

THIS PRINT COVERS CALENDAR ITEM NO.: 6.4

**SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY**

DIVISION: Finance & Information Technology

BRIEF DESCRIPTION:

Approving Modification No. 4 to the Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System (ATCS) for the Central Subway, Contract No. 1266-2, to: (1) acknowledge the contractor's name change from Thales Transport & Security Inc. to Hitachi Rail GTS USA Inc. (Hitachi); (2) compensate Hitachi \$392,992.43 for Additional Work it performed due to SFMTA changes to ATCS designs and specifications; (3) compensate Contractor \$996,684.59 for 136 Days that Contractor's work was delayed due to lack of access to Central Subway sites; (4) add \$705,407.80 to the contract amount to replenish funds SFMTA paid to Hitachi as retention release from Contract 1300, together increasing the contract \$2,095,084.82, for a total modified contract amount of \$29,825,385.22; and (5) modify the Substantial Completion date to August 30, 2022, and extend the warranty period to August 30, 2025; and requesting the Board of Supervisors to approve this Modification No. 4.

SUMMARY:

- On December 3, 2013, the SFMTA awarded Contract 1266-2 to Thales Transport & Security Inc., now named Hitachi Rail GTS USA, Inc. (Hitachi), for design, software, configuration and testing of the ATCS for the Central Subway for an amount not-to-exceed \$21,363,292, with a term to run three years beyond substantial completion of Central Subway construction.
- The SFMTA assigned Contract 1266-2 to Tutor Perini Corporation (Tutor), the Central Subway construction contractor under SFMTA Contract 1300, on April 8, 2014, so that Hitachi would be a subcontractor to Tutor and would coordinate closely with Tutor in the installation and testing of the ATCS; when that relationship became unworkable, the Contract was reassigned back to the SFMTA in 2019.
- This Contract Modification No. 4 acknowledges the name change, modifies ATCS specifications, compensates Contractor for additional work and costs incurred due Central Subway construction delays, modifies the Substantial Completion date to August 30, 2022, extends the warranty period for the Central Subway ATCS to August 30, 2025, and replenishes funds paid from Contract 1266-2 as released retention that Hitachi had earned while Hitachi was a subcontractor to Tutor.

ENCLOSURES:

1. SFMTA Board Resolution
2. Contract No. 1266-2 Modification No.4
3. Central Subway SEIS/SEIR: <https://www.sfmta.com/reports/central-subway-final-seisseir>

APPROVALS:

DIRECTOR



DATE

October 30, 2024

SECRETARY



October 30, 2024

ASSIGNED SFMTAB CALENDAR DATE: November 6, 2024

PURPOSE

Approving Modification No. 4 to the Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System (ATCS) for the Central Subway Project, Contract No. 1266-2 to: (1) acknowledge the contractor's name change from Thales Transport & Security Inc. to Hitachi Rail GTS USA Inc. (Hitachi); (2) compensate Hitachi \$392,992.43 for Additional Work it performed due to SFMTA changes to ATCS designs and specifications; (3) compensate Contractor \$996,684.59 for 136 Days that Contractor's work was delayed due to lack of access to Central Subway sites; (4) add \$705,407.80 to the contract amount to replenish funds SFMTA paid to Hitachi as retention release from Contract 1300, together increasing the contract \$2,095,084.82, for a total modified contract amount of \$29,825,385.22; and (5) modify the Substantial Completion date to August 30, 2022, and extend the warranty period to August 30, 2025; and requesting the Board of Supervisors to approve this Modification No. 4.

STRATEGIC GOALS AND TRANSIT FIRST POLICY PRINCIPLES

This action supports the following SFMTA Strategic Goals:

5. Deliver reliable and equitable transportation services.
6. Eliminate pollution and greenhouse gas emissions by increasing use of transit, walking, and bicycling.
9. Fix things before they break, and modernize systems and infrastructure.

This item will support the following Transit First Policy Principles:

1. Improves the safe and efficient movement of people and goods.
2. Improves public transit as an attractive alternative to travel by private automobile.
8. Allocates transit investments to meet the demand for public transit generated by new public and private commercial and residential developments.
9. Promotes the use of regional mass transit and the continued development of an integrated, reliable, regional public transportation system.

