                                                                                                                             | <b>1,041,893</b>     | <b>1,017,751</b>     | <b>(24,142)</b>                 | <b>(2.3%)</b>   |
| <b><u>Maintenance-of-Way</u></b>                                                                                                                                      |                      |                      |                                 |                 |
| <b>Maintenance-of-Way Fee</b>                                                                                                                                         | <b>145,196</b>       | <b>145,096</b>       | <b>(100)</b>                    | <b>(0.1%)</b>   |
| <b><u>Administration &amp; Services</u></b>                                                                                                                           |                      |                      |                                 |                 |
| Ops Salaries & Benefits                                                                                                                                               | 28,952               | 31,674               | 2,721                           | 9.4%            |
| Ops Non-Labor Expenses                                                                                                                                                | 14,891               | 14,724               | (167)                           | (1.1%)          |
| Indirect Administrative Expenses                                                                                                                                      | 16,473               | 70,658               | 54,185                          | 328.9%          |
| Ops Professional Services                                                                                                                                             | 3,922                | 0                    | (3,922)                         | (100.0%)        |
| <b>Subtotal Administration &amp; Services</b>                                                                                                                         | <b>64,238</b>        | <b>117,055</b>       | <b>52,817</b>                   | <b>82.2%</b>    |
| <b><u>Insurance Expense (Recoveries)</u></b>                                                                                                                          |                      |                      |                                 |                 |
| Liability/Property/Auto/Misc                                                                                                                                          | 8,705                | 7,870                | (835)                           | (9.6%)          |
| Net Claims / SI                                                                                                                                                       | 0                    | 0                    | 0                               | 0               |
| Claims Administration                                                                                                                                                 | 0                    | 0                    | 0                               | 0               |
| <b>Subtotal Insurance Expense (Recoveries)</b>                                                                                                                        | <b>8,705</b>         | <b>7,870</b>         | <b>(835)</b>                    | <b>(9.6%)</b>   |
| <b>Ordinary Operating Expense</b>                                                                                                                                     | <b>1,260,033</b>     | <b>1,287,772</b>     | <b>27,739</b>                   | <b>2.2%</b>     |
|                                                                                                                                                                       |                      |                      | <b>0</b>                        | <b>0</b>        |
| <b>Total Expenses</b>                                                                                                                                                 | <b>1,260,033</b>     | <b>1,287,772</b>     | <b>27,739</b>                   | <b>2.2%</b>     |
| <b>Net Loss</b>                                                                                                                                                       | <b>(1,219,188)</b>   | <b>(1,242,052)</b>   | <b>(22,864)</b>                 | <b>1.9%</b>     |

