

## CONTRACT MODIFICATION No. 01

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

**Consultant:** Thales Transport & Security, Inc.  
5500 Corporate Drive, Suite 500  
Pittsburgh, PA 15237

### **Contract Modification No. 01 – Early Re-Assignment of ATCS Implementation Work**

1. **Summary and Purpose.** The Parties execute this Contract Modification No. 1 to amend Contract No. 1266-2 to: (a) affirm the early reassignment of this Contract from Tutor Perini Corporation (TPC) to the SFMTA; (b) to establish a contract value for remaining re-assigned ATCS Implementation Work; and. (c) to memorialize agreement of the parties that potential cost and time issues pre-dating and unrelated to the early reassignment will be dealt with in a separate, future contract modification(s).
2. **Background.**
  - a. Contract 1266-2 ("ATCS Implementation Contract") between the SFMTA and Thales establishes the rights and obligations of the parties for the design, implementation, installation oversight, and testing of the ATCS for the Central Subway ("ATCS Implementation Work").
  - b. The SFMTA awarded Contract 1300 to TPC in May 2013 to construct the Central Subway stations, trackway and systems. Contract 1266-2 provided that the SFMTA would assign Contract 1266-2 to TPC for Thales to perform ATCS Implementation Work as a subcontractor to TPC. On April 8, 2014, the SFMTA assigned Contract No. 1266-2 to TPC for Thales to commence performance of its ATCS Implementation Work as a subcontractor to TPC. Contract 1300 and Contract 1266-2 further provided that TPC would re-assign Contract 1266-2 back to the SFMTA at Final Acceptance of Contract 1300 or upon commencement of Revenue Service, and thereafter Thales would fulfill its warranty obligations directly for the SFMTA.
  - c. Disagreements arose between TPC and Thales regarding ATCS design, schedule and coordination. To mitigate any potential impact or delay to the Project caused by the disagreements, the SFMTA notified TPC that it would exercise its right under Contract 1300 to implement a partial termination for convenience of Thales' ATCS design, system testing and equipment procurement, so that Thales would no longer be a subcontractor to TPC, but would perform ATCS work directly for the SFMTA. Construction-related ATCS Work to be performed by TPC was not terminated and remains under Contract No. 1300. This action effected an early reassignment of Contract 1266-2 from TPC back to the SFMTA. In a letter dated January 31, 2019, Thales confirmed it had no objection to that early reassignment of Contract 1266-2.
  - d. On February 28, 2019, the SFMTA certified Contract Modification No. 093 to Contract No. 1300 effectuating the termination for convenience of ATCS Implementation Work under Contract No. 1266-2. This Contract Modification memorializes and confirms that reassignment of Contract 1266-2, which will allow the SFMTA to create an administrative account for payment to Thales for the services it has performed and will perform under the reassigned Contract 1266-2.
3. **Contract 1266-2 is amended as set out below.**
  - a. **Reassignment of Contract.** Section 6.12 is deleted and replaced in its entirety as follows:

6.12 Reassignment of Contract to City: By Contract Modification 93 to the Construction Contract (Contract 1300, Construction of Central Subway Stations, Trackway and System) with Tutor Perini Corporation, dated February 28, 2019, the SFMTA partially terminated ATCS Work under Contract 1300, and directed that Contract 1266-2 be reassigned to the SFMTA, and that the Work Thales shall perform under Contract 1266-2 be provided directly to the SFMTA. Thales

In Witness Whereof, the parties have executed this Modification in San Francisco, California as of this day 3<sup>rd</sup> of December, 2019.

**THALES TRANSIT & SECURITY, INC.**

By:

\_\_\_\_\_  
Duncan Lewis  
CEO  
Thales Transport & Security, Inc.

