

**THIS PRINT COVERS CALENDAR ITEM NO.: 10.3**

**SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY**

**DIVISION:** Finance and Information Technology

**BRIEF DESCRIPTION:**

Approving Contract No. SFMTA-2019-49, West Portal Optimization and Crossover Activation Services with Thales Transport and Security, Inc. for a term of 12 months and a contract amount not to exceed \$6,260,000 to provide ATCS system engineering and configuration, software updates, testing services, and equipment to implement train control for a new crossover in the Twin Peaks Tunnel, to improve service for the West Portal.



**SUMMARY:**

- In 1992, SFMTA awarded Contract No. MR-1034R to Alcatel Transport Automation (U.S.), Inc. (Alcatel), Thales' predecessor, to design and install the Automatic Train Control System (ATCS).
- The Automatic Train Control System went into full revenue service in 1998.
- Under the proposed contract, as part of the West Portal Optimization and Crossover Activation Project, Thales will provide system engineering, configuration and testing services to implement train control for a new crossover in the Twin Peaks Tunnel, to reduce train turnback time and improve service for the West Portal.
- On April 6, 2019, the Director of Transportation authorized sole source negotiations with Thales for the services, as Thales is the only provider for this proprietary ATCS software and equipment, and related professional services.
- Federal and State sources are providing funds for the work.

**ENCLOSURES:**

1. SFMTAB Resolution
2. SFMTA Contract No. SFMTA-2019-49 West Portal Optimization and Crossover Activation Services with Thales

**APPROVALS:**

	<b>DATE</b>
DIRECTOR 	June 11, 2019
SECRETARY 	June 11, 2019

**ASSIGNED SFMTAB CALENDAR DATE:** June 18, 2019

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### **PURPOSE**

To approve No. SFMTA-2019-49 for West Portal Optimization and Crossover Activation Services with Thales Transport and Security, Inc. for a term of 12 months and a contract amount not to exceed \$6,260,000 to provide ATCS system engineering and configuration, software updates, testing services, and equipment to implement train control for a new crossover in the Twin Peaks Tunnel, to improve service for the West Portal.

### **STRATEGIC PLAN GOALS AND TRANSIT FIRST POLICY PRINCIPLES**

This item supports the following Strategic Plan Goals:

Goal 1: Create a safer transportation experience for everyone.

Objective 1.2 Improve the safety of the transportation system.

Goal 2: Make public transportation the preferred means of travel in San Francisco.

Objective 2.1 Improve transit performance.

### **DESCRIPTION**

In August 1992, Alcatel Transport Automation (U.S.), Inc. (Alcatel), Thales' predecessor, designed and installed the Automatic Train Control System (ATCS) under San Francisco Municipal Railway Contract No. MR-1034R. The ATCS has been in revenue service since 1998. The ATCS is a specialized system critical to the functioning and control of the City's public transit system. The ATCS controls the routing, speed, headway, safe separation, and braking of trains when they are in the underground. The ATCS also provides location and arrival prediction data for passenger information systems. The ATCS is a custom system that operates proprietary hardware and software designed and originally provided by Alcatel. The SMFTA has invested over \$150 million in the ATCS and improvements to the ATCS over that past 20 years.

The SFMTA seeks ATCS system engineering, software updates and configuration, testing services and equipment from Thales to implement train control for a new crossover in the Twin Peaks Tunnel, which will improve service for the West Portal. Thales will provide updates to the ATCS software and elements of the wayside infrastructure and will activate the newly installed W1 crossover just east of West Portal station. Thales will provide these updates in two software releases that will be separately factory and site tested. The first release will implement low level functionality to allow a train to be routed by Central Control Operators through the interlock to turn back at West Portal station inbound platform. The second release will add an additional level of automatic train routing functionality.

The ATCS software and equipment are proprietary to Thales, so any required system updates and development of additional ATCS features and functions, and integration with new planned systems to meet SFMTA evolving business needs can only be obtained from Thales.

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This Contract was procured in accordance with federal requirements for sole source contracts.

There is no Small Business Entity (SBE) subcontracting participation requirement for this Contract.

