



File #: 2025-0943, File Type: Contract

Agenda Number: 39.

OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE JANUARY 15, 2026

**SUBJECT: P2000, P2550 LIGHT RAIL VEHICLE and HR4000 HEAVY RAIL VEHICLE
INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS)**

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

EXECUTE Contract Modification No. 6, to Contract No. TS83056-2000, a firm fixed fee contract with Siemens Mobility, Inc. to exercise Options 2, 3 & 4 for installation and commissioning of the Integrated Data and Communication System (IDCS) on P2000, P2550 Light Rail Vehicles, and HR4000 Heavy Rail Vehicles, increasing the Not-To-Exceed (NTE) amount by \$15,608,842 from \$23,319,884 to \$38,928,726. This action does not change the Board-approved Life-of-Project (LOP) for this project of \$44,436,129.

ISSUE

The IDCS will provide real-time access to information and video on the train, reducing operations and maintenance response and diagnostics time. Further, the IDCS will improve real-time arrival predictions by tracking the vehicle location using the Global Positioning System (GPS) and calculating the vehicle location when GPS is unavailable, such as in tunnels. The system will also allow for more automatic retrieval of historical maintenance data and CCTV video. In addition, the IDCS provides live viewing of the CCTV system, enabling security personnel to respond faster to incidents. Finally, this System will employ the latest cybersecurity technology to prevent disruption from external and internal threats while providing our passengers with Wi-Fi access.

BACKGROUND

Option 2 (P2000 Light Rail Vehicles), Option 3 (P2550 Light Rail Vehicles), and Option 4 (HR4000 Heavy Rail Vehicles) are the last three of four Options under this Contract. The project was initially divided into Options for each fleet type to facilitate phased budgeting and implementation. The sequence of the Options was determined based on multiple factors. The A650 was selected as the Base Contract because it was considered a higher priority due to the need for improved location tracking in the tunnels. The P3010 was selected as the first option because it is the largest and fully available fleet. The P2000 and P2550 were selected as Option 2 and Option 3, respectively, because they are undergoing modernization. The HR4000 was selected as Option 4 because the vehicles are still in production and acceptance stages. Fifteen of the seventeen milestones have been completed

for the A650 base contract. Production for the A650 base contract was completed in March 2025, except for 7 married pairs that are currently undergoing refurbishment/modernization. Production for the P3010 Option 1 is complete, with 235 of 235 cars complete. The base and Option 1 contracts account for over 60% of the fleet and have been executed without issue. Due to the success and performance of the IDCS and Contractor on the base and Option 1 contracts, the Project recommends exercising the three remaining options at one time to more efficiently complete the project.

DISCUSSION

Metro is seeking to acquire the IDCS to provide rail connectivity and real-time access to information on the train, which will reduce operations, maintenance, and security response and diagnostics time through the following:

- Train arrival prediction information
- Maintenance response times to vehicle health monitoring
- Security and safety response times, as well as evidence collection

The IDCS is comprised of the physical device onboard (e.g., hardware) and the data management system (e.g., software). The onboard device will monitor the train's equipment to retrieve and store data on the Contractor's cloud-based server, but will not be able to control any other onboard system.

The IDCS will improve real-time arrival predictions by tracking the vehicle locations using the Global Positioning System (GPS) and calculating the vehicle locations when GPS is unavailable (e.g., tunnels). Additionally, the IDCS will enable remote, live viewing of the CCTV system, enabling security personnel to respond more quickly to incidents. The IDCS data will also be accessible via a secure web portal interface.

Lastly, the IDCS will employ the latest cybersecurity technology to prevent disruption from external and internal threats while providing our passengers with Wi-Fi. Metro trains do not currently have free public Wi-Fi, and having this access is an amenity that many customers expect whenever they occupy a building or vehicle.

Due to the successful implementation, testing, and results on the A650 Base Contract and P3010 Option 1, the IDCS Project team is confident in proceeding with options 2, 3, & 4 on the P2000, P2550 & HR4000 fleet.

DETERMINATION OF SAFETY IMPACT

The approval of exercising Options 2,3 & 4 to the Contract for the P2000, P2550 & HR4000 fleet will enhance system safety, service quality, system reliability, maintainability, and overall customer satisfaction. The IDCS project will permit Metro to embrace technological enhancements to improve maintenance capabilities, train arrival prediction algorithms, and provide access to real-time CCTV video.

FINANCIAL IMPACT

The LOP for project 214004 includes funds for the IDCS equipment/installation, software services for one year, spare parts, workforce labor, and contingency reserves, totaling \$44,436,129. Currently, \$4,500,000 is budgeted in the FY26 budget in Cost Center 3940 under CP-214004, IDCS project. Since this is a multi-year contract, the cost center manager will be responsible for dispersing the cost for subsequent years.