# Ridership by Line by Month as of July 2026

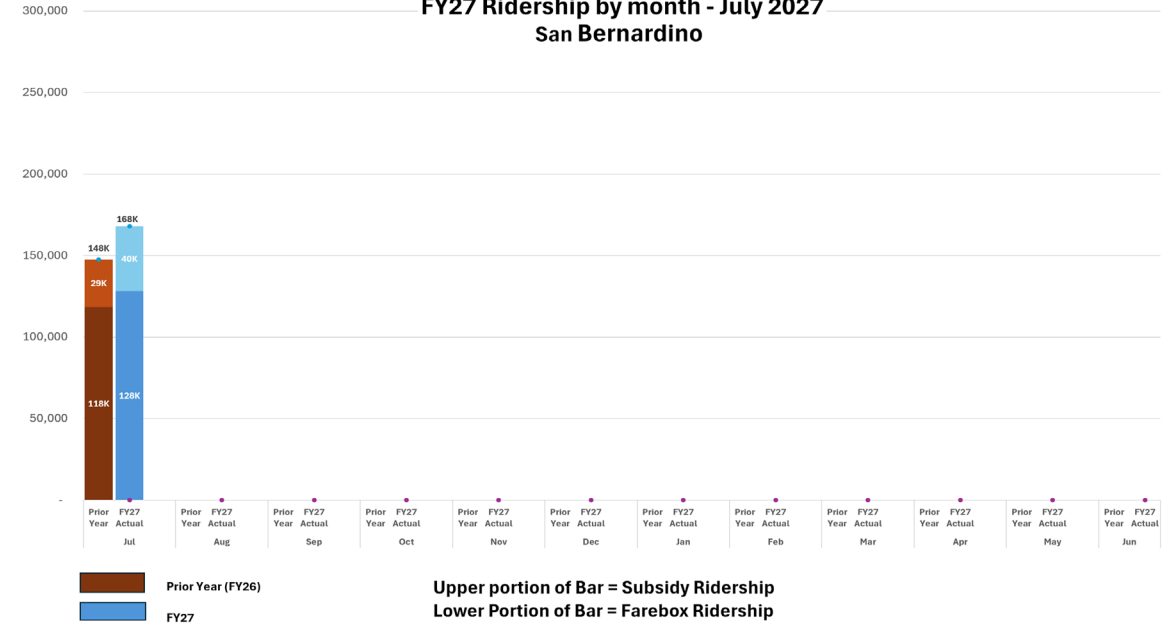
## FY27 Ridership by month - July 2027

Metrolink Systemwide



## FY27 Ridership by month - July 2027

San Bernardino