## **STAKEHOLDER ENGAGEMENT**

The West Portal Optimization and Crossover Activation's Project Manager has been engaged with internal stakeholders in the Transit division discussing potential implications to their services and devising least impacting solutions. The added switch and additional ATCS functions will improve on the Muni Metro West Portal service, which will lead to improved service on all subway lines. No new service stops will be added or removed. No construction will occur that will impact the West Portal neighborhood. The Transit division is in agreement with this project.

## **ALTERNATIVES CONSIDERED**

The ATCS and its components, including software, are a proprietary technology of Thales Transport & Security, Inc. ATCS equipment, software, and specialized technical service can be procured only from Thales; there is no other supplier.

The alternative to issuing Contract No. 2019-49 is to not implement any enhancements, which will result in West Portal trains continuing to exit the subway to turn around at West Portal and Ulloa or farther away at St. Francis Circle. If the enhancements are not completed, the Agency will be unable to implement three-car West Portal service, because surface turn-backs can only handle two-car trains. More three car trains in the Muni Metro subway increases capacity without increasing the number of trains in the subway, thereby improving service and reducing congestion.

## **FUNDING IMPACT**

The West Portal Optimization and Crossover Activation is expected to cost \$6,260,000 and is being funded by capital funds as follows:

- Federal Transit Administration (FTA) State of Good Repair 5337: \$2.97M,
- Metropolitan Transportation Commission (MTC) AB664 Bridge Toll Funds: \$1.53M,
- Caltrans Low Carbon Transit Operations Program (LCTOP): \$1.76M

Funding for this contract has been secured.

## **ENVIRONMENTAL REVIEW**

On May 17, 2019, the SFMTA, under authority delegated by the Planning Department, determined that the West Portal Optimization and Crossover Activation contract approval is not defined as a "project" under the California Environmental Quality Act (CEQA) pursuant to Title

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14 of the California Code of Regulations Sections 15060(c) and 15378(b).

A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors and is incorporated herein by reference.

**OTHER APPROVALS RECEIVED OR STILL REQUIRED**

Personal Services Contract (PSC) #43148-18/19 has been approved by the Civil Service Commission (CSC) on 1/7/19.

The City Attorney has reviewed this item.

Thales Transport and Security, Inc. has approved the agreement.

**RECOMMENDATION**

Staff recommends that the SFMTA Board of Directors approve Contract No. SFMTA-2019-49, West Portal Optimization and Crossover Activation Services, with Thales Transport and Security, Inc. for a term of 12 months and a contract amount not to exceed \$6,260,000 to provide ATCS system engineering and configuration, software updates, testing services, and equipment to implement train control for a new crossover in the Twin Peaks Tunnel, to improve service for the West Portal.

SAN FRANCISCO  
MUNICIPAL TRANSPORTATION AGENCY  
BOARD OF DIRECTORS

RESOLUTION No. \_\_\_\_\_

WHEREAS, In August 1992, Alcatel Transport Automation (U.S.), Inc. ("Alcatel"), Thales' predecessor, designed and installed the Automatic Train Control System (ATCS) under San Francisco Municipal Railway Contract No. MR-1034R; and,

WHEREAS, The ATCS is a specialized system critical to the functioning and control of the light rail vehicles, controlling vehicle routing, speed, headway, safe separation, and braking of trains in the subway; and,

WHEREAS, The ATCS also provides location and arrival prediction data for passenger information systems; and,

WHEREAS, The ATCS is a custom system that operates using proprietary hardware and software available only from Thales; and,

WHEREAS, The Automatic Train Control System went into full revenue service in 1998; and,

WHEREAS, The SFMTA seeks to update the functionality of the ATCS by obtaining from Thales specialized ATCS-specific technical services, equipment and software upgrades; and,

WHEREAS, Under the West Portal Optimization and Crossover Activation Project, Thales will provide specialized services relating to the signaling of a new crossover in the Twin Peaks tunnel to provide enhanced service for the West Portal shuttle; and,

WHEREAS, Thales will provide updates to the ATCS software and elements of the wayside infrastructure and activate the newly installed W1 crossover just east of West Portal station; and,

WHEREAS, Thales will provide these updates in two software releases that will be separately factory and site tested; and,

WHEREAS, The first release will implement low level functionality to allow a train to be routed by CCOs through the interlock to turn back at West Portal station inbound platform; and,

