

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

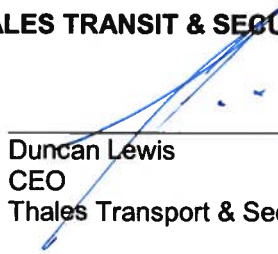
1. **Summary and Purpose.** The Parties execute this Contract Modification No. 1 to amend Contract No. 1266-2 to: (a) affirm the early reassignment of this Contract from Tutor Perini Corporation (TPC) to the SFMTA; (b) to establish a contract value for remaining re-assigned ATCS Implementation Work; 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 3rd of December, 2019.

THALES TRANSIT & SECURITY, INC.

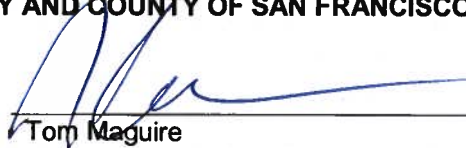
By:



Duncan Lewis
CEO
Thales Transport & Security, Inc.

CITY AND COUNTY OF SAN FRANCISCO

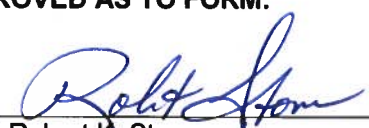
By:



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	
9.1	Installation Procedures		448,444	0%	0	2,580,868
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			
	Total	24,788,716	24,788,716	n/a	7,054,079	17,734,637

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

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