Impact to Budget

The current source of funds for this action is TDA Article 4. This funding is eligible for Capital and Operating Projects. Staff is also pursuing additional Federal, State, and Local funding sources as they become available.

EQUITY PLATFORM

This procurement maintains the availability of all the Rail Fleets in LA Metro, including those servicing Equity Focus Communities. Approval of Options 2,3 & 4 for the P2000, P2550 & HR4000 fleet ensures that all customers on Metro's light rail lines and heavy rail lines can access up-to-date technology. Additionally, this procurement supports Metro's revised Code of Conduct, a Bias-Free Policing Policy, and a Public Safety Analytics Policy by providing enhanced access to vehicle CCTV systems.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

As part of these ongoing efforts, this item is expected to contribute to further reductions in VMT. This item supports Metro's systemwide strategy to reduce VMT through these rail vehicle equipment purchase activities that will improve rail safety, reliability, and customer experience, further encouraging transit ridership. Metro's Board-adopted VMT reduction targets were designed to build on the success of existing investments, and this item aligns with those objectives.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Metro's Strategic Plan Goal 5) Provide responsive, accountable, and trustworthy governance within the Metro organization. The completion and rollout of the IDCS project will provide state-of-the-art assets that will provide train location, passenger WIFI, real-time CCTV

viewing, and vehicle health monitoring for all Metro trains.

ALTERNATIVES CONSIDERED

Staff considered using in-house Metro resources to perform this work. This approach is not recommended as Metro does not have sufficient resources and subject matter experts available to perform this work.

The Board may choose not to authorize the Options award for this project; however, this alternative is not recommended by Metro staff because this IDCS project is new to all the rail fleets in Metro. Delay in exercising the Options will cause a delay in providing these improved services to the remaining Metro rail fleets.

NEXT STEPS

Upon Board approval, the Integrated Data and Communication System (IDCS) Options 2,3, & 4 for the P2000, P2550 LRV Fleet and HR4000 HRV Fleet will move forward.

ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - Contract Modification Log

Attachment C - DEOD Summary

Prepared by: Chandrani Kahanda, Senior Engineer, Transit Vehicle Engineering (213)-617 6221

Aaron Disman, Senior Director, Transit Vehicle Engineering (213) 617-6280

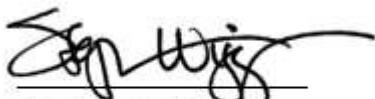
Bob Spadafora, Senior Executive Officer, Rail Fleet Services (213) 922-3144

Nick Madanat, Deputy Executive Officer, Transit Vehicle Engineering, (213) 617.6281

Matt Dake, Deputy Chief Operations Officer, (213) 922-4061

Debra Avila, Deputy Chief, Vendor/Contract Management Officer, (213) 418-3051

Reviewed by: Conan Cheung, Chief Operations Officer, (213) 418-3034



Stephanie Wiggins
Chief Executive Officer

ATTACHMENT A

PROCUREMENT SUMMARY

P2000, P2550 LIGHT RAIL VEHICLE AND HR4000 HEAVY RAIL VEHICLE INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS)

| | | | |
|---|--|---|-------------------|
| 1. | Contract Number: TS83056-2000 | | |
| 2. | Contractor: Siemens Mobility, Inc. | | |
| 3. | Mod. Work Description: Exercise Option 2, 3 and 4 authorizing the Contractor to install, integrate, commission and test the Integrated Data and Communications System (IDCS) for P2000, P2550 and HR4000 rail vehicles. | | |
| 4. | Contract Work Description: Implementation of the Integrated Data and Communications System (IDCS) to provide fleet monitoring and real-time access to the information on the train. The Contractor shall be responsible for design, manufacturing, installation, integration, testing and commissioning of the monitoring system. | | |
| The following data is current as of November 25, 2025: | | | |
| 6. | Contract Completion Status | Financial Status | |
| | Contract Awarded: November 7, 2023 | Contract Award Amount: | Base: \$5,043,855 |
| | Notice to Proceed (NTP): December 6, 2023 | Total of Modifications Approved: | \$18,276,029 |
| | Original Complete Date: September 29, 2028 | Pending Modifications (including this action): | \$15,608,842 |
| | Current Est. Complete Date: September 29, 2028 | Current Contract Value (with this action): | \$38,928,726 |
| 7. | Contract Administrator: Aniza Wan Nawang | Telephone Number: 213-922-4677 | |
| 8. | Project Manager: Bob Spadafora | Telephone Number: 213-922-3144 | |