WHEREAS, Due to the proprietary nature of Thales products implemented at SFMTA, any required system update, as well as, development of new features and functionalities, and successful integration with new planned systems to meet our evolving business needs will require direct involvement of Thales; and,

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WHEREAS, Thales will provide these updates in two software releases that will be factory and site tested separately; and,

WHEREAS, This Contract was procured in accordance with federal requirements for sole source contracts; and,

WHEREAS, On May 17, 2019, the SFMTA, under authority delegated by the Planning Department, determined that the West Portal Optimization and Crossover Activation contract approval is not defined as a “project” under the California Environmental Quality Act (CEQA) pursuant Title 14 of the California Code of Regulations Sections 15060(c) and 15378(b); and,

WHEREAS, A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors, and is incorporated herein by reference; and,

RESOLVED, That the SFMTA Board of Directors approves Contract No. SFMTA-2019-49, West Portal Optimization and Crossover Activation Services, with Thales Transport and Security, Inc. for a term of 12 months and a contract amount not to exceed \$6,260,000 to provide ATCS system engineering and configuration, software updates, testing services, and equipment to implement train control for a new crossover in the Twin Peaks Tunnel, to improve service for the West Portal shuttle.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of June 18, 2019.

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Secretary to the Board of Directors  
San Francisco Municipal Transportation Agency

**City and County of San Francisco  
Municipal Transportation Agency  
One South Van Ness Ave., 7<sup>th</sup> Floor  
San Francisco, California 94103**

**Agreement between the City and County of San Francisco and  
Thales Transport and Security, Inc.  
for West Portal Optimization and Crossover Activation Services**

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**City and County of San Francisco  
Municipal Transportation Agency  
One South Van Ness Ave., 7<sup>th</sup> Floor  
San Francisco, California 94103**

**Agreement between the City and County of San Francisco and  
Thales Transport and Security, Inc.  
West Portal Optimization and Crossover Activation Services**

**Contract No. SFMTA-2019-49  
Contracts & Procurement Office] (FTA)**

This Agreement between the City and County of San Francisco and Thales Transport & Security, Inc. for West Portal Optimization and Crossover Activation Services (Agreement), dated for convenience as June 19, 2019 is made and shall be performed in the City and County of San Francisco, State of California, by and between Thales Transport & Security, Inc., (Thales or Contractor), a corporation organized and existing under the laws of the State of Delaware, whose principal place of business is at 5500 Corporate Drive, Suite 500, Pittsburgh, PA 15237, U.S .A., and the City and County of San Francisco (City), a municipal corporation organized and existing under the laws of the State of California, acting by and through its Municipal Transportation Agency (SFMTA), whose principal place of business is at 1 South Van Ness Avenue, San Francisco, California 94102, U.S.A.

**Recitals**

- A.** The SFMTA's Advanced Train Control System ("ATCS") is a proprietary system that was supplied to the SFMTA by Thales (formerly Alcatel Transport Automation (U.S.) Inc.) under San Francisco Municipal Railway contract MR 1034R, dated August 10, 1992.
- B.** The ATCS is a specialized system critical to the functioning and control of the City's public transit system that requires upgrades, improvements and expansion of the ATCS software and hardware to meet current and future SFMTA needs. Due to the proprietary nature of the ATCS, no vendor other than Thales can supply the services required by this Agreement, and this Agreement is necessarily therefore a sole source contract.
- C.** Thales will update ATCS software and elements of the wayside infrastructure in the Twin Peaks Tunnel to activate the newly installed W1 crossover just east of West Portal station. Thales will provide the updates in two software releases that will be separately designed and tested. The first release will implement low level functionality to allow a train to be routed by CCOs through the interlock to turn back at West Portal station inbound platform. The second release will add an additional level of automatic train routing functionality. Thales will provide professional services to deliver SFMTA requirements, as further described in this document and Appendix A (Scope of Services).

- D.** SFMTA will separately procure and manage construction work to install new inductive loop, install axle counter heads on the track, and design and build conduit and cabling to relocated ATCS equipment in the tunnel.
- E.** This Agreement is a sole source procurement, because the ATCS and its constituent software and equipment is proprietary to Thales.
- F.** There is no Small Business Entity (SBE) subcontracting participation requirement for this Agreement.
- G.** Contractor represents and warrants that it is qualified to perform the Services required by City as set forth under this Agreement.
- H.** The Civil Service Commission approved this agreement under Contract number #43148-18/19 on 01/07/2019.

