July 22, 2021

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 Modification No. 10 to SFMTA Contract No. 2013-19 with Siemens Mobility, Inc. – Option for 30 Light Rail Vehicles for $130,409,780 plus escalation

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 Modification No. 10 to SFMTA Contract No. 2013-19: Procurement of New Light Rail Vehicles, with Siemens Mobility, Inc., to exercise an option to procure 30 additional light rail vehicles in the amount of $130,409,780 plus applicable escalation costs, with cancellation provisions through June 2025, with no increase in the total Contract price or in the term of the Contract.

BACKGROUND

In 2014, the SFMTA Board of Directors approved Contract No. 2013-19 with Siemens Industry, Inc. (Siemens) to provide up to 260 light rail vehicles (LRVs or LRV4s), including an option for up to 85 LRVs to handle growth related to the Central Subway Project and systemwide ridership increases (the LRV4 Contract or the Contract), all for an amount not to exceed $1,192,651,577, and a term not to exceed 15 years.

The first 68 LRV4 vehicles were provided to the SFMTA between 2017 and 2020. These vehicles expanded the fleet to accommodate growing service needs including service to Chase Center and launch of the Central Subway. Phase 2 of the contract is now underway with the first vehicle to be delivered Fall of 2021. Phase 2 provides for the replacement of the 151 Breda LRVs, which are being retired concurrently. Replacing these older and less reliable vehicles is an established need in the SFMTA Capital Plan and will have immediate impact on overall system performance. The LRV4 vehicle now in production is on track to reach required reliability targets. The updated vehicle design resolves Phase 1 issues with doors and brakes and will continue to incorporate the latest generation of new electronic systems as they are adopted, such as the next generation Clipper system coming in 2022.

There have been nine modifications to the Contract:

- Through Contract Modifications Nos. 1 through 5, the SFMTA Board approved updates to the vehicle design, 44 additional vehicles and optional spare parts and equipment.
- Through Contract Modifications Nos. 6, 7 and 8, the SFMTA approved feedback-driven passenger comforts and engineering refinements, updates to vehicle equipment including cameras, provisions for weight incentives, administrative issues, and funding of acceleration activities essential to the early fleet replacement plan.
- Contract Modification No. 9 includes vehicle equipment design enhancements and includes escalation costs for the 151 replacement vehicles and other Phase 2 related items.

MODIFICATION NO. 10

Modification No. 10 exercises the option in the Contract to procure an additional 30 LRVs to be delivered after the Phase 2 vehicles. SFMTA seeks approval at this time based on three considerations described further below:

1. Requirement to Exercise Options by September 2021
2. Benefits of Long-Term Fleet Expansion with LRV4 Vehicles
3. Managing COVID-19 Uncertainty Through a Cancellation Clause

Options for more vehicles were built into the original contract to provide the SFMTA with flexibility to adjust the total number of vehicles purchased depending on changing service projections and/or economic conditions during the 15 years of the contract.

Staff is seeking approval to exercise Option 2 for 30 additional LRVs.

Phase 1 (including Option 1, and Phase W)	68 Vehicles Cars #1 to #68	Delivered 2017 to 2020
Phase 2	151 Vehicles Cars #69 to #219	Delivery Scheduled 2021 to 2025
Option 2	30 Vehicles Cars #220 to #249	TBD, Delivery Planned 2027 to 2029

Requirement to Exercise Options by September 2021

Federal law requires that rolling stock options be exercised within seven years of the date of the original contract, which, in this case would be September 30, 2021 (49 U.S.C. § 5325(e)(1)(B)FTA Circular 4220.1F, Chap. IV, §2.e(10(b).) SFMTA continues to engage the Federal Transit Administration on the deadlines for exercising these options, and potential for future cancellation.

The SFMTA projects a need for 30 additional vehicles before the end of this decade, but the uncertainties of post-COVID-19 recovery make this more difficult to predict. Given that these options will no longer be available after September 30, 2021, and that they can be cancelled until June 2025 (as described in more detail below), SFMTA seeks approval to exercise Option 2 for 30 vehicles.

