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May 2, 2025

**The Honorable Members of the Board of Supervisors
City and County of San Francisco
1 Dr. Carlton Goodlett Place, Room 244
San Francisco, CA 94102**

Subject: Request for Approval – Contract No. SFMTA-2025-28-LOC: Phase 1 LRV4 Brake System Overhaul with Wabtec Passenger Transit for \$15,527,933

Honorable Members of the Board of Supervisors:

The San Francisco Municipal Transportation Agency (SFMTA) requests that the San Francisco Board of Supervisors authorize the Director of Transportation to execute Contract No. SFMTA-2025-28-LOC: Phase 1 LRV4 Brake System Overhaul with Wabtec Passenger Transit (Wabtec or Contractor) to perform the scheduled overhaul of key components of the LRV4 brake system on 68 vehicles, for a contract amount not to exceed \$15,527,933, and a term of two years and six months.

BACKGROUND

On September 30, 2014, the City entered into contract No. SFMTA-2013-19 with Siemens Mobility Inc. (Siemens Contract) to provide LRV4 light rail vehicles. Wabtec is the brakes manufacturer subcontractor under the Siemens Contract. The SFMTA is in the final phase of delivery for this LRV4 fleet expansion and replacement program. The Siemens' LRV4 program expanded the fleet by 68 vehicles (Phase 1) and is now replacing all 151 of the SFMTA's Breda light rail vehicles for a total fleet size of 219 LRV4 vehicles. The Siemens Contract includes a 5-year warranty for all LRV4 vehicles.

Between November 17, 2017, and August 31, 2020, SFMTA placed in service the 68 Siemens LRV4 Phase 1 vehicles. After delivery, the SFMTA identified fleet defects in the LRV4 Phase 1 brake system while those vehicles were still under warranty. It is important to note that the identified defects have not affected the safe operation of LRV4 vehicles. The brake system's design includes ample redundancy to allow for the vehicles to stop as commanded, even if certain components are defective. Nonetheless, these defects impact the SFMTA because they affect the long-term reliability and maintenance costs of the brake system. The Siemens Contract requires that fleet defects, once identified, be fixed by Siemens, with an extended warranty of 5 years added upon completion of the warranty fix for the corrected parts.

CONTRACT FOR BRAKE SYSTEM OVERHAUL

Regardless of whether fleet defects are identified, the Siemens Contract warranty provisions separately require the SFMTA to perform periodic overhauls on the brake system to maintain the brakes in a state of good repair. After 6 years in service, the Siemens Contract recommends the SFMTA, at its own expense, overhaul the brake system of the Phase 1 LRV4 vehicles, including Motor Truck (MT) and Center Truck (CT) Calipers, MT and CT Hydraulic Power Units (HPUs), and Accumulators. This overhaul is required to maintain the 5-year extension of the Siemens warranty associated with the fixed fleet defects.

In this procurement, the SFMTA will be contracting directly with Wabtec, the brake system manufacturer, to combine the warranty work – which Siemens is paying for – with the overhaul work – which is being paid for by the SFMTA. This combination saves money for the SFMTA. To perform either the warranty or the overhaul work, the brake systems will need to be removed from the vehicles and shipped to Wabtec’s facility in South Carolina. By performing both in the same contract, the removal and reinstallation of the brake systems and the cross-country shipping are being performed by Wabtec under the Siemens fleet defect warranty at no additional cost to the SFMTA. In addition, the proposed contract includes replacement of upgraded warranty parts, a discount on non-warranty overhaul parts, and a new 3-year end-to-end warranty on the overhauled components, including both parts and labor. Moreover, the proposed Contract satisfies the SFMTA’s obligation to maintain systems in a state of good repair per manufacturer’s recommendations required by the Siemens LRV4 vehicle contract and therefore protects the continuing 5 years warranty on replaced fleet defects parts. The proposed Contract includes negotiated terms regarding a limitation on liability to the Contract amount (except for certain enumerated claims) (Contract, paragraph 5.3), and a waiver of incidental and consequential damages (Contract, paragraph 5.5). These provisions are consistent with the limitation on liability and waiver of consequential damages in the Siemens Contract, and meet the requirements of Administrative Code Section 21.23.

Sole Source to Wabtec Passenger Transport

The sole-source requirements of Administrative Code section 21.5(b) are satisfied. The brake components acquired under the contract are available from only one source: Wabtec. Wabtec is the original equipment manufacturer (OEM) of the light rail vehicle brake components and is the only party that can perform the work, including providing manufacturer-approved components. The brake parts also have design and performance features that are essential to the SFMTA and no other source satisfies the SFMTA’s requirements. It is imperative that any repairs and/or modifications that are made to the brakes meet the original manufacturer’s requirements and standards to ensure that the warranties will not be voided.