**Now, THEREFORE, in consideration of the facts recited above, the premises and the mutual undertakings of the Parties herein contained, the parties agree as follows:**

### **Article 1      Definitions**

The following definitions (and the terms defined in the Appendices) apply to this Agreement:

- 1.1** “Agreement” means this contract document, including all attached appendices, and all applicable City Ordinances and Mandatory City Requirements that are specifically incorporated into this Agreement by reference as provided herein.
- 1.2** “ATCS” means the Advanced Train Control System provided by Thales under the 1992 Contract as it is configured and operates as of the Effective Date of this Agreement and as it will be configured and operated under this Agreement and subsequent agreements between the Parties.
- 1.3** “CCO” means SFMTA Contract Compliance Office.
- 1.4** “City” or "the City" means the City and County of San Francisco, a municipal corporation.
- 1.5** “CMD” means the Contract Monitoring Division of the City.
- 1.6** “Confidential Information” means any and all information, whether disclosed orally, visually, in machine-readable or written form, that the disclosing Party identifies as proprietary or confidential in writing at the time of disclosure or is subsequently specified and confirmed in writing by the disclosing Party at the latest within thirty (30) Days following oral and/or visual disclosure. The Documentation, Software and Software Updates and Software Upgrades are Confidential Information.
- 1.7** “Contract Administrator” means the contract administrator assigned to the Contract by the SFMTA, or his or her designated agent.

**1.8** “Covered Services” means Services performed by persons in job classifications covered by prevailing wage statutes and ordinances.

**1.9** “Thales” means Thales Transport & Security, Inc.

**1.10** “C&P” means SFMTA Contracts and Procurement.

**1.11** “Days” means consecutive calendar days, including weekends and holidays, unless otherwise specified.

**1.12** “Deliverables” means Thales's work product resulting from the Services that are provided by Thales to City during the course of Thales's performance of the Agreement, including without limitation, the work product described in the "Scope of Services" attached as Appendix A.

**1.13** “Director” means the Director of Transportation, the department head of the San Francisco Municipal Transportation Agency.

**1.14** “Documentation” means any plans, layouts, designs, diagrams, blue prints, specifications, reports, instruction manuals, consisting of the user documentation, maintenance documentation and Equipment and Software documentation Thales shall provide the SFMTA under this Agreement that reveal aspects of the ATCS that are proprietary to Thales.

**1.15** “Effective Date” means the date when i) authorized officers of both Parties have executed this Agreement; and ii) the SFMTA has certified to the availability of funds for the Services requested under this Agreement and Thales has been so notified in writing.

**1.16** “Equipment” (also referenced as Proprietary Equipment) means the ATCS hardware, computers, servers, and other A TCS components, diagnostic and simulation tools, spare parts and other parts and electronic, mechanical or electrical components Thales has provided or is contracted to provide to the SFMTA as part of the ATCS.

**1.17** “Force Majeure” means any act of God or any other cause beyond a Party's control (including, but not limited to, any restriction, strike, lock-out, plant shutdown, material shortage, delay in transportation or delay in performance by its suppliers or subcontractors for any similar cause).

**1.18** “Included Appendices” are those documents attached to the Agreement, listed above the signature page, and that are incorporated into this Agreement by reference.

**1.19** “Mandatory City Requirements” means those City laws set forth in the San Francisco Municipal Code, including the duly authorized rules, regulations, and guidelines implementing such laws, that impose specific duties and obligations upon Thales.

**1.20** “Milestone” means the completion of specified Work, Tasks or subtasks identified and described in the Agreement to which a completion date/time and payment obligation has been established in the Agreement.

**1.21** “Party” and “Parties” mean the City and Thales either collectively or individually.

**1.22** “Problem” means any disturbance or malfunction of Equipment and/or Software of SFMTA's ATCS or unsafe operation of a rail transit vehicle caused by the ATCS.

**1.23** “Project Manager” means the project manager assigned to the Contract for the SFMTA, or his or her designated agent.

**1.24** “Small Business Enterprise” or “SBE” means a for-profit, small business concern owned and controlled by a socially and economically disadvantaged person(s) as defined in 49 Code of Federal Regulations (CFR) Section 26.5.