BACKGROUND

The Advanced Train Control System (ATCS), is a specialized and proprietary system that was first supplied to Muni by Alcatel Signaling, now Hitachi Rail GTS USA, Inc. (Hitachi), under Contract MR-1034R, dated August 10, 1992. The ATCS first operated in revenue service in 1998. The ATCS has since been modified and improved under multiple contracts with Hitachi, with a total value exceeding \$100 million.

The Central Subway is an extension of the Muni T-Line that runs approximately 1.6 miles from 4th and Brannan Streets, north under Fourth Street to Stockton Street, and north under Stockton Street into Chinatown. Construction of the Central Subway commenced in 2010 and the subway began revenue service in January 2023.

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

Subway. Under Contract 1266-1, Hitachi provided Central Subway ATCS equipment to SFMTA for a total amount not-to-exceed \$3,425,424; under Contract 1266-2, Hitachi provided to SFMTA ATCS design, software, implementation and testing services, for a total amount not-to-exceed \$21,363,292. Both ATCS Contracts were sole source procurements, because the ATCS is proprietary to Hitachi, and ATCS software, equipment and related professional services cannot be obtained from any other source.

On July 7, 2014, SFMTA exercised an option under Contract 1266-2 to assign the contract to Tutor Perini Corporation (TPC), the contractor the SFMTA engaged to construct the Central Subway stations, trackways and systems under SFMTA Contract 1300. Hitachi designed the ATCS and performed testing and safety certification for the ATCS; TPC constructed the ATCS infrastructure and installed the ATCS equipment. SFMTA had intended that by assigning Contract 1266-2 to TPC, the contractor and Hitachi would efficiently work together to design, install, test and implement the Central Subway ATCS. But the relationship between Hitachi and TPC became unworkable. On February 19, 2019, the SFMTA deleted ATCS work from Contract 1300 (effectively relieving TPC of responsibility for ATCS final implementation, testing, and safety certification), and re-assigned Contract 1266-2 back to the SFMTA. The SFMTA, through Hitachi, then assumed direct responsibility for completing the Central Subway ATCS design, equipment procurement, and operations start-up and testing.

Hitachi completed ATCS implementation and testing, and certified the ATCS for revenue service on January 7, 2023. The warranty for the ATCS will expire on April 29, 2025 (as provided in the Modification No. 3 to the Contract). The only remaining work that Hitachi must perform under Contract 1266-2 is an update to the ATCS software, which Hitachi will complete on or before April 29, 2025. Following completion of that software update, the Director of Transportation may issue notice to Hitachi accepting the work under Contract 1266-2 and closing that contract.

Prior Modifications to Contract No. 1266-2

Following reassignment back to the SFMTA, Contract 1266-2 has been modified three times. Contract Modification No. 1, dated December 3, 2019, affirmed the reassignment of Contract 1266-2 back to SFMTA and corrected the contract amount to \$14,400,001.00 to reflect the then remaining value of ATCS implementation work.

Contract Modification No. 2, dated February 19, 2021, modified ATCS designs concerning emergency stop equipment, station controllers, the location of wayside equipment installation, and increased the contract amount by \$498,555.80 to pay for those changes, 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, approved by the SFMTA Board of Directors and the Board of Supervisors, dated April 30, 2021, modified ATCS software and designs to conform to national fire codes, corrected track speed limits, modified installation requirements, accelerated completion of work, extended the contract term to April 29, 2022, extended the warranty period to April 29, 2025, compensated Hitachi for costs it incurred arising from delays to the Project, and increased the contract amount by \$12,831,743.60, for a total modified contract amount of \$27,730,300.40.