**CITY AND COUNTY OF SAN FRANCISCO**

By:

\_\_\_\_\_  
Tom Maguire  
Interim Director of Transportation  
San Francisco Municipal Transportation Agency

**APPROVED AS TO FORM:**

By:

\_\_\_\_\_  
Robert K. Stone  
Deputy City Attorney  
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|      |  | SUBTOTALS         | SOV by elements   | Percent Complete | Paid to Date     | Remaining Amount  |
|------|--|-------------------|-------------------|------------------|------------------|-------------------|
| 1    | NTP  | 495,774           | 495,774           | 100%             | 495,774          | 0                 |
| 2    | Initial Submittals   | 778,482           | 778,482           | 100%             | 778,482          | 0                 |
| 3    | Preliminary Design   | 2,075,952         | 2,075,952         | 100%             | 2,075,952        | 0                 |
| 4    | Intermediate Design  | 3,113,928         |                   |                  | 2,531,771        | 582,157           |
| 4.1  | AZLM Test results  |                   | 896,983           | 85%              | 762,436          |                   |
| 4.2  | Interface Control Document                                   |                   | 643,943           | 85%              | 547,352          |                   |
| 4.3  | Safety Related Design Assumptions                            |                   | 129,747           | 68%              | 88,228           |                   |
| 4.4  | Description of Safety Assurance Concepts and Program         |                   | 247,411           | 85%              | 210,299          |                   |
| 4.5  | Description of overall ATCS System                           |                   | 129,747           | 68%              | 88,228           |                   |
| 4.6  | Standards used to design Vital ATCS Software                 |                   | 129,747           | 85%              | 110,285          |                   |
| 4.7  | Preliminary Hazard Analysis                                  |                   | 518,988           | 85%              | 441,140          |                   |
| 4.8  | Intermediate Design Review Package                           |                   | 417,362           | 68%              | 283,806          |                   |
|      |  |                   | 3,113,928         |                  |                  |                   |
| 5    | Final Design   | 2,594,940         |                   |                  | 703,708          | 1,891,232         |
| 5.1  | Recommended Spare Parts List                                 |                   | 129,747           | 68%              | 88,228           |                   |
| 5.2  | Testing and Startup Program Plan                             |                   | 247,411           | 68%              | 168,239          |                   |
| 5.3  | Standards used to design Class 1 Hardware                    |                   | 129,747           | 85%              | 110,285          |                   |
| 5.4  | Fault Tree Analysis  |                   | 518,988           | 0%               | 0                |                   |
| 5.5  | ATCS Reliability Analysis                                    |                   | 247,762           | 68%              | 168,478          |                   |
| 5.6  | Maintainability Analysis                                     |                   | 247,762           | 68%              | 168,478          |                   |
| 5.7  | Schematic Drawing of ATCS Room Equipment                     |                   | 518,988           | 0%               | 0                |                   |
| 5.8  | Room Layout Drawings   |                   | 403,796           | 0%               | 0                |                   |
| 5.9  | Final Design Review Package                                  |                   | 150,740           | 0%               | 0                |                   |
|      |  |                   | 2,594,940         |                  |                  |                   |
| 6    | FAT Complete   | 2,366,271         |                   |                  | 0                | 2,366,271         |
| 6.1  | Release BOM for Procurements                                 |                   | 389,173           | 0%               | 0                |                   |
| 6.2  | Test Lab Available   |                   | 235,630           | 0%               | 0                |                   |
| 6.3  | Complete Flow Diagrams, Functional Block Diagrams            |                   | 494,274           | 0%               | 0                |                   |
| 6.4  | FMECA of Class 1 Hardware                                    |                   | 494,274           | 0%               | 0                |                   |
| 6.5  | FAT Test Results   |                   | 752,919           | 0%               | 0                |                   |
|      |  |                   | 2,366,271         |                  |                  |                   |
| 7    | Hardware Procurement   | 2,912,783         |                   |                  | 468,391          | 2,444,392         |
| 7.1  | Rack Layout Drawings   |                   | 235,630           | 0%               | 0                |                   |
| 7.2  | Equipment Arrangement Drawings                               |                   | 394,272           | 0%               | 0                |                   |