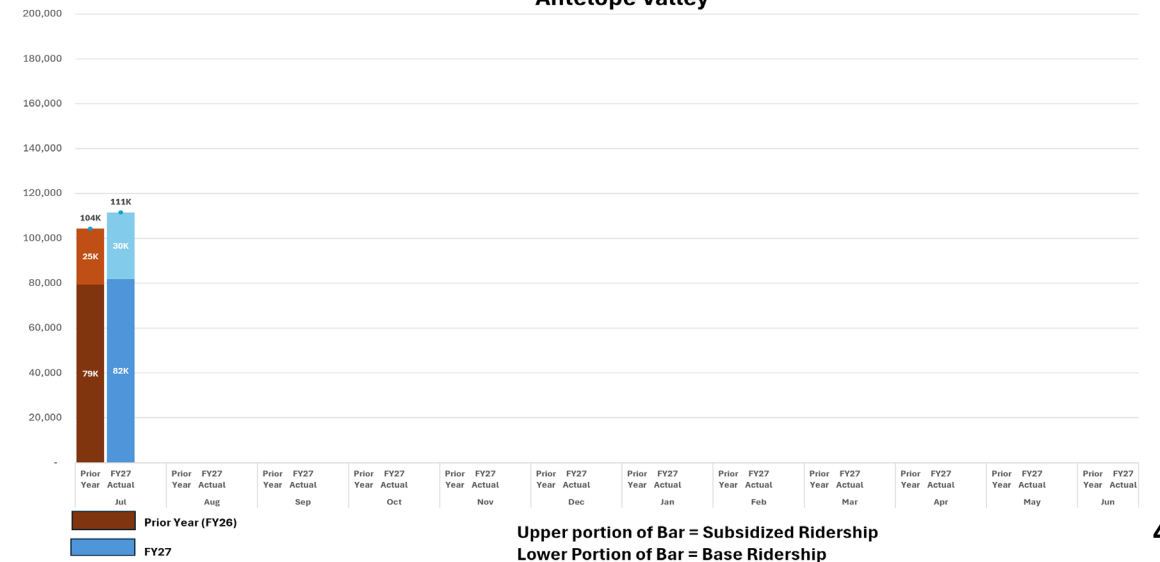
## FY27 Ridership by month - July 2027

Ventura



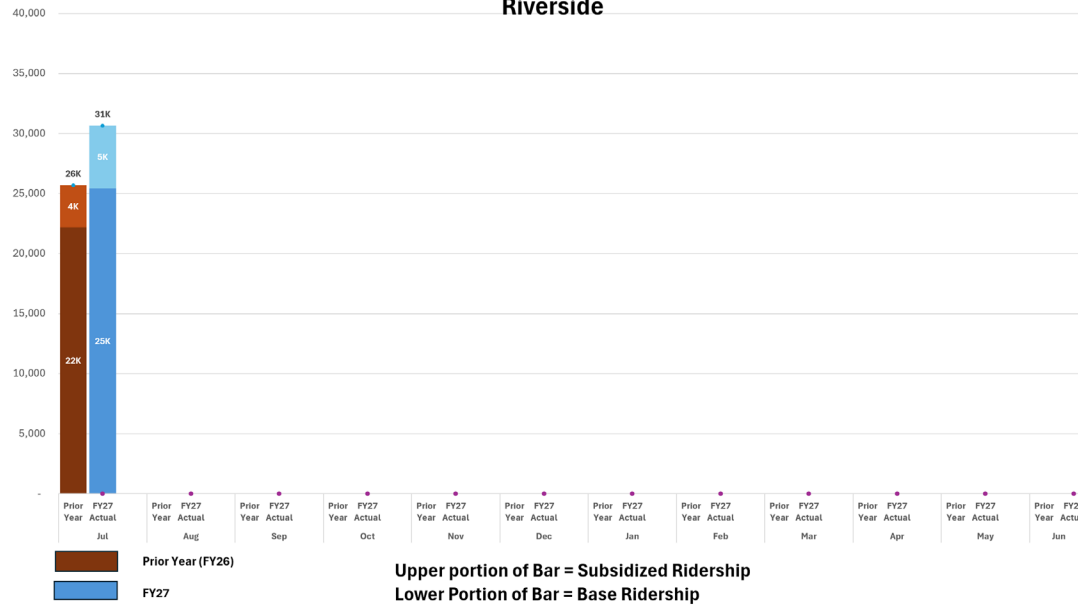
## FY27 Ridership by month - July 2027

Antelope Valley

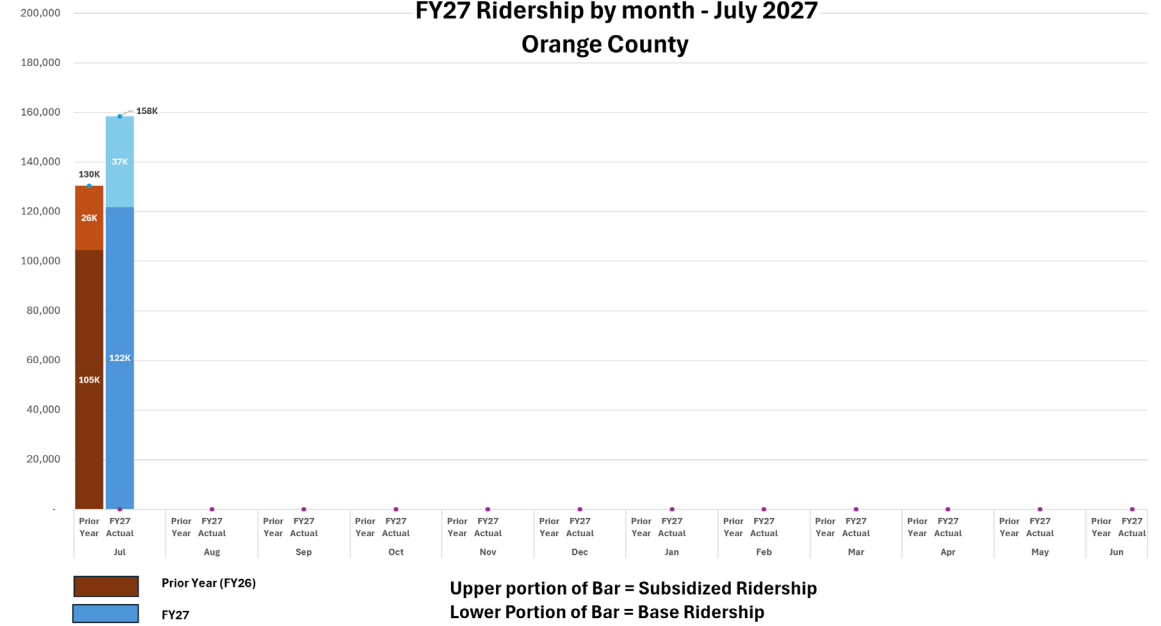