DESCRIPTION OF CONTRACT MODIFICATION NO. 4

- A. Additional Work** - SFMTA requested changes to Central Subway ATCS software to ensure adequate throughput of non-communicating trains. In the case of two or more non-communicating trains in series, the changes modify software logic so that a train can depart a platform before the train ahead in the direction of travel leaves the platform it is serving. Before this change, the following train would be forced to wait for the leading train to leave its platform, limiting subway throughput in some operational scenarios involving non-communicating trains. The software change required modification to several subsystems and cost \$392,992.43.
- B. Delay and Impacts Claim.** Hitachi claimed that delays by the SFMTA and TPC caused it to incur over \$1,721,196.04 in additional costs not compensated under Contract 1266-2, which included additional labor and materials costs and escalation, lost labor hours, inefficiency, warranty and license extensions, and overhead and schedule impacts. The SFMTA reviewed these claims with the assistance of a claims expert contracted through AECOM, the SFMTA's project and construction management consultant for the Central Subway Project. The SFMTA negotiated with Hitachi to pay a total of \$996,684.59 to resolve Hitachi's contract claims, as follows:
1. Delays to Field Testing. Hitachi claims its work was delayed 34 days from August 9 to September 13, 2021, due to the SFMTA's delay in providing access to Central Subway tunnels, stations and control center sites to commence field testing. SFMTA negotiated a payment of \$600,000 to compensate Hitachi for that delay.
 2. Delays Due to Fire at YBM Station Traction Power Substation. Hitachi claims its work was delayed 14 days from July 6 to July 20, 2022, due to a fire at the Yerba Buena Station traction power substation. SFMTA negotiated a payment of \$255,563.95 to compensate Hitachi for that delay.
 3. Delays Due to Work Zone Violation. Hitachi claims its work was delayed 88 Days from August 7 to November 3, 2023, due to a work zone violation during testing in the Central Subway and SFMTA's re-evaluation of ATCS test procedures, which delayed Contractor's release and testing of changes to the Central Subway ATCS software. SFMTA negotiated a payment of \$141,120.64 to compensate Hitachi for that delay.
- C. Replenishment of Monies Paid as Retention to Contract 1300.** When the SFMTA deleted ATCS work from Contract 1300 with TPC on February 19, 2019, TPC was holding \$705,407.80 in retention on progress payments for Hitachi's ATCS work as a subcontractor to TPC. The SFMTA directed TPC to release that retention to Hitachi, but TPC did not do so. To resolve the matter with Hitachi, on or about August 12, 2022, SFMTA paid Hitachi \$705,407.80 from Contract 1266-2 funds, which is an amount equal to the funds that TPC held in retention. That payment reduced Contract 1266-2 funds, which must be replenished by amendment to that contract so that the SFMTA may compensate Hitachi remaining amounts it is owed.

STAKEHOLDER ENGAGEMENT

The SFMTA meets with community organizations and elected officials on a regular basis to inform them of construction activities, status of the Project, and anticipated completion and revenue service dates. Community outreach is not needed for this Modification, as the changes and delays to delivery of the ATCS did not impact transit service. The SFMTA's Transit Division and Technology Division participated in the determining the changes to the ATCS effected by this Amendment.

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 have denied Hitachi's delay claims, but that would likely have resulted in further delays to completion of the ATCS work. Denying Hitachi's claims could also cause Hitachi to litigate its claims, transfer personnel off the Project, and/or refuse to provide further services to the SFMTA.

FUNDING IMPACT

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 (TCRP), Prop K Half-Cent Local Sales Tax funds, and other local funds. This Amendment reflects the execution of policy decisions previously made by the Board. It will increase the total Project cost \$2,095,084.88, which is included in the approved \$1.891 billion estimate-at-completion presented to the SFMTA Board on March 21, 2021. The additional budget for this contract modification will be funded by the Capital Budget Reserve, which is a source of last resort when no other funding sources are available and there is a regulatory or life/safety project element that must be funded. Additional future contract modifications may be brought to Board as the project completes close-out activities. No additional sources have been identified. Future contract modifications would required shifting funding from other projects.

ENVIRONMENTAL REVIEW

The Central Subway Final Supplemental Environmental Impact Statement / Supplemental Environmental Impact Report (Central Subway SEIS/SEIR) evaluated the environmental impacts of the Central Subway project, including construction of the subway stations. On August 7, 2008, the San Francisco Planning Commission certified the Final SEIR (Case No. 1996.281E). On August 19, 2008, the SFMTA Board of Directors approved Resolution 08-150 adopting Central Subway Project Alternative 3B as the Locally Preferred Alternative, the California Environmental Quality Act (CEQA) Findings, Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan.

The modification to Contract No. 1266-2 as described herein falls within the scope of the Central Subway SEIS/SEIR.