Benefits of Long-Term Fleet Expansion with LRV4 Vehicles
Despite the near-term uncertainties the SFMTA must navigate over the next several years, there are compelling long-term benefits of exercising the option for 30 additional vehicles to serve riders through the 2040s. Benefits include:

- Maintaining a unified LRV4 Fleet
    - Simplifies maintenance and operations, with resulting cost efficiencies, by having only one type of LRV
    - Avoids future "orphan" fleet of only 30 vehicles with separate parts, procedures, and issues
- Maximizing value from current procurement
    - Uses planned flexibility built into existing contract to meet future needs
    - Delivers a road-tested, fully refined, proven LRV4 design
    - Leverages a very cost competitive bid submitted by Siemens
- Avoiding an entirely new procurement
    - Avoids staff and consulting effort for a new vehicle specification
    - Avoids multi-year RFP, award, and contract process
    - Avoids multi-year vehicle design process
    - Avoids schedule risk of new procurement
    - Avoids new vehicle testing, troubleshooting, and design refinement
- Controlling vehicle price increases and limiting risk
    - LRV4 price increases are contractually tied to escalation and verifiable production costs
    - Current LRV4 Contract includes cancellation opportunities through 2025

The SFMTA has been successful in unifying the fleet around a single LRV4 vehicle, which has also reduced the expense and effort of new vehicle procurements. Setting the groundwork to receive 30 more option vehicles by 2029 builds on this approach and takes full advantage of the flexibility woven into the LRV4 Contract from the start.

Managing COVID-19 Uncertainty Through a Cancellation Clause
The ongoing COVID-19 pandemic and recovery bring a high degree of uncertainty not only to the SFMTA, but to all U.S. transit systems. The speed of recovery, and whether there will be lasting changes to San Francisco mobility patterns, will play out over the next few years.

The addition of 30 vehicles by 2029 aligns with growth scenarios developed prior to the pandemic. Exercising these options before the September 2021 deadline allows the SFMTA to remain optimistic and well-prepared to serve the public as part of a strong economic recovery; however, we must also preserve flexibility and manage financial commitments in ways that track to a slower recovery or lasting changes to transportation demands.

To preserve flexibility necessitated by the pandemic, the SFMTA has negotiated option milestones that provide for no-cost cancellation through June 2025. Contract Modification No. 10 establishes that "Option 2 may be cancelled at no cost to the City at any time prior to issuance of the Release for Production Notice." The SFMTA can provide Siemens a "Release for Production Notice" at any time prior to June 2025. Failure to provide the Release for Production Notice will initiate the no-cost cancellation.

To accommodate the SFMTA's ability to cancel through June 2025, additional milestones and triggers have been added to account for added risks to Siemens. Specifically:

1. Production Restart Fee if Release for Production Notice comes after June 2023

   If the SFMTA can provide a Release for Production Notice before June 2023, vehicle production can continue uninterrupted with no additional restart fee. However, if the SFMTA provides notice after June 2023, then the SFMTA is agreeing to pay the actual costs of restarting production, not to exceed approximately $11M. In restarting a production line, Siemens would bear quantifiable costs, which can be verified at the time, but are difficult to predict at this time.

2. Escalation Minimum

   The price for Option vehicles will be escalated using the same methods applied for Phase 2 vehicles but will not be less than 0.15 percent per month compounded – or 1.81 percent per year compounded. Note that the escalation for Phase 2 calculated between 2014 and 2020 was 2.44 percent per year compounded. For budgetary planning purposes, the SFMTA uses 6 percent escalation for 2021 and 2022 and 5 percent for years 2023 through 2027, well above the minimum being established here. As such, the 0.15 percent minimum is a very low threshold and is acceptable to the SFMTA.

3. Accommodation for Future Unusual Market Conditions

   If Siemens can demonstrate that unusual market conditions (such as materials shortages or supply chain disruptions) increase the total future cost to produce the option vehicles by 3 percent or more than the escalated costs used to establish the price being paid by SFMTA per the Contract formula, the parties can negotiate price adjustments to cover the projected costs; or the SFMTA can terminate the Contract for convenience. The SFMTA believes this to be a possible, but unlikely, scenario.