**1.25** “Services” means the work performed by Thales under this Agreement as specifically described in the “Scope of Services” attached as Appendix A, including all services, labor, supervision, materials, equipment, actions and other requirements to be performed and furnished by Thales under this Agreement.

**1.26** “San Francisco Municipal Transportation Agency” or “SFMTA” means the agency of City with jurisdiction over all surface transportation in San Francisco, as provided under Article VIIIA of the City's Charter.

**1.27** “Site(s)” means the premises at the location(s) at the SFMTA where the Equipment and or Software are installed.

**1.28** “Software” (also referenced as Proprietary Software or Licensed Software) means the ATCS software licensed under the 1992 Contract or which Thales has since licensed or is contracted to license to the SFMTA as part of the ATCS, whether as a stand-alone product or pre-installed on Equipment.

**1.29** “Software Update” means a Software correction without change of features or functions of the Software.

**1.30** “Software Upgrade” means an enhancement by new features or functions of the Software.

**1.31** “Substantial Completion” means the state in progress of the Work at which time the Work is functionally complete, has passed all required testing, the SFMTA may use the Work in revenue service, and remaining Work is minor, and will not interfere with the SFMTA’s use of the Work.

**1.32** “Systems Manager” means the individual designated by City to be the primary liaison to Thales for the purposes of this Agreement.

**1.33** “Thales Affiliate” means a company which controls, is controlled by a socially, or is under the common control with Thales, but only for as long as such control exists; for the purposes of this clause, control is deemed to exist when the company in question has the authority, directly or indirectly through one or more intermediaries, to direct or utilize the voting rights of more than 50% of the stock entitled to vote for directors, general managers or persons performing a similar function, whereby such authority may exist by ownership of such stock or by contract.

When appropriate herein, SFMTA and Thales are individually referenced as "Party" and collectively referenced as "Parties".

## **Article 2 Term of the Agreement**

The term of this Agreement shall commence on the Effective Date and shall expire twenty-four months thereafter, unless earlier terminated as otherwise provided herein or extended by a contract modification.

## **Article 3 Financial Matters**

**3.1 Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation.** This Agreement is subject to the budget and fiscal provisions of the City’s Charter. Charges will accrue only after prior written authorization certified by the Controller in the form of a Purchase Order, and the amount of City’s obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor’s assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

**3.2 Guaranteed Maximum Costs.** The City’s payment obligation to Contractor cannot at any time exceed the amount certified by City’s Controller for the purpose and period



stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 13.5 (Modification of this Agreement).

### **3.3 Compensation.**

**3.3.1 Amount.** Compensation under this Agreement shall not exceed Six Million Two-Hundred Sixty Thousand Dollars (\$6,260,000), as further described in Appendix B (Payment Schedule).

**3.4 Payment.** Contractor shall provide an invoice to the SFMTA on a monthly basis using the progress payment form described below, for Services completed in the immediately preceding month, unless a different schedule is set out in Appendix B (Milestone Payment Schedule), attached hereto and incorporated by reference as though fully set forth herein. Compensation shall be made for Services identified in the invoice that the Director of Transportation, or his or her designee, in his or her reasonable discretion, concludes has been satisfactorily performed. Payment shall be made within 30 calendar days of receipt of the invoice, unless the City notifies the Contractor that a dispute as to the invoice exists. In no event shall the amount of this Agreement exceed \$6,260,000. The breakdown of charges associated with this Agreement appears in Appendix B. In no event shall City be liable for interest or late charges for any late payments.

**3.4.1 Payment Limited to Satisfactory Services.** Contractor is not entitled to any payments from City until the SFMTA reasonably approves Services, including any furnished Deliverables, as satisfying all of the requirements of this Agreement. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory Deliverables, including equipment, components, materials, or Services even if the unsatisfactory character of such Deliverables, equipment, components, materials, or Services may not have been apparent or detected at the time such payment was made. Deliverables, equipment, components, materials and Services that do not conform to the requirements of this Agreement may be rejected by City and in such case must be repaired or replaced by Contractor without delay at no cost to the City.

**3.4.2 Withhold Payments.** If Contractor fails to provide Services in accordance with Contractor's obligations under this Agreement, the City may withhold any related payments due Contractor under this Agreement until such failure to perform is cured, and Contractor shall not stop work because of City's withholding of payments as provided herein.