# Ridership by Line by Month as of July 2026

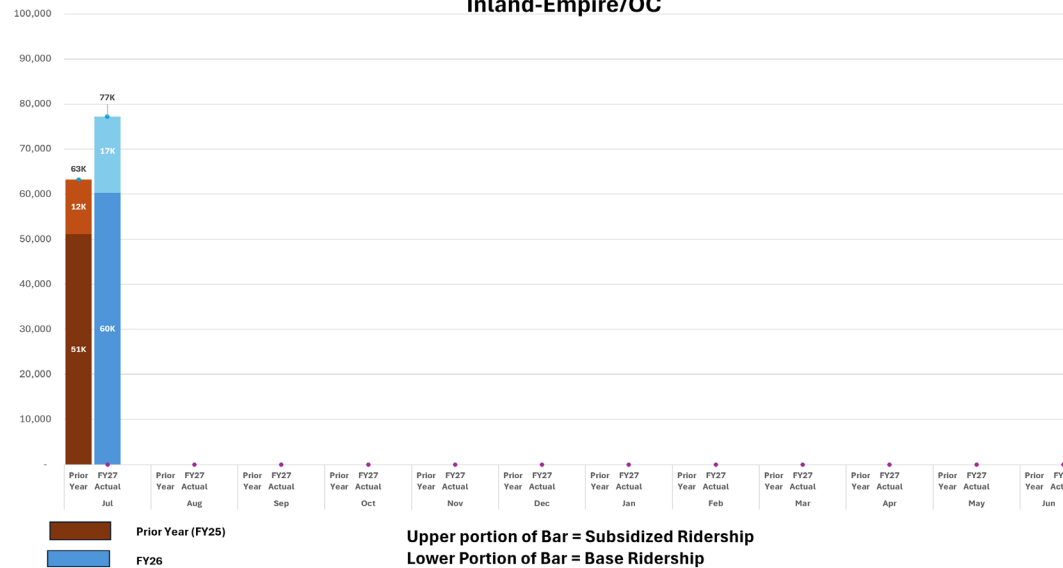
FY27 Ridership by month - July 2027  
Riverside



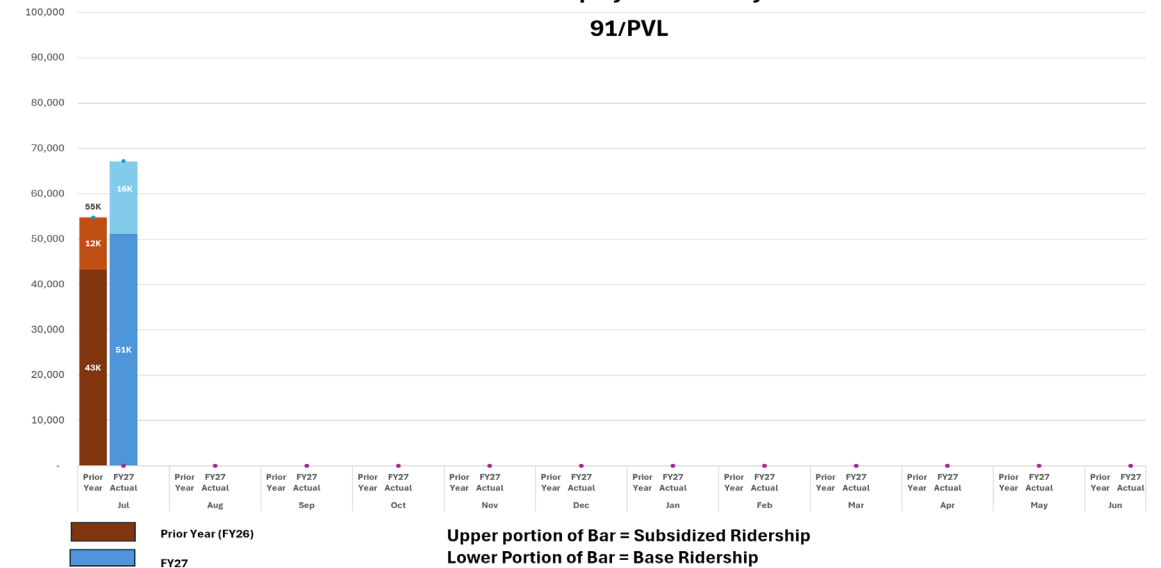
FY27 Ridership by month - July 2027  
Orange County