The Central Subway SEIS/SEIR is on file with the SFMTA Board of Directors and may be found

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in the records of the Planning Department at <https://sfplanning.org/> and 49 South Van Ness Avenue, Suite 1400 in San Francisco, and is incorporated herein by reference.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The City Attorney's Office has reviewed this calendar item. The Board of Supervisors' approval is required under Charter section 9.118, because the value of the original Contract exceeded \$10,000,000, and the value of this Modification exceeds \$500,000.

RECOMMENDATION

Staff recommends that the SFMTA Board of Directors approve Modification No. 4 to the Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System (ATCS) for the Central Subway Project, Contract No. 1266-2 to: (1) acknowledge the contractor's name change from Thales Transport & Security Inc. to Hitachi Rail GTS USA Inc. (Hitachi); (2) compensate Hitachi \$392,992.43 for Additional Work it performed due to SFMTA changes to ATCS designs and specifications; (3) compensate Contractor \$996,684.59 for 136 Days that Contractor's work was delayed due to lack of access to Central Subway sites; (4) add \$705,407.80 to the contract amount to replenish funds SFMTA paid to Hitachi as retention release from Contract 1300, together increasing the contract \$2,095,084.82, for a total modified contract amount of \$29,825,385.22; and (5) modify the Substantial Completion date to August 30, 2022, and extend the warranty period to August 30, 2025; and request the Board of Supervisors to approve this Modification No. 4.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION NO. _____

WHEREAS, The SFMTA's Central Subway Project, which is Phase 2 of the Third Street Light Rail Project, constructed a new subway line in San Francisco, which runs approximately 1.6 miles from 4th and Brannan Streets, north under Fourth Street to Stockton Street, and north under Stockton Street into Chinatown; and,

WHEREAS, The Advanced Train Control System (ATCS) is a specialized and proprietary system that controls light rail vehicle movement, speed, headway and braking in the subway and was first supplied to the SFMTA by Hitachi Rail GTS USA Inc. (Hitachi) (formerly Alcatel Transport Automation (U.S.) Inc.) under San Francisco Municipal Railway contract MR-1034R, dated August 10, 1992, and has been modified and expanded under multiple subsequent contracts with Hitachi, the total value of which exceed \$100,000,000; and,

WHEREAS, On December 3, 2013, the SFMTA Board of Directors and the San Francisco Board of Supervisors approved the award of the Agreement between the City and County of San Francisco and Hitachi, Inc. for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System for the Central Subway Project with Hitachi, Contract No. 1266-2, (Contract No. 1266-2) by which Hitachi would review of existing ATCS designs, perform final ATCS engineering and designs, and provide as-needed oversight, inspection of ATCS infrastructure and equipment installation, and testing services to support ATCS installation and implementation that extends the ATCS into the Central Subway, for an amount not-to-exceed \$21,363,292.05, with a term to run three years beyond substantial completion of Central Subway construction (SFMTA Bd. Res. 13-260), which term will expire on April 29, 2025 upon the expiration of the contract's warranty; and,

WHEREAS, As planned, on July 7, 2014, the SFMTA assigned Contract 1266-2 to the Central Subway construction contractor, Tutor, so that Hitachi would be a subcontractor to Tutor under Contract No. CS-1300, but that arrangement proved to be unworkable, and the City on February 28, 2019 exercised its rights under Contract 1300 to re-assign Contract 1266-2 back to the SFMTA, so that Hitachi would provide ATCS equipment, software and related services directly to the City to implement the ATCS for the Central Subway; and,

WHEREAS, This Contract 1266-2 has previously been amended three times:

- Contract Modification No. 1, dated December 3, 2019, which affirmed the reassignment the contract back to SFMTA and corrected the contract amount to \$14,400,001.00 to reflect the value of remaining ATCS work; and
- Contract Modification No. 2, dated February 19, 2021, which modified ATCS designs concerning emergency stop equipment, station controllers, the location

of wayside equipment installation, for a modified Contract Amount of \$14,898,556.80; and

- Contract Modification No. 3, dated April 30, 2021, which updated ATCS software and designs to conform to national fire codes, corrected track speed limits, modified installation requirements, accelerated completion of work, extended the contract term to April 29, 2022, extended the warranty period to April 29, 2025, and compensated Hitachi for costs it incurred arising from delay to the Project, for a modified Contract Amount of \$27,730,300.40; and,