A. Procurement Background

This Board Action is to approve Contract Modification No. 6 to exercise Option No. 2, 3 and 4 for the design, manufacturing, installation, integration, testing and commissioning of the Integrated Data and Communication System (IDCS) for P2000, P2550 Light Rail Vehicle and HR4000 Heavy Rail Vehicle fleet for a firm-fixed-price of \$4,415,668, \$4,775,826, and \$6,417,348 respectively, increasing the total contract value by \$15,608,842 from \$23,319,884 to \$38,928,726. The firm-fixed-price amount for Option 1

to 4 was competitively solicited during the procurement phase of the Base Contract Award.

This Contract Modification will be processed in accordance with Metro's Acquisition Policy. The Contract with Siemens Mobility, Inc. (Siemens) was approved by the Board of Directors on October 19, 2023 under Agenda Number 32, and exercise of Option 1 for P3010 LRV fleet was approved on September 19, 2024 under Agenda Number 24.

B. Cost/Price Analysis

A market survey was conducted among the planholders to assess the viability of exercising these options, however, no responses were received. Quester Tangent, who proposed on the solicitation, provided a solution but it was priced higher than Siemens'.

At present, Metro has exercised Option 1 for the installation of the IDCS on P3010 fleet, which is Metro's largest rail fleet with 235 railcars. Pursuing a partial solution through separate procurement of these options would introduce risks relating to operational inefficiency, system integration, cost and long-term maintenance. By continuing with the existing vendor, it ensures a unified and compatible system that would support streamlined maintenance and data security. Therefore, based on these reasons, it is determined that it is in Metro's best interest to exercise the Options with Siemens.

| | Proposer Name | BAFO III Option No. 2 (P2000) Proposal Amount | Metro ICE for Option No. 2 |
|----|----------------------|--|-----------------------------------|
| 1. | Siemens Mobility | \$4,415,668 | \$4,787,895 |
| 2. | Quester Tangent | \$29,458,008 | \$4,787,895 |

| | Proposer Name | BAFO III Option No. 3 (P2550) Proposal Amount | Metro ICE for Option No. 3 |
|----|----------------------|--|-----------------------------------|
| 3. | Siemens Mobility | \$4,775,826 | \$4,290,175 |
| 4. | Quester Tangent | \$24,574,264 | \$4,290,175 |

| | Proposer Name | BAFO III Option No. 4 (HR4000) Proposal Amount | Metro ICE for Option No. 4 |
|----|----------------------|---|-----------------------------------|
| 5. | Siemens Mobility | \$6,417,348 | \$4,801,592 |
| 6. | Quester Tangent | \$22,154,480 | \$4,801,592 |

The price differences for Option 3 (11.3% higher than the ICE) and Option 4 (33.6% higher than the ICE) against the ICE are attributed to the factors below:

1. The total cost of designing, manufacturing and supplying the hardware equipment and software system including inflation - ICE understated the current market pricing and risk allowances due to price volatility.
2. The labor cost for installation, integration and commissioning was underestimated and did not accurately reflect the integration expertise and the time needed for testing, documentation and stakeholder coordination, including training.
3. The cost of data management and software service as a service (SaaS) were also underestimated in the ICE.

C. Background on Recommended Contractor

Siemens Mobility Inc. is a subsidiary of Siemens AG and has established North America's only permanent design, manufacturing, test and service facility for light rail vehicles, locomotives, and coaches specifically to guide our customers over the 30+ year design life of modern rail vehicles. Siemens Mobility is headquartered in McClellan Park, California. The McClellan Park Facility houses a full vehicle service center which provides services such as accident repair, high and low voltage repairs, overhaul, and refurbishment, as well as a dedicated Bogie Service Center which specializes in bogie overhauls, repairs, and upgrades. Siemens Mobility employs more than 140 engineers in the USA, with expertise in maintenance, system integration, and cybersecurity.