FY27 Ridership by month - July 2027  
Inland-Empire/OC



FY27 Ridership by month - July 2027  
91/PVL



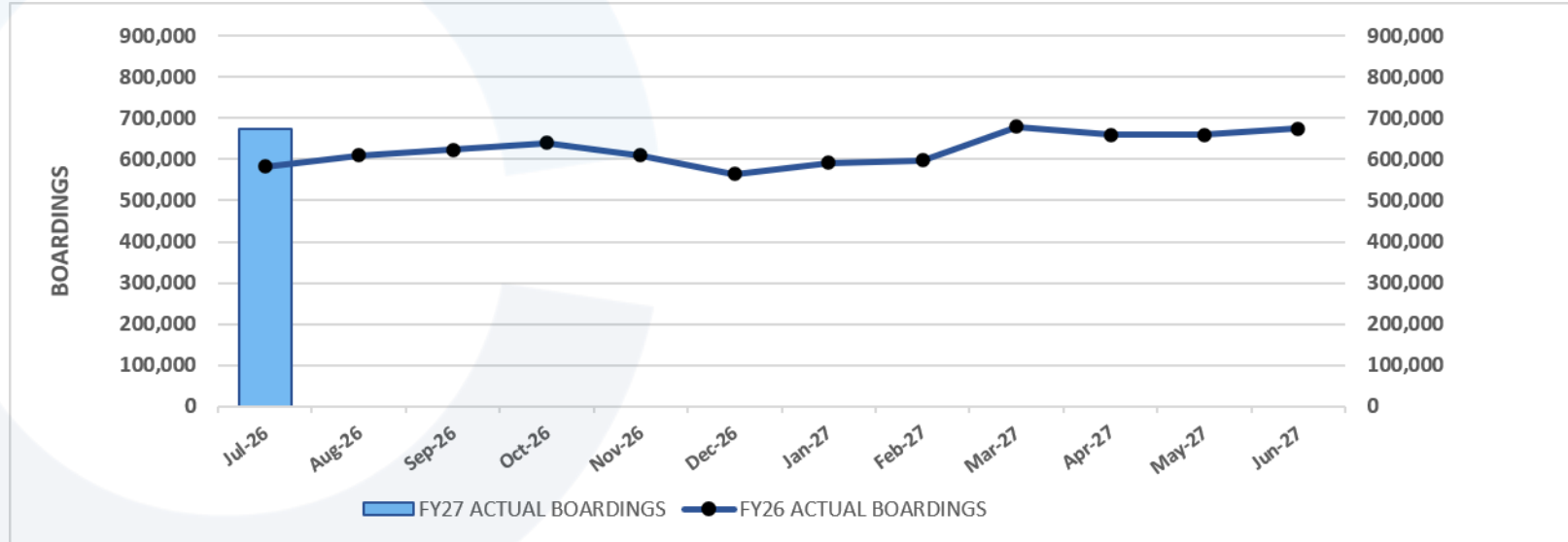


**METROLINK**

**July 2026 – Financial Results**

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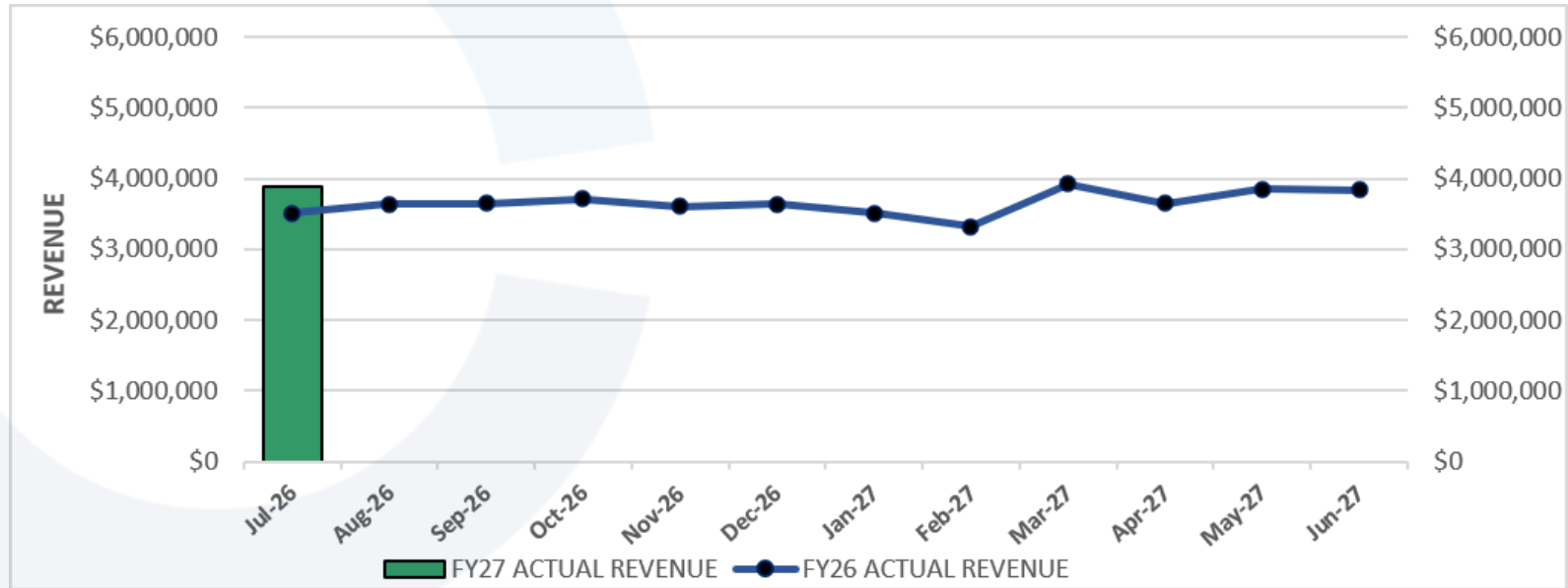
## Systemwide FY27 Actual & Comparison to Prior Year Ridership (base & subsidized)