**3.4.3 Invoice Format.** Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller and City and must include a unique invoice

number. Payment shall be made by City to Contractor at **the** electronic address specified in Section 13.1, or in such alternate manner as the Parties have agreed in writing.

- (a) Contract Number
- (b) Task Order Number
- (c) Description of the work performed, or services rendered; percentage completed of Task and subtask
- (d) Name, position, direct hourly rate and hours worked of employee(s) whose labor is invoiced
- (e) Other direct costs (if applicable)
- (f) Subcontractor costs supported by invoice itemization in the same format as described here (if applicable)
- (g) Fixed Fee for current invoice period and amount of Fixed Fee as of date of invoice. Fixed Fee will be calculated as a prorated portion of the total fixed fee for the Task for which Contractor seeks payment.
- (h) Total charges to SFMTA
- (i) SFMTA Form No. 6 – Progress Payment Report

**3.4.4 Progress Payment Form.** The Controller is not authorized to pay invoices submitted by Contractor prior to Contractor’s submission of the SFMTA Progress Payment Form. If the Progress Payment Form is not submitted with Contractor’s invoice, the Controller will notify the SFMTA and Contractor of the omission and will withhold payment until submitted.

**3.4.5 Not Used. (SBE Payment and Utilization Tracking System).**

**3.4.6 Electronic Payment.**

(a) The City shall issue payment to Thales electronically through the City’s Automated Clearing House (ACH) payments service/provider. Thales shall enroll in the City’s electronic payments system at [www.sfgov.org/ach](http://www.sfgov.org/ach).

(b) The following information is required to enroll for electronic payments: (i) The enroller must be their company’s authorized financial representative, (ii) the company’s legal name, main telephone number and all physical and remittance addresses used by the company, (iii) the company’s U.S. federal employer identification number (EIN) or Social Security number (if they are a sole proprietor), and (iv) the company’s bank account information, including routing and account numbers.

**3.5 Grant-Funded Contracts.**

**3.5.1 Disallowance.** If Contractor requests or receives payment from City for Services, reimbursement for which is later disallowed by the State of California or United States Government, Contractor shall promptly refund the disallowed amount to City upon City's request. At its option, City may offset the amount disallowed from any payment due or to become due to Contractor under this Agreement or any other Agreement between Contractor and City.

**3.5.2 FTA Requirements.** The funding for this Agreement is provided to the SFMTA in full or in part by a Federal or State grant. As part of the terms of receiving the funds for this Agreement, the SFMTA must incorporate some of the terms into this Agreement (Grant Terms). The Grant Terms are set out in "FTA Contract Requirements" attached as Appendix I are incorporated into this Agreement. If there is any conflict between the Grant Terms or other FTA requirements and any other terms and conditions of this Agreement, the FTA terms and conditions shall take precedence. As required by the Grant Terms, Contractor shall insert applicable provisions into each lower-tier subcontract. Contractor is responsible for compliance with the Grant Terms by any subcontractor, lower-tier subcontractor, or service provider.

**3.6 Audit and Inspection of Records.** Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not fewer than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts.

**3.7 Submitting False Claims.** The full text of San Francisco Administrative Code Chapter 21, Section 21.35, including the enforcement and penalty provisions, is incorporated into this Agreement. Pursuant to San Francisco Administrative Code §21.35, any contractor or subcontractor who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor or subcontractor will be deemed to have submitted a false claim to the City if the contractor or subcontractor: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently

discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

### **3.8 Payment of Prevailing Wages.**

**3.8.1 Covered Services.** The Services that Thales will perform under this Contract are not public works or construction work as those terms are defined in San Francisco Administrative Code Chapter 6 or in the California Public Works Code. Notwithstanding that purpose and intent of the parties and the nature of the Advanced Train Control System, the Work Thales will perform under this Contract may involve the performance of trade work covered by the provisions of San Francisco Administrative Code section 6.22(e) [Prevailing Wages] (collectively, Covered Services). The provisions of Section 6.22(e) of the Administrative Code are incorporated as provisions of this Contract as if fully set forth herein and will apply to any Covered Services performed by Thales and its subcontractor.