Given the uncertainty facing transit over the next several years, SFMTA staff has taken steps to include no-cost cancellation through 2025 in this modification of the LRV4 Contract. Staff believes it is reasonable to provide Siemens with the three reciprocal mitigations discussed above to manage the added risk of an extended cancellation period during a time of unknown economic conditions.

ALTERNATIVES CONSIDERED

The SFMTA considered not exercising the Option for the 30 LRVs by September 30, 2021. Not exercising would cause these options to expire. It would no longer be possible to add additional vehicles after Phase 2 under this Contract. LRV4 production would be capped at 219 vehicles, and the Contract would end when all Breda LRVs are replaced as scheduled in 2025. Future vehicle expansion after 2025 would require a new vehicle procurement and new vehicle design; or a sole source procurement for LRV4s from Siemens at unknown future cost. SFMTA staff believes that exercising the option for 30 additional LRV4s is the preferred alternative, especially given that the SFMTA has negotiated terms for no-cost cancellation through 2025.

The Agency considered exercising the option for less than 30 vehicles. Despite uncertainty in service planning projections, which are being revised over the next two years, SFMTA staff estimates that the addition of 30 vehicles would most reasonably match growing service needs, especially given expected 3-car and 4-car train operations.

The Agency also considered exercising the option for more than 30 vehicles (up to 45 vehicles). At this early stage in post-pandemic service planning, only the most aggressive planning goals call for more than 30 additional vehicles. Further, while we are confident that 30 LRVs could be accommodated within our current facilities, adding more than 30 LRVs would strain the SFMTA's current capacity to store and maintain vehicles and would tie up additional funds in a challenging fiscal time.

STAKEHOLDER ENGAGEMENT

The LRV fleet being produced for Phase 2 is the result of extensive stakeholder engagement with multiple groups, including vehicle operators, rail maintenance, labor representatives, the riding public, the SFMTA Citizens' Advisory Council, the SFMTA Multimodal Accessibility Advisory Committee, the SFMTA Board, and the Board of Supervisors. Many of the refinements being implemented on the LRV4 fleet are the direct result of feedback received from stakeholders through this engagement process. The SFMTA has invested considerable effort and expense to meet stakeholder expectations for the LRV4 fleet, so expanding production maximizes return on our investment in stakeholder engagement.

FUNDING IMPACT

In considering the decision to exercise the option at this time, staff consulted with the FTA about various options and consulted with partnering funding agencies, including the Metropolitan

Transportation Commission and San Francisco County Transportation Authority (SFCTA).
The cost-benefit analysis is clear that the best value to the agency is to advance the option. Weighing the costs of an orphan fleet and any overhead costs related to a new contract, and the infrastructure costs for production start-up make exercising the option the most cost-effective option at this time.

Contract Cost
The Contract includes allowances for Option vehicles and escalation as shown in the table below.

	Value	Escalation Allowance	Total
Phase 1 - 24 Vehicles	$146,217,251		$146,217,251
Phase 2 – 151 Vehicles	$502,414,750	$133,300,188	$635,714,938
Option 1 – 40 Vehicles	$161,134,617	$810,360	$161,944,977
Option 2 – up to 45 Vehicles	$149,805,495	$98,968,916	$248,774,411
Total	$959,572,113	$233,079,464	$1,192,651,577

The cost items in Modification No. 10 total $130,409,780. This includes 30 LRVs at $3,978,186 per vehicle (including all of the modifications to date and escalated up to May 2020). Additional escalation will be calculated after the Release for Production Notice is issued and will come from the escalation allowance included in the Table below. Also included in this Modification No. 10 amount is the not-to-exceed restart fee of $11,064,200.