| PERIOD              | FY26      | FY27             | INCREASE/ (DECREASE) |         |
|---------------------|-----------|------------------|----------------------|---------|
|                     | BOARDINGS | ACTUAL BOARDINGS | NUMBER               | %       |
| JULY                | 581,688   | 674,642          | 92,954               | 16.0%   |
| Fiscal Year to Date | 581,688   | 674,642          | 92,954               | 674,642 |



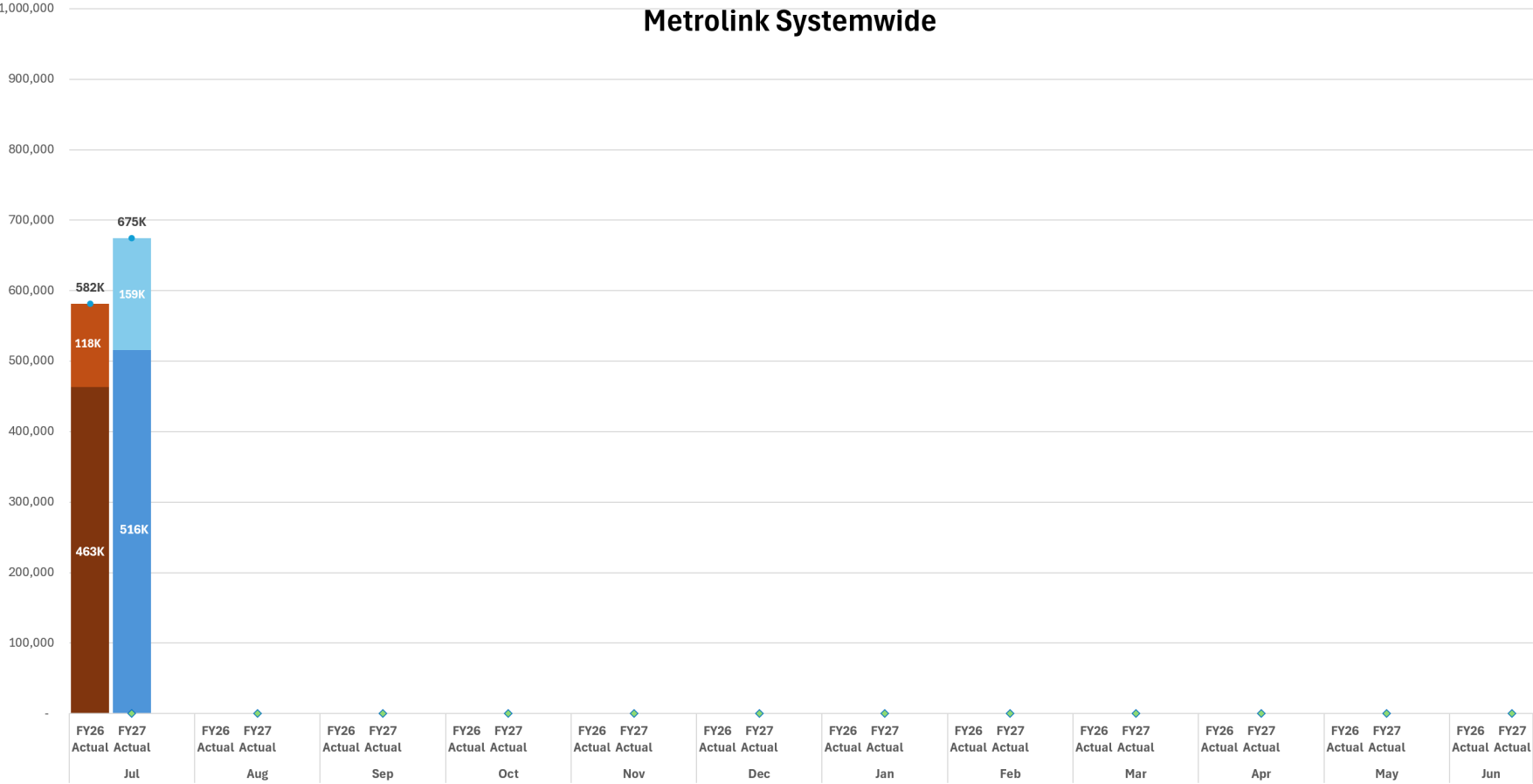
## Systemwide FY27 Actual & Comparison to Prior Year Revenue (base & subsidized)



| PERIOD              | FY26 REVENUE | FY27 ACTUAL<br>REVENUE | INCREASE/ (DECREASE)<br>FROM FY26 |       |
|---------------------|--------------|------------------------|-----------------------------------|-------|
|                     |              |                        | \$                                | %     |
| JULY                | 3,515,246    | 3,886,867              | 371,621                           | 10.6% |
| Fiscal Year to Date | \$ 3,515,246 | \$ 3,886,867           | \$ 371,621                        | 10.6% |