**3.8.2 Wage Rates.** The latest prevailing wage rates for private employment on public contracts as determined by the San Francisco Board of Supervisors and the Director of the California Department of Industrial Relations, as such prevailing wage rates may be changed during the term of this Contract, are hereby incorporated as provisions of this Contract. Copies of the prevailing wage rates as fixed and determined by the Board of Supervisors are available from the Office of Labor Standards and Enforcement (OLSE) and are also available on the Internet at <http://www.dir.ca.gov/DLSR/PWD>. Thales agrees that it shall pay not less than the prevailing wage rates, as fixed and determined by the Board, to all workers employed by Thales who perform Covered Services under this Contract. Thales further agrees as follows:

**3.8.3 Subcontract Requirements.** As required by Section 6.22(e)(5) of the Administrative Code, Thales shall insert in every subcontract or other arrangement, which it may make for the performance of Work, a provision that said subcontractor shall pay to all persons performing labor in connection with Covered Services under said subcontract or other arrangement not less than the highest general prevailing rate of wages as fixed and determined by the Board of Supervisors for such labor or services.

**3.8.4 Posted Notices.** As required by Section 1771.4 of the California Labor Code, Thales shall post job site notices prescribed by the California Department of Industrial Relations (DIR) at all job sites where Covered Services are to be performed.

**3.8.5 Payroll Records.** As required by Section 6.22(e)(6) of the Administrative Code and Section 1776 of the California Labor Code, Thales shall keep or cause to be kept complete and accurate payroll records for all trade workers performing Covered Services. Such records shall include the name, address and social security number of each worker who provided Covered Services on the project, including apprentices, his or her classification, a general description of the services each worker performed each day, the rate of pay (including rates of

contributions for, or costs assumed to provide fringe benefits), daily and weekly number of hours worked, deductions made and actual wages paid. Every subcontractor who shall undertake the performance of any part of Covered Services shall keep a like record of each person engaged in the execution of Covered Services under the subcontract. All such records shall at all times be available for inspection of and examination by the City and its authorized representatives and the DIR.

**3.8.6 3.8.6 Certified Payrolls.** Certified payrolls shall be prepared pursuant to Administrative Code Section 6.22(e)(6) and California Labor Code Section 1776 for the period involved for all employees, including those of subcontractor, who performed labor in connection with Covered Services. Thales and each subcontractor performing Covered Services shall submit certified payrolls to the City and to the DIR electronically. Thales shall submit payrolls to the City via the reporting System selected by the City. The DIR will specify how to submit certified payrolls to it. The City will provide basic training in the use of the reporting System at a scheduled training session. Thales and all subcontractor that will perform Covered Services must attend the training session. Thales and applicable subcontractor shall comply with electronic certified payroll requirements (including training) at no additional cost to the City.

**3.8.7 Compliance Monitoring.** Covered Services to be performed under this Contract are subject to compliance monitoring and enforcement of prevailing wage requirements by the DIR and /or the OLSE. Thales and any subcontractor performing Covered Services will cooperate fully with the DIR and/or the OLSE and other City employees and agents authorized to assist in the administration and enforcement of the prevailing wage requirements and agrees to take the specific steps and actions as required by Section 6.22(e)(7) of the Administrative Code. Steps and actions include but are not limited to requirements that: (A) Thales will cooperate fully with the Labor Standards Enforcement Officer and other City employees and agents authorized to assist in the administration and enforcement of the Prevailing Wage requirements and other labor standards imposed on Public Works Harris by the Charter and Chapter 6 of the San Francisco Administrative Code; (B) Thales agrees that the Labor Standards Enforcement Officer and his or her designees, in the performance of their duties, shall have the right to engage in random inspections of job sites and to have access to the employees of Thales, employee time sheets, inspection logs, payroll records and employee paychecks; (C) Thales shall maintain a sign-in and sign-out sheet showing which employees are present on the job site; (D) Thales shall prominently post at each job-site a sign informing employees that the project is subject to the City's Prevailing Wage requirements and that these requirements are enforced by the Labor Standards Enforcement Officer; and (E) that the Labor Standards Enforcement Officer may audit such records of Thales as he or she reasonably deems necessary to determine compliance with the Prevailing Wage and other labor standards imposed by the Charter and this Chapter on Public Works. Failure to comply with these requirements may result in penalties and forfeitures consistent with analogous provisions of the California Labor Code, including Section 1776(g), as amended from time to time.