| 7.3  | Power Distribution Drawings and power Calculations           |                   | 394,274           | 68%              | 268,107          |                   |
| 7.4  | Wire Routing Diagrams  |                   | 389,173           | 0%               | 0                |                   |
| 7.5  | Equipment Plans and Installation Drawings                    |                   | 494,274           | 0%               | 0                |                   |
| 7.6  | Circuit Plans for all I/O functions                          |                   | 235,630           | 0%               | 0                |                   |
| 7.7  | Schematics of new Hardware Components                        |                   | 298,271           | 0%               | 0                |                   |
| 7.8  | Shop Drawings for all Equipment                              |                   | 235,630           | 0%               | 0                |                   |
| 7.9  | Foundation, Grounding Arrangements                           |                   | 235,630           | 85%              | 200,285          |                   |
|      |  |                   | 2,912,783         |                  |                  |                   |
| 8    | Deliver Hardware   | 3,425,424         |                   |                  | 0                | 3,425,424         |
| 8.1  | Deliver Hardware   |                   | 3,425,424         | 0%               | 0                |                   |
| 9    | Installation, Software                                       | 2,580,868         |                   |                  | 0                | 2,580,868         |
| 9.1  | Installation Procedures                                      |                   | 448,444           | 0%               | 0                |                   |
| 9.2  | Preventative Maintenance Plan                                |                   | 212,067           | 0%               | 0                |                   |
| 9.3  | Guideway Correspondence Testing                              |                   | 270,073           | 0%               | 0                |                   |
| 9.4  | PICO Test results  |                   | 448,444           | 0%               | 0                |                   |
| 9.5  | Operating and Maintenance Manuals                            |                   | 212,067           | 0%               | 0                |                   |
| 9.6  | ATCS Reliability Demonstration Test Plan                     |                   | 132,067           | 0%               | 0                |                   |
| 9.7  | ATCS Maintainability Demonstration Test Plan                 |                   | 157,195           | 0%               | 0                |                   |
| 9.8  | Book of Plans for each Train Control Room                    |                   | 350,256           | 0%               | 0                |                   |
| 9.9  | Book of Plans for each Central Control Equipment Room        |                   | 350,256           | 0%               | 0                |                   |
|      |  |                   | 2,580,868         |                  |                  |                   |
| 10   | Start up & Testing   | 2,220,059         |                   |                  | 0                | 2,220,059         |
| 10.1 | as built drawings for train control rooms                    |                   | 681,204           | 0%               | 0                |                   |
| 10.2 | as built drawings for central control equipment room         |                   | 681,204           | 0%               | 0                |                   |
| 10.3 | SAT test reports   |                   | 857,652           | 0%               | 0                |                   |
|      |  |                   | 2,220,059         |                  |                  |                   |
| 11   | Substantial Completion                                       | 1,235,686         |                   |                  | 0                | 1,235,686         |
| 11.1 | System Integration Tests Completed                           |                   | 494,274           | 0%               | 0                |                   |
| 11.2 | System Integration test reports Draft                        |                   | 494,274           | 0%               | 0                |                   |
| 11.3 | SFMTA training completed                                     |                   | 247,137           | 0%               | 0                |                   |
|      |  |                   | 1,235,686         |                  |                  |                   |
| 12   | Final Acceptance   | 988,549           |                   |                  | 0                | 988,549           |
| 12.1 | Final system integration test reports                        |                   | 494,274           | 0%               | 0                |                   |
| 12.2 | Successful completion of reliability demonstration test plan |                   | 494,274           | 0%               | 0                |                   |
|      |  |                   | 988,549           |                  |                  |                   |
|      | <b>Total</b>   | <b>24,788,716</b> | <b>24,788,716</b> | <b>n/a</b>       | <b>7,054,079</b> | <b>17,734,637</b> |

1266-1 3,425,424  
1266-2 21,363,292

Contract 1266-1 -3,425,424  
CMOD 073 90,787  
New Contract 1266-2 Amount 14,400,000