# FY27 Ridership by month - July 2027

## Metrolink Systemwide

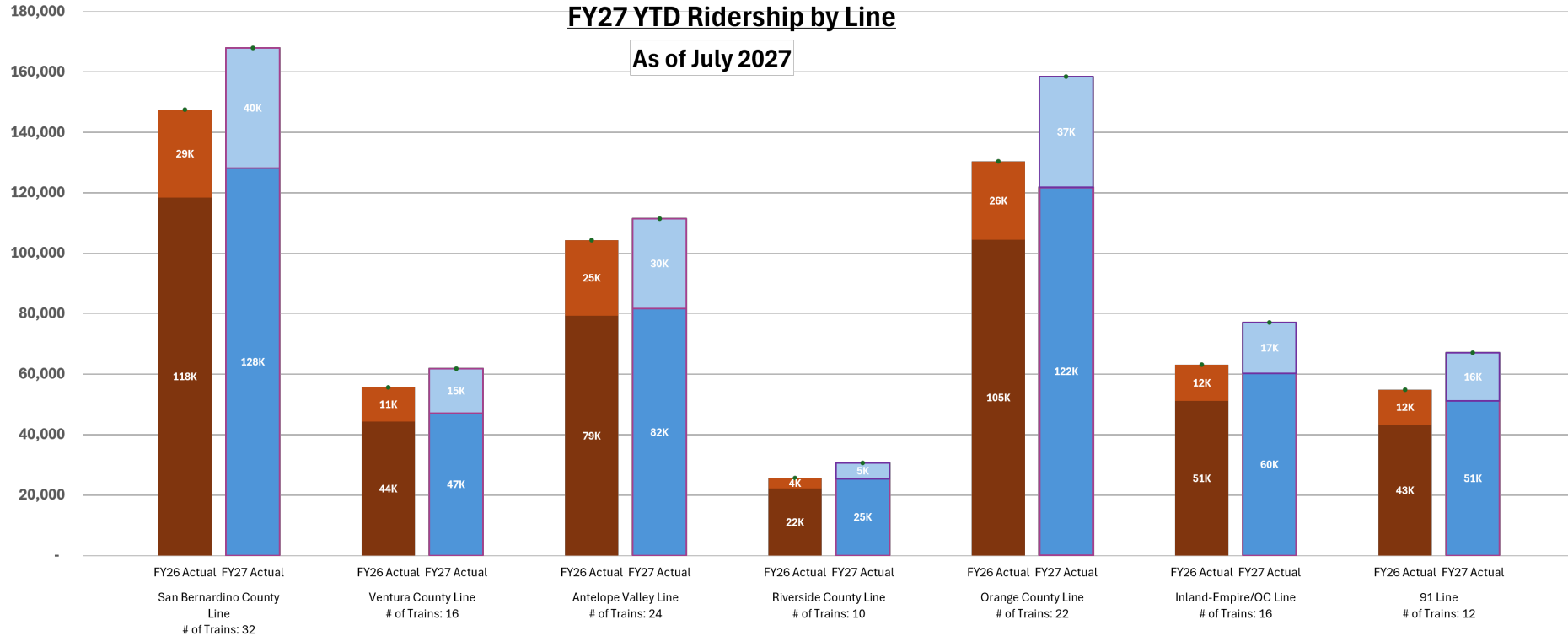


**Prior Year (FY26)**

**FY27**

**Upper portion of Bar = Subsidized Ridership**

**Lower Portion of Bar = Base Ridership**

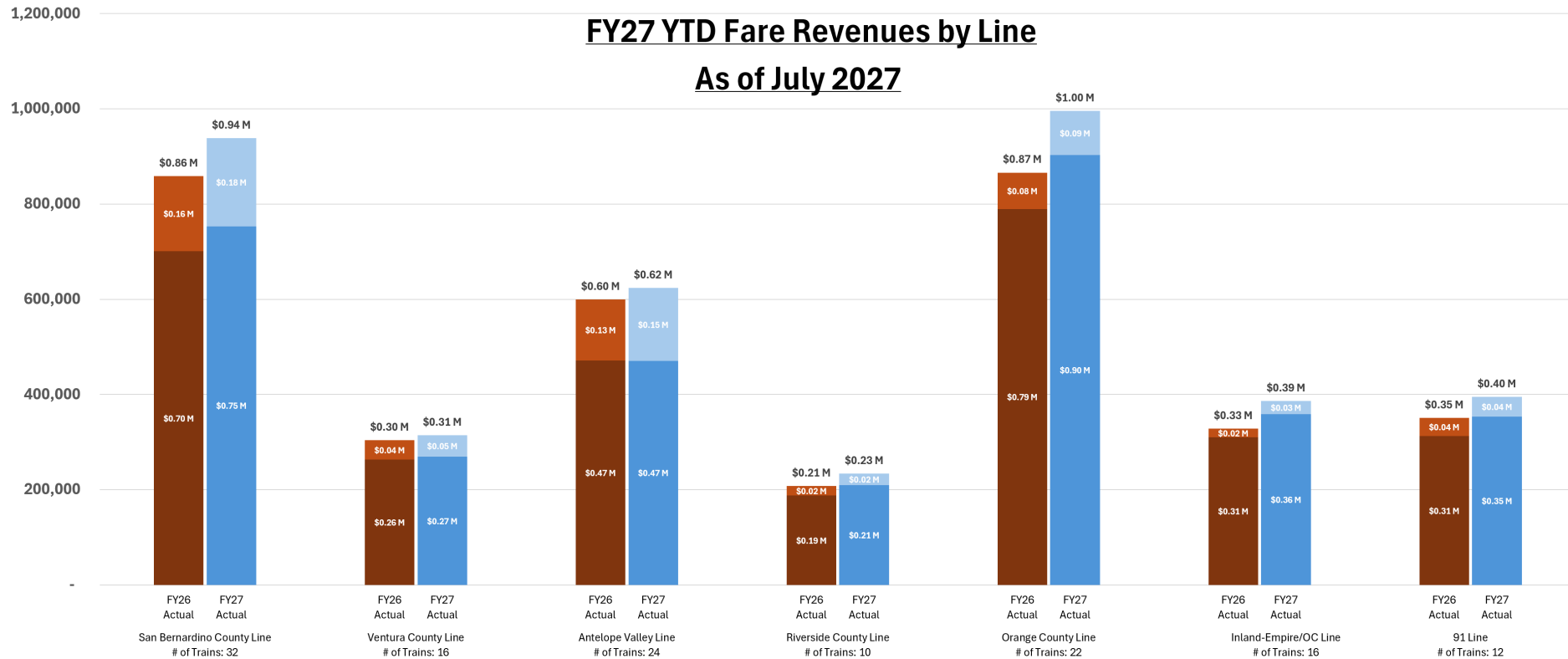


Upper portion of Bar = Subsidized Ridership  
 Lower Portion of Bar = Base Ridership

**FY27 Systemwide Fare Revenues**  
**As of July 2027**



**Upper portion of Bar = Subsidized Revenue**  
**Lower Portion of Bar = Base Revenue**



Upper Portation of Bar = Subsidized Revenue  
Lower Portion of Bar = Base Revenue





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# Financial Results for July 2026

- **Total Operating Revenue is \$5.6M, over FY26 actual by \$63K or 1.1%**
- **Total Expenses are \$28.3M, over FY26 actual by \$2.0M or 7.6%**
- **Overall net loss is currently \$22.8M, over FY26 actual by \$1.9M or 9.3%**

## **Major Categories compared to FY26 actuals:**

- Indirect Admin over by \$549K
- Train Operators over by \$551K
- Insurance/Legal over by \$201K
- Fuel over by \$149K
- MOW-Line Segments over by \$216K
- Marketing under by \$253K
- S.B. Sheriffs over by \$273K
- Operation Non-Labor under by \$314K
- Outside 20' over by \$220K
- Ops Professional Services under by \$113K

## **Note:**

Some of these expenses include accruals.