CONTRACT MODIFICATION LOG**P2000, P2550 LIGHT RAIL VEHICLE AND HR4000 HEAVY RAIL VEHICLE
INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS)**

| Mod. no. | Description | Status (approved or pending) | Date | Amount |
|----------|---|------------------------------|----------|---------------------|
| 1 | Add new Article 0 (Signature) and revise payment milestone schedule | Approved | 06-20-24 | \$0 |
| 2 | Exercise Option 1 – P3010 | Approved | 10-17-24 | \$18,051,025 |
| 3 | Reconfiguration of network switch | Approved | 06-05-25 | \$50,000 |
| 4 | TS 3.8.5: Upgrade HDD storage from 1 TB to 4TB | Approved | 08-29-25 | \$175,004 |
| 5 | Revision to Milestone Payment 12 for Option 1 - P3010 (Administrative Modification) | Approved | 11-14-25 | \$0 |
| 6 | Exercise Option 2 (P2000), Option 3 (P2550) and Option 4 (HR4000) | Pending | TBA | \$15,608,842 |
| | Modification Total: | | | \$33,884,871 |
| | Original Contract: | | | \$5,043,855 |
| | Total: | | | \$38,928,726 |

DEOD SUMMARY

P2000, P2550 LIGHT RAIL VEHICLE and HR4000 HEAVY RAIL VEHICLE INTEGRATED DATA AND COMMUNICATION SYSTEM (IDCS) / TS83056-2000

A. Small Business Participation

While Siemens Mobility, Inc. (SMI) made an 18% Disadvantaged Business Enterprise (DBE) commitment on this contract, the U.S. Department of Transportation (USDOT) has issued an Interim Final Rule (IFR) that makes changes to the DBE Program. As such, contract goals, enforcement, and counting of participation are suspended effective October 3, 2025.

As such, while the DBE commitment is not a factor in the staff recommendation, there are 3 Metro certified small businesses participating in this contract.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this modification.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

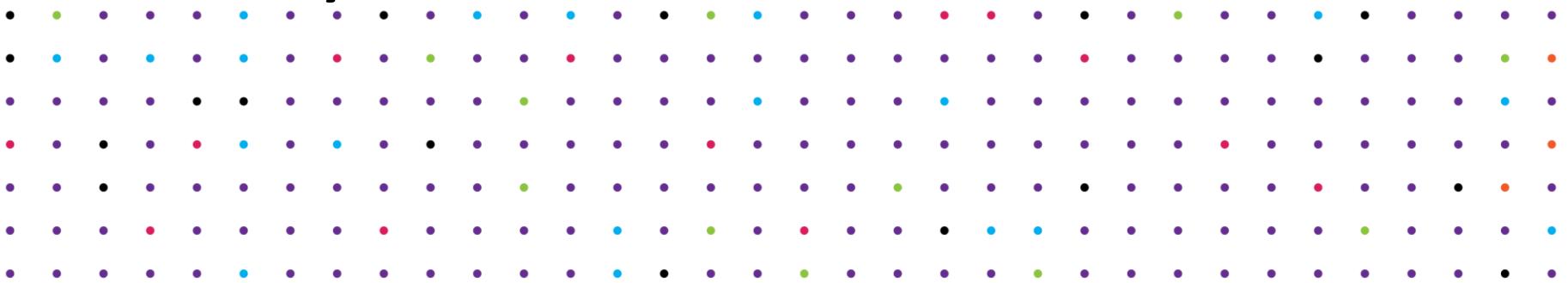
Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction related value in excess of \$2.5 million.

E. Manufacturing Careers Policy

The Manufacturing Careers Policy (MCP) does not apply to this contract. The MCP is required on Metro's Rolling Stock RFPs, with an Independent Cost Estimate of at least \$50 million.

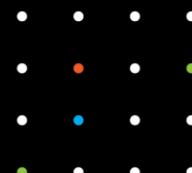
Exercise Option for P2000, P2550, and HR4000 Integrated Data & Communication System (IDCS)

January 2026



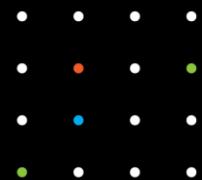
Metro

Operations, Safety, & Customer Experience Committee Meeting



RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute Contract Modification No. 2, and exercise Options 2, 3 & 4 to install and commission the Integrated Data and Communication System (IDCS) on the P2000, P2550 Light Rail Vehicle and HR4000 Heavy Rail Vehicle under Contract No. TS83056-2000 to Siemens Mobility, Inc. in the firm fixed amount of \$15,608,842, increasing the total Contract amount from \$23,094,880 to \$38,703,722. This action does not change the board-approved LOP for this project of \$44,436,129.



ISSUE & DISCUSSION

AWARDEE

Siemens Mobility, Inc.

NUMBER OF BIDS/PROPOSALS

N/A – Exercising of Option

ISSUE

Metro rail vehicles require connectivity to provide access to on-board CCTV systems, vehicle system data, passenger Wi-Fi, and to improve arrival predictions.

DISCUSSION

The IDCS provides real-time access and automatic retrieval of system data and CCTV video, improves arrival predictions, and provides passenger Wi-Fi.