ALTERNATIVES CONSIDERED

Project staff considered delaying or avoiding the scheduled overhaul. This would forgo the near-term expense of performing the overhaul, but would result in increased system maintenance requirements, cars held out of service, and reduced vehicle reliability and availability. As part of the LRV4 reliability

program, project staff from SFMTA, Siemens, and Wabtec closely monitor failures and root cause and are confident that predicted failures will increase if the overhaul is not performed as scheduled. Furthermore, performing the overhaul as scheduled preserves the extended warranty being provided by Siemens (and their subcontractor Wabtec) under obligations of the Siemens Contract. Not performing the brakes overhaul in accordance with manufacturer recommendations could potentially void those warranties which are extremely valuable to the SFMTA because the vendor continues to be responsible for repairs and bears the risk of future failures, defects, and corrective actions.

STAKEHOLDER ENGAGEMENT

The Civil Service Commission approved the request for this project under request PSC 40625-23/24 on May 6, 2024. Based on feedback from unions, project management staff has agreed to consider the possibility to self-perform future overhauls in-house which are not required to maintain the warranty.

The LRV4 Brakes System Overhaul being contracted has not undergone any public outreach, however the LRV4 vehicles currently deliver the majority of SFMTA rail service and are the result of extensive stakeholder engagement with multiple groups, including vehicle operators, rail maintenance, labor representatives, the riding public, the SFMTA Citizens' Advisory Council (CAC), the SFMTA Multimodal Accessibility Advisory Committee (MAAC), the SFMTA Board, and the Board of Supervisors.

FUNDING IMPACT

Contract Cost

The total cost of this contract \$15,527,933 as shown in Table 1. This includes a \$100,000 contingency for unexpected repairs deemed necessary on individual units caused by unusual damage or unforeseen circumstances in the field. SFMTA staff completed an independent cost estimate of both parts and labor and confirms the vendor price to be fair and reasonable.

Table 1

Description	Items Per Vehicle	Price Per Item	Price Per Vehicle	Vehicles	Price
MT Caliper Parts Kit	8	\$10,374.46	\$82,995.68	68	\$5,643,706.24
CT Caliper Parts Kit	2	\$10,059.37	\$20,118.74	68	\$1,368,074.32
MT HPU	2	\$20,332.66	\$40,665.32	68	\$2,765,241.76
CT HPU	1	\$20,332.66	\$20,332.66	68	\$1,382,620.88
Accumulator TT16548	3	\$1,925.24	\$5,775.72	68	\$392,748.96
Accumulator 1-60039	3	\$1,925.24	\$5,775.72	68	\$392,748.96
<i>Parts Subtotal</i>			\$175,663.84		\$11,945,141.12
MT Caliper Labor	8	\$4,184.44	\$33,475.52	68	\$2,276,335.36
CT Caliper Labor	2	\$3,502.62	\$7,005.24	68	\$476,356.32

MT HPU Labor	2	\$3,578.92	\$7,157.84	68	\$486,733.12
CT HPU Labor	1	\$3,578.92	\$3,578.92	68	\$243,366.56
Acc' TT16548 Labor	3	\$0.00	\$0.00	68	\$0.00
Acc' 1-60039 Labor	3	\$0.00	\$0.00	68	\$0.00
<i>Labor Subtotal</i>			\$51,217.52		\$3,482,791.36
					\$15,427,932.48
Contingency					\$100,000.00
					\$15,527,932.48
Total					(rounded to \$15,527,933)

Budget and Funding Plan

The current budget and funding plan for the Project is provided in Table 2 below:

Table 2

Budget Item		Funding
Contracts/Purchase Orders		\$15,427,933
Contingency		\$100,000
Total		\$15,527,933
Fund Source		Amount
General Fund (Prop B)		\$2,949,042
SFCTA Prop L Sales Tax		\$4,965,970
Transit Sustainability Fee (TSF)		\$2,737,921
Operating Revenues		\$4,500,000
Low Carbon Fuel Standard (LCFS)		\$375,000
Total		\$15,527,933

SFMTA BOARD ACTION

On May 6, 2025, The SFMTA Board of Directors is scheduled to act on Contract No. SFMTA-2025-28-LOC, by authorizing the Director of Transportation to execute Contract No. SFMTA-2025-28-LOC: Phase 1 LRV4 Brake System Overhaul with Wabtec Passenger Transit to perform the scheduled overhaul of key components of the LRV4 brake system on 68 vehicles, for a contract amount not to exceed \$15,527,933, and a term of two years and six months.

REQUEST FOR APPROVAL

The SFMTA respectfully requests that the Board of Supervisors authorize the Director of Transportation to execute Contract No. SFMTA-2025-28-LOC: Phase 1 LRV4 Brake System Overhaul with Wabtec Passenger

Transit to perform the scheduled overhaul of key components of the LRV4 brake system on 68 vehicles, for a contract amount not to exceed \$15,527,933, and a term of two years and six months.

Sincerely,

A handwritten signature in black ink, appearing to read 'Julie Kirschbaum', with a long horizontal flourish extending to the right.

Julie Kirschbaum
Director of Transportation