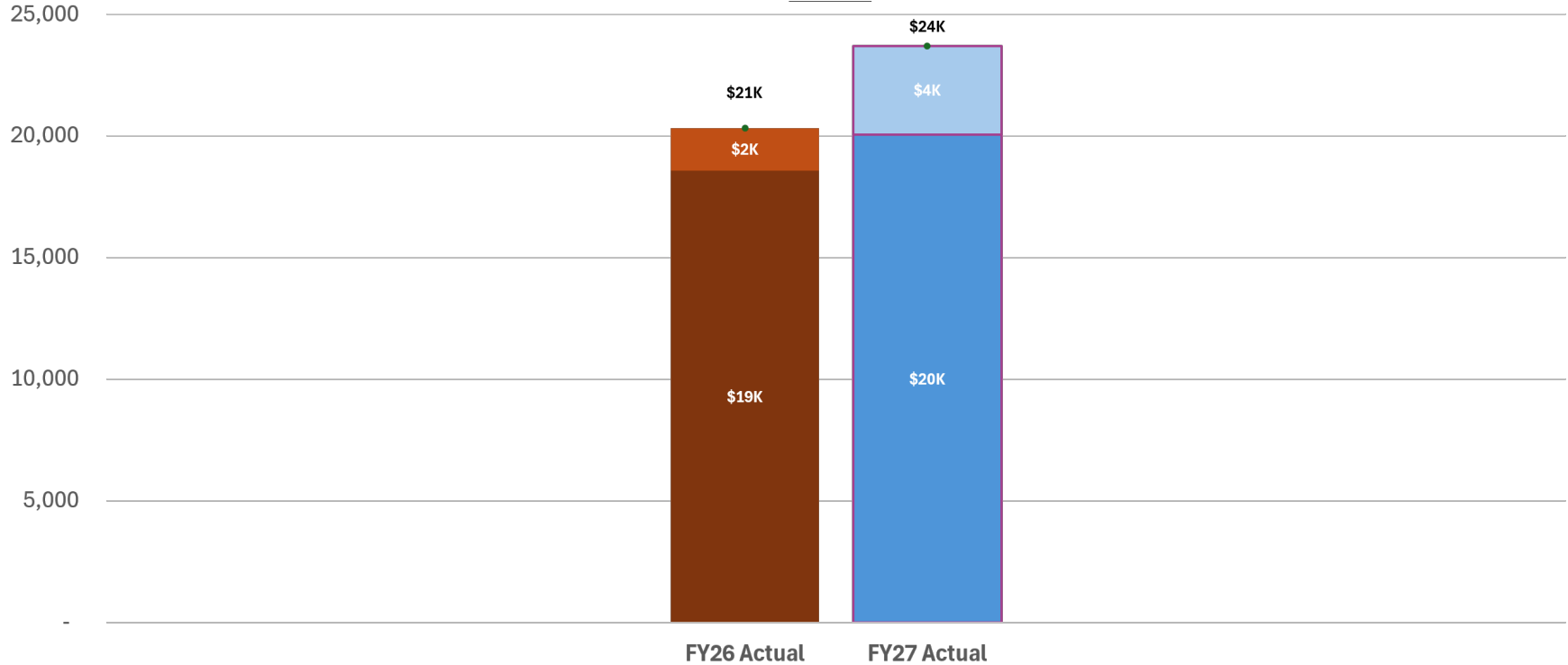
# Arrow Service



METROLINK

## FY27 Fare Revenues - YTD July 2027

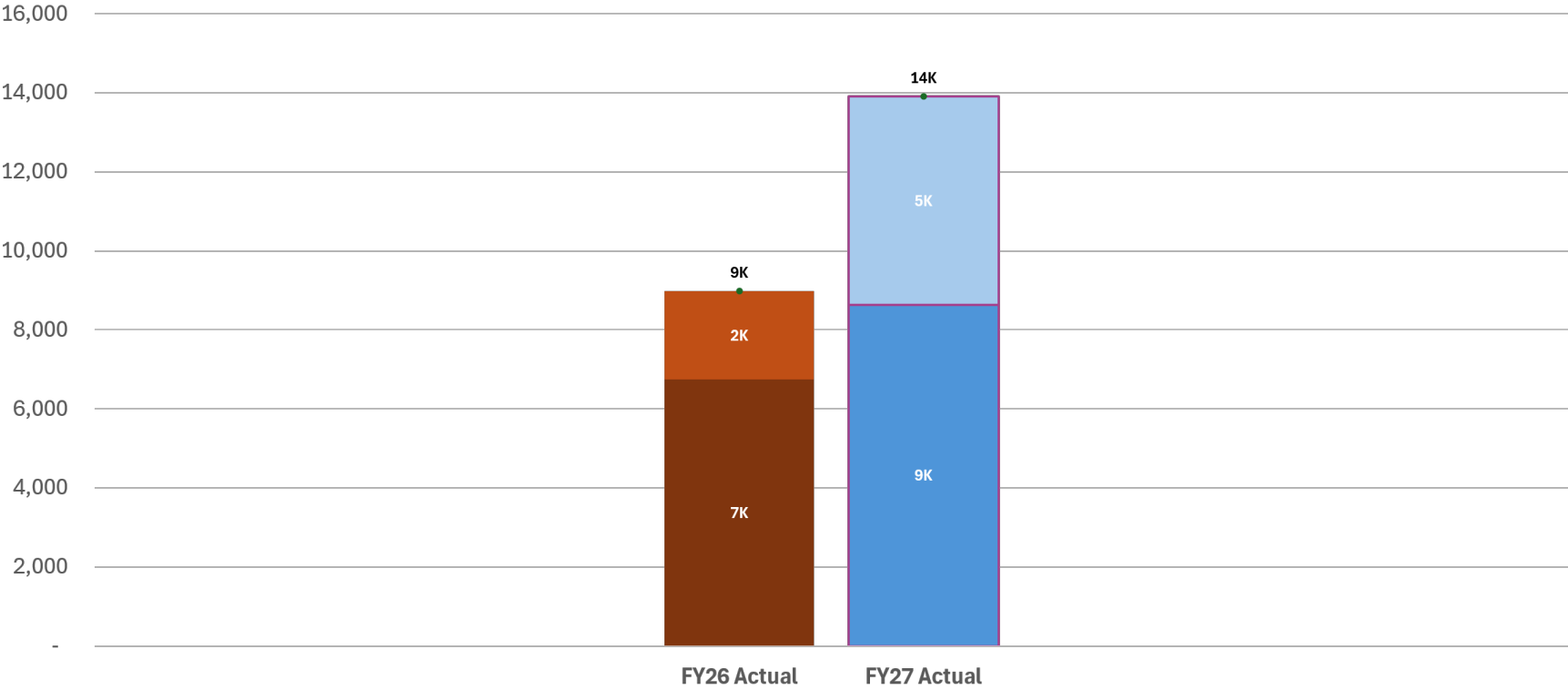
Arrow



**Upper portion of Bar = Subsidy Revenue**

**Lower Portion of Bar = Farebox Revenue**

**FY27 Ridership - YTD July 2027**  
**Arrow**



**Upper portion of Bar = Subsidized Ridership**  
**Lower Portion of Bar = Base Ridership**

## FY26 Arrow Service Financial Results

### Financial Results for YTD July 2026

**Operating Revenue** is \$46K, over FY26 actuals by \$5K or 11.9%

**Total Expenses** are \$1.3M, over FY26 actuals by \$28K or 2.2%

**Support** is \$1.2M, over FY26 actuals by \$23K or 1.9%





**METROLINK**

Thank you.