	Value	Escalation Amount/Allowance	Total
Base Phase 1 - 24	$146,217,251		$146,217,251
Base Phase 2 - 151	$502,414,750	$75,377,539	$577,792,289
Option 1 - 40 Cars (Exercised in Modification 1)	$161,134,617	$810,360	$161,944,977
Phase W 4 Cars (Modification 4)	$15,875,000		$15,875,000
Option 2 - 30 Cars	$130,409,780	$92,162,994	$222,572,774
Modifications (2, 3, 5-9)	$68,249,286		$68,249,286
Total	$1,024,300,684	$168,350,893	$1,192,651,577

Funding Status

The maximum funding needed for this option is estimated at $222.6 million (reference Table 2 above) and is outside of the current financially constrained SFMTA 5-Year Capital Improvement Program (CIP) which ends at fiscal year 2025. Initial funding required to support the cashflow for this option will be included as part of the update on the 5-Year CIP in Spring 2022.

The SFMTA has numerous potential revenue sources and paths to meet the planned cost and cashflow for the option, which would begin at or around fiscal year 2027. The baseline funding can potentially come from future allocations of Proposition B Population Baseline funds – $48.0 million in FY 2023-24, $66.7 million in FY 2024-25 and $70.7 million in FY 2025-26, as updated in the March Joint Report released by the Controller's Office on March 31, 2021; however, this is a planned stopgap. Other potential sources include:

- *Proposition K ½ cent Transportation Sales Tax*: The SFCTA is currently in the process of considering the schedule for the reauthorization of the existing ½ sales tax. The prior expenditure plan included $5 million for LRV expansion. The SFMTA will advocate that this amount or potentially more be included as part of the development of a new expenditure plan. This is a policy decision for the SFCTA Board.
- *Development Impact Fees/Transportation Sustainability Fees*: A key driver for the expansion of the fleet is both job and population growth. Fleet Expansion was identified as a key need in the Transportation Sustainability Fee (TSF) Nexus Study. As development occurs in the city, driving the need to purchase these vehicles, TSF can be set aside through the CIP process to cover the cost of vehicles. Other development projects throughout the city have contributed to vehicles over time. It is likely within the contract window that these dollars will be available to fund a component of the overall funding plan.
- *SFMTA Revenue Bond Program*: The agency has funded LRV fleet expansion through the SFMTA's revenue bond program in the past. Depending on market conditions and staying within the agency's debt service policy of no more than 5 percent of the agency's adopted operating budget, the SFMTA may incur debt for the expansion LRVs. By FY 2025, debt service is projected to be 2.14 percent of the operating budget.
- *Competitive Grants:* There are numerous federal and state grant programs that exist or are currently proposed to be modified through legislative action that could potentially support the funding plan for expansion LRVs. The most promising is the Transit and Intercity Rail Capital Program. The agency has already been successful in winning $114 million from this program for the prior expansion procurement and we anticipate further success in the coming years based on prior awards and the competitiveness of this fleet procurement.

  The regional One Bay Area Grant Program also is a potential source of funding.

With so many funding sources available for this procurement, a full funding plan is anticipated from a package of the sources above, with Proposition B as a cashflow stop gap, pending the allocation of the other sources just noted.

SFMTA BOARD ACTION

On August 3, 2021, The SFMTA Board of Directors is scheduled to act on Contract Modification 10 to SFMTA Contract No. 2013-19: Procurement of New Light Rail Vehicles, with Siemens Mobility, Inc., authorizing the Director of Transportation to exercise an option to procure 30 additional light rail vehicles in the amount of $130,409,780 plus applicable escalation costs, with cancellation provisions through June 2025, with no increase in the total Contract price or in the term of the Contract.

RECOMMENDATION

Staff recommends that the Board of Supervisors authorize the Director of Transportation to execute Contract Modification No. 10 to SFMTA Contract No. 2013-19: Procurement of New Light Rail Vehicles, with Siemens Mobility, Inc., to exercise an option to procure 30 additional new light rail vehicles for the amount of $130,409,780, with cancellation provisions through June 2025, and with no increase in the total Contract price or in the term of the Contract

Sincerely,

Jeffrey P. Tumlin
Director of Transportation