WHEREAS, This Fourth Modification to Contract 1266-2 will: (1) acknowledge the contractor's name change; (2) compensate Hitachi \$392,992.43 for Additional Work it performed arose from SFMTA changes to ATCS designs and specifications; (3) compensate Contractor \$996,684.59 for 136 Days that Contractor's work was delayed due to lack of access to Central Subway; (4) replenish monies paid as retention to Contract 1300 in the amount of \$705,407.80; and (5) modify the Substantial Completion date to August 30, 2022, and extend the warranty period to August 30, 2025, and,

WHEREAS, The SFMTA's Contract Compliance Office has previously determined that due to the proprietary nature of the ATCS, there are no subcontracting opportunities for Small Business Enterprises under Contract 1266-2; and,

WHEREAS, The Central Subway Final Supplemental Environmental Impact Statement/Supplemental Environmental Impact Report (Central Subway SEIS/SEIR) evaluated the environmental impacts of the Central Subway Project, including construction of the subway stations; on August 7, 2008, the San Francisco Planning Commission certified the Final SEIR (Case No. 1996.281E); on August 19, 2008, the SFMTA Board of Directors approved Resolution 08-150 adopting Central Subway Project Alternative 3B as the Locally Preferred Alternative, the California Environmental Quality Act (CEQA) Findings, Statement of Overriding Considerations, and the Mitigation Monitoring and Reporting Plan; and,

WHEREAS, The modification to Contract No. 1266-2 described herein comes within the scope of the Central Subway SEIS/SEIR; and,

WHEREAS, The Central Subway SEIS/SEIR is on file with the SFMTA Board of Directors and may be found in the records of the Planning Department at <https://sfplanning.org/> and 49 South Van Ness Avenue, Suite 1400 in San Francisco, and is incorporated herein by reference; now therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors approves Modification No. 4 to the Agreement for Design Review, Software, Implementation and Testing Services for an Advanced Train Control System (ATCS) for the Central Subway Project, Contract No. 1266-2 to: (1) acknowledge the contractor's name change from Thales Transport & Security Inc. to Hitachi Rail GTS USA Inc. (Hitachi); (2) compensate Hitachi \$392,992.43 for Additional Work it performed due to SFMTA changes to ATCS designs and specifications; (3) compensate Contractor \$996,684.59 for 136 Days that

Contractor's work was delayed due to lack of access to Central Subway sites; (4) add \$705,407.80 to the contract amount to replenish funds SFMTA paid to Hitachi as retention release from Contract 1300, together increasing the contract \$2,095,084.82, for a total modified contract amount of \$29,825,385.22; and (5) modify the Substantial Completion date to August 30, 2022, and extend the warranty period to August 30, 2025; and be it further

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors requests that the Board of Supervisors approve Contract Modification No. 4; and be it further

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors authorizes the Director of Transportation, in consultation with the City Attorney, to make non-substantive corrections to the contract documents and take such action as the Director deems necessary to effect the intent and purposes of this Resolution.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of November 6, 2024.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency

CONTRACT MODIFICATION No. 04

**SFMTA Contract No. 1266-2,
ATCS Implementation**

Contractor: Hitachi Rail GTS USA Inc.
99 Park Avenue, Suite 1120
New York, NY 10016

Contract Modification No. 04

Summary:

As described below, this Contract Modification No. 4 (Fourth Amendment) to SFMTA Contract No. 1266-2, acknowledges the contractor's name change and increases the Contract Amount \$2,095,084.82 for a modified total Contract Amount of \$29,825,385.22. The increase to the Contract Amount: (1) compensates Hitachi Rail GTS USA Inc. (Contractor or HRGTSUSA) \$392,992.43 for Additional Work it performed arising from SFMTA's changes to Central Subway Advanced Train Control System (ATCS) designs and specifications; (2) compensates Contractor \$996,684.59 for costs incurred in mitigating 136 Days of delay to its Work due to delays in Central Subway construction work; (3) adds \$705,407.80 to the Contract Amount to replenish funds paid Contractor from this Agreement to resolve Contractor's claim for payment of retention under Central Subway Contract 1300; and, (4) modifies the Substantial Completion date to August 30, 2022, and extends the warranty period for the Central Subway ATCS to August 30, 2025.

