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March 24, 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 – Modification No. 3 CN1266-2 Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System for the Central Subway Project, with Thales Transport & Security Inc.

Honorable Members of the Board of Supervisors:

The San Francisco Municipal Transportation Agency (SFMTA) requests that the San Francisco Board of Supervisors approve Modification No. 3 to the Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System (ATCS) for the Central Subway Project, with Thales Transport & Security Inc. Contract No. 1266-2, modifies ATCS software and designs to conform to national fire codes, correct track speed limits, modify installation requirements, and accelerate completion of work, extend the term to April 29, 2022, and compensate Thales for costs it incurred arising from delay to the Project, for a modified contract amount of \$27,730,300.40..

Background

On December 3, 2013, the SFMTA Board of Directors adopted Resolution No. 13-260 awarding Contracts 1266-1 and 1266-2 (ATCS Contracts) to Thales for procurement of proprietary ATCS equipment, designs, software, configuration and testing for the Central Subway.

Contract 1266-1 for ATCS equipment was awarded for a total amount not-to-exceed \$3,425,424. Contract 1266-2 for ATCS design, software, implementation and testing services was awarded for a total amount not-to-exceed \$21,363,292. The sum total contract amounts of the ATCS Contracts is \$24,788,716. The Central Subway ATCS must be fully integrated with the main Muni Metro subway ATCS. The ATCS is a proprietary system only available from Thales, and the ATCS Contracts were therefore sole source procurements.

Tutor Perini Corporation (Tutor) is performing Central Subway construction work, including the construction of ATCS infrastructure and installation of ATCS equipment, under SFMTA Contract 1300. The term for the ATCS Contracts commenced upon Notice to Proceed in 2014 and extends into a Warranty Period that runs for three years past the date of Contract 1300



Substantial Completion. The construction work is scheduled to achieve Substantial Completion on March 31, 2021, so ATCS warranty will extend to March 31, 2024.

Prior Modifications to Contract No. 1266-2

On February 19, 2019, the SFMTA Board of Directors approved an amendment to Contract 1300 (the Central Subway construction contract) to affect an early reassignment of the ATCS Contracts from TPC back to the SFMTA for ATCS design, equipment procurement, and operations start-up and testing. Following reassignment back to the SFMTA, Contract 1266-2 has been modified twice.

Contract Modification No. 1, dated December 3, 2019, affirmed the reassignment of the contract back to the SFMTA and corrected the contract amount to \$14,309,214.00 to reflect ATCS design expenditures made under Contract 1300, when Thales was a subcontractor to Tutor.

Contract Modification No. 2, dated February 19, 2021, modified ATCS designs concerning emergency stop equipment, station controllers, the location of wayside equipment installation, increasing the contract amount \$589,342.80 for a total contract amount not-to-exceed \$14,898,556.80. The Director of Transportation approved those contract modifications under contracting authority the SFMTA Board delegated to him.

Contract Modification No. 3

A. ATCS Design Changes. Contract Modification No. 3 will affect seven changes to the design and operations requirements of the ATCS and the ATCS Work schedule.

1. The National Fire Protection Association (NFPA) sets standards and requirements for fire safety in subways, which are enforced by State and local fire marshals and the California Public Utilities Commission, which regulates and certifies subway operations and safety in California. NFPA Rule 130 Ventilation Requirements potentially limit the number of trains that may be present in Central Subway stations and tunnels. Thales will modify the ATCS designs and software to automate train movements in accordance with NFPA Rule 130 Tunnel Ventilation requirements, which will more efficiently reduce headway and maximize vehicle service than can be achieved by manual train control.
2. Thales will modify ATCS track speed limits to accord with changes to trackway designs.
3. Thales will modify ATCS design documents to reflect final changes in the final stationing of installed wayside equipment.



4. Thales will reduce the number of Portal Intrusion Devices to accord with final designs.
5. Thales will provide two independent circuits for Platform Emergency Stop Buttons.
6. Thales will modify ATCS design documents to reflect final changes in the placement of ATCS equipment in the Chinatown Station Train Control Room to accommodate separate LSMC and ACE racks.
7. Thales will accelerate implementation of ATCS Work so that the ATCS will be fully certified and ready for revenue service on or before April 29, 2022.

To encourage timely completion of the ATCS Work so that the Agency may commence revenue service in the summer of 2022, Modification No. 3 also requires Thales to pay the SFMTA liquidated damages of \$15,000 per calendar day for each day of delay to completing the ATCS after May 1, 2022.

B. Delay and Impacts Claim. Contract Modification No. 3 provides that the SFMTA will pay Thales \$2,491,394.00 in compensation for costs it incurred from delays and impacts arising from denial of scheduled access to Central Subway work sites where Thales was to perform ATCS testing from March 2019 to January 2021. The delay costs include labor and materials costs escalation, lost labor hours, inefficiency, warranty and license extensions, overhead and schedule impacts. The amount negotiated is based on negotiated labor rates that the SFMTA and Thales use in an existing as-needed ATCS service contract (SFMTA Contract No. 2020-20: Train Control Services and Equipment Purchases Agreement, with Thales Transport & Security, Inc.).

Thales is not responsible for the delays; Thales' inability to access Central Subway work sites to perform ATCS testing was caused by delays in Project construction. The SFMTA had provided Thales seven different testing start dates from March 2019 to September 2020, but then rescinded each of them either because the infrastructure to be tested was not fully constructed or installed, or Tutor (the construction contractor) was performing other work at the sites that would conflict with Thales' work. Thales was finally able to access the work sites and commence testing activities on January 19, 2021, two years and ten months from the original scheduled testing date. During the delay period, Thales' personnel were idled, but the SFMTA did not direct Thales to suspend its work out of concern that allowing Thales personnel to be reassigned to other projects so risked further delay to completion of the Central Subway Project.

Charter Section 9.118 and Approval of SFMTA 2020-2020

Board of Supervisors' approval is required for CN1266-2 under Charter section 9.118(b), because the value of the Contract exceeds \$500,000.



Alternatives Considered

The SFMTA could decide not to amend Contract 1266-2 to modify ATCS functions but doing so would likely degrade Central Subway operations and service delivery. The SFMTA could deny Thales' delay claims, but that would likely result in further delay to completion of the ATCS work, which would likely delay Central Subway revenue service. Denying Thales' claims may also cause Thales to litigate its claims, transfer personnel off the Project, and/or refuse to provide further services to the SFMTA.

Funding Sources

The Central Subway Project is funded with Federal Transit Administration (FTA) New Starts, Federal Congestion Management & Air Quality (CMAQ), State Transportation Bond Proposition 1A and 1B, State Regional Improvement Program, State Transportation Congestion Relief Program, Prop K Half-Cent Local Sales Tax funds and other local funds.

Funding Impact/Budget

The Amendment will increase the total Project cost of by \$12,831,743.60. On March 2, 2021 the SFMTA Board received an updated estimate-at-completion of \$1.891 billion for the Central Subway project which includes the cost of this contract modification. As noted at the meeting, the additional budget for the estimate-at-completion will be funded by the operating budget (cost savings, claims reserve, proposition B population baseline, and shifting flexible funds) and by additional funding from federal relief through the Federal Transit Administration's Capital Investments Grant program.

Recommendation

The SFMTA recommends that the San Francisco Board of Supervisors adopt the Resolution executing Modification 3 to 1266-2 Contract with Thales Transport & Security, Inc.

Thank you for your consideration of this proposal. Should you have any questions or require more information, please do not hesitate to contact me at any time.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Jeff Tumlin'.

Jeff Tumlin
Director of Transportation