The Contract is modified as follows:

1. Name Change

The SFMTA acknowledges that Contractor has changed its name from Thales Transport & Security, Inc., to Hitachi Rail GTS USA Inc., in two transactions. On April 11, 2022, Thales Transport & Security Inc, changed its name to Ground Transportation Systems USA Inc., and on June 3, 2024, Ground Transportation Systems USA Inc. changed its name to Hitachi Rail GTS USA Inc. Although Contractor has changed its name and changed its address, the Tax ID for the company has not changed and there has been no other change to the legal identity or status of the company. For all purposes concerning this Contract, Hitachi Rail GTS USA Inc. is the same entity as Thales Transport & Security, Inc., which entity remains in privity with and obligated to perform the Contract. The Contract is amended to replace every instance of "Thales Transport & Security, Inc." and "Thales" with "Hitachi Rail GTS USA Inc."

2. Additional Work

Appendix H, Item J, ATCS Functional Requirements (Construction Contract Specifications Section 34 42 25 - 2.19 Non-Communicating Train Tracking functionality) of the Contract is amended to add the following Additional Work:

- e. Destination block shall not be included in the conditions to set a route for a non-communicating train. Non-communicating trains are allowed to depart if the

downstream platform block is occupied, provided all interstation blocks are unoccupied.

3. Compensation for Delays

a. Delays to Field Testing. The Parties agree that Contractor was delayed 34 Days from August 9 to September 13, 2021, due to the SFMTA’s delay of Contractor’s field testing due to construction delays in August 2021. Contract Appendix 1 - Schedule of Price is amended to add \$600,000 to the Contract Amount to compensate Contractor for its additional costs arising from that delay.

b. Delays Due to Fire at YBM Station Traction Power Substation. The Parties agree that Contractor’s work was delayed 14 Days from July 6 to July 20, 2022 due to a fire at the Yerba Buena Station traction power substation. SFMTA and HRGTSUSA negotiated a settlement. Contract Appendix 1 - Schedule of Price is amended to add \$255,563.95 to the Contract Amount to compensate Contractor for its additional costs arising from that delay.

c. Delays Due to Work Zone Violation. The Parties agree that Contractor’s work was delayed 88 Days from August 7 to November 3, 2023 due to a work safety zone violation in the Central Subway during testing and SFMTA’s re-evaluation of ATCS test procedures, which delayed Contractor’s release and testing of changes to the Central Subway ATCS software. Contract Appendix 1 - Schedule of Price is amended to add \$141,120.64 to the Contract Amount to compensate Contractor for its additional costs arising from that delay.

4. Replenishment of Monies Paid as Retention to Contract 1300.

The SFMTA paid Contractor \$705,407.80 on or about August 12, 2022, which is an amount equal to the funds that Tutor Perini Corporation (TPC), the Central Subway Project construction contractor, had withheld from Contractor when Contractor had been a subcontractor to TPC under Contract 1300 (the contract to construct the Central Subway stations, trackways, and system. That payment reduced funds available for this Contract by that amount. This Fourth Amendment recognizes the SFMTA’s payment of \$705,407.80 to Contractor to resolve all disputes concerning the payment of funds owed as retention to Contractor under Contract 1300. The Contract Amount is increased \$705,407.80 to replenish available funds for this Agreement, and Contractor acknowledges that it is not owed any further compensation for Work it performed while this Agreement was assigned to TPC under Contract 1300.

5. Compensation for Additional Work and Delays

Contract Appendix 1 - Schedule of Price is amended to increase the Contract Amount \$2,095,084.82 to compensate Contractor for the Additional Work, delays, and replenishment described above, as follows:

CM4	Replenishment (for payment of retention owed under Central Subway Project Contract 1300)	\$ 705,407.80
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CM4	Additional Work - NCT Train Tracking	\$ 392,992.43
CM4	Delay – Construction Delay	\$ 600,000.00
CM4	Delay – YBM Substation	\$ 255,563.95
CM4	Delay – Work Zone Violation	\$ 141,120.64
	Subtotal for Fourth Amendment	\$ 2,095,084.82
	CN 1266-2 Contract Amount as modified by the First, Second and Third Amendments	\$27,730,300.40
	Modified CN 1226-2, including this Fourth Amendment	\$29,825,385.22

6. Warranty Period.

The following Section 5.4 is added to the Agreement to clarify ATCS Substantial Completion and the Term of the Agreement:

5.4 Substantial Completion. ATCS Substantial Completion for the Central Subway was achieved on August 30, 2022, when Contractor completed Revenue Service Release testing of Build 4.0 Revenue Release (PCC006.4, Item A1200) on August 30, 2022. The Central Subway ATCS was capable of being used in Revenue Service as of that date. In accordance with Section 10.a of the Agreement, the three-year Warranty Period therefore commenced on August 30, 2022, and will expire on August 30, 2025.

7. Summary of Changes to Contract Amount and Term

a. Contract Term.

First Amendment – Contract Reassignment	1840 Days
First Amendment	0 Days added
Second Amendment	0 Days added
Third Amendment	670 Days added
Fourth Amendment	123 Days added
Amended Contract Term	2633 Total Days (Expiring August 30, 2025)

b. Contract Amount

Contract 1266-2 (Under CN-1300)	\$21,454,079.00
Payments by SFMTA to CN1300 and	(\$7,054,078.00)

remitted to Hitachi	
First Amendment - Contract Reassignment of remaining contract amount	\$14,400,001.00
Second Amendment	\$498,555.80
Third Amendment	\$12,831,743.60
Fourth Amendment	\$ 2,095,084.82
Amended Contract Amount	\$29,825,385.22

8. Changes Limited and Express. This Contract Modification is made in accordance with Section 14.36 of the Contract. Except as specifically stated in this Contract Modification, all other terms and conditions of the Contract remain unchanged and are in full force and effect. Any modification of the Contract must be express and in conformance with the General Provisions and Special Provisions of the Contract.

9. Effective Date. The Effective Date of this Fourth Amendment shall be January 25, 2024, conditioned upon the approval of this Fourth Amendment by the SFMTA Board of Directors and the San Francisco Board of Supervisors.

10. Claims Release. The compensation set forth in this Contract Modification comprises the total compensation due to Contractor for all costs for the Additional Work described in this Contract Modification No. 4. The execution of this Contract Modification constitutes an accord and satisfaction of any and all claims for the Additional Work described in this Contract Modification No. 4. The Delay Compensation stated in Section 2, above, is full satisfaction and accord for all claims that Contractor has brought or may ever bring concerning interference with Contractor's performance of ATCS Services (Delay Claims), known and unknown, that arise up to and including the Effective Date of this Contract Modification No. 4, and Contractor waives all such Delay Claims. The Delay Compensation fully compensates Contractor for all costs and damages that it has incurred or may incur, including but not limited to all escalation costs for labor, materials, equipment storage costs, costs related to extension of warranties and licenses, labor inefficiencies, schedule impacts, overhead, and all other costs and impacts of every kind that directly or indirectly arise from or are related to delay to or interference with Contractor's performance up to and including the Effective Date of this Contract Modification No. 4.

End of Fourth Amendment. Signatures are on following page.

IN WITNESS WHEREOF, SFMTA and Contractor have executed this Fourth Amendments of the date first referenced above.

<p>Approved:</p> <p>San Francisco Municipal Transportation Agency</p> <hr/> <p>Jeffrey P. Tumlin Director of Transportation</p> <p>Authorized By:</p> <p>Municipal Transportation Agency Board of Directors Resolution No: _____</p> <p>Adopted: _____</p> <p>Attest: _____ Secretary, Board of Directors</p> <p>Board of Supervisors</p> <p>Resolution No: _____</p> <p>Adopted: _____</p> <p>Attest: _____ Clerk of the Board</p> <p>Approved as to Form: David Chiu City Attorney By:</p> <hr/> <p>David F. Innis Deputy City Attorney</p>	<p>Approved:</p> <p>Hitachi Rail GTS USA Inc.</p> <hr/> <p>Ziad Rizk President and CEO</p> <p>City vendor number: 0000009815</p>
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