**3.8.8 Remedies.** Should Thales, or any subcontractor who shall undertake the performance of any Covered Services, fail or neglect to pay to the persons who perform Covered Services under this Contract, subcontract or other arrangement for the Covered Services, the general prevailing rate of wages as herein specified, Thales shall forfeit, and in the case of any subcontractor so failing or neglecting to pay said wage, Thales and the subcontractor shall jointly and severally forfeit, back wages due plus the penalties set forth in Administrative Code Section 6.22 (e) and/or California Labor Code Section 1775. The City, when certifying any payment which may become due under the terms of this Contract, shall deduct from the amount that would otherwise be due on such payment the amount of said forfeiture.

#### **Article 4 Services and Resources.**

**4.1 Services Contractor Agrees to Perform.** Contractor agrees to perform the Services provided for in this Agreement, as generally described in Appendix A (Scope of Services). Officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Services beyond those Services listed in Appendix A, unless Appendix A is modified as provided in Section 13.5 (Modification of this Agreement).

**4.2 Time is of the Essence.** Time is of the essence in Contractor's performance of the Work under this Contract.

**4.3 Priority of Documents.** This Agreement and documents incorporated by reference shall be read All requirements of the RFP and the representations made in the Contractor's Proposal that are not in conflict with provisions of this Agreement are incorporated by reference and made an integral part of this Agreement as though fully set forth herein. With respect to any conflict or ambiguity between this Agreement and the RFP or Contractor's Proposal, this Agreement shall control except where the RFP or the Proposal refers to services not otherwise mentioned in this Agreement, in which case and to such extent the RFP or Proposal shall control. In case of conflict between the RFP and the Contractor's/Contractor's Proposal, the RFP shall govern. Documents listed as Appendices to this Agreement are incorporated by reference as though fully set forth herein.

**4.4 Information and Data.** The Contractor shall request in writing any information and data it will require to perform Task Orders. The Contractor shall identify the timing and priority for which this information and data will be required. The Contractor and City shall reach agreement as to the availability and delivery time for this data and information during initial Task negotiations.

**4.5 Presentations.** In the performance of assigned tasks, the Contractor, if requested by City, shall prepare graphic and written presentations, and participate in presentations of said

material to various City departments, commissions, and interested community groups. Provision of these presentation will be periodic and will not be considered a regular task (i.e. no greater than one per calendar month). If SFMTA determine a need for these presentations to become regular task, then a Change Order will be issue by SFMTA to address the increased work scope.

**4.6 Not Used (Key Personnel.)**

**4.7 Current Workload and Available Resources.** The Contractor covenants that its current workload and the workload of its Subcontractors will not affect the commencement and the progress of the work under this Agreement. The Contractor shall have all the necessary professional, technical and support personnellin place to support the project schedule.

**4.8 Transmittal of Work Product.** When requested by Agency’s Project Manager, and after completion of each Task and subtask, the Contractor shall transmit to Agency all Work Product (duplicates and originals) produced or accumulated in the course of its and its Subcontractors’ work on this Agreement. The Contractor’s Project Manager and Key Personnel shall have thoroughly reviewed and approved all Work Product and signed off as such prior to transmitting them to Agency.

**4.9 Not Used. (Reproduction of Work Product).**

**4.10 SFMTA Responsibilities Regarding Submittals.** The Agency will review and comment on Contractor’s submittals within two calendar weeks of submittal. The Agency and Contractor will establish a timetable of submittals and reviews in the initial coordination. The Agency’s review and comments of Contractor submittals shall in no way relieve the Contractor of its independent responsibility to perform its own quality checks and review, nor shall any comment or review by the Agency relieve the Contractor of its independent responsibility to provide submittals and deliverables in full compliance with local, state and federal codes, regulations and standards.

If Contractor considers certain Agency review comments or directives, either written or oral, to require work efforts not included in the approved Program Management/Implementation Plan, or in the event SFMTA and Contractor cannot reach agreement under 4.6.9, the Contractor shall provide Agency with either a written request for clarification of intended work or a proposal to proceed with additional work within ten (10) working days of discovering the perceived extra work, in strict accordance with the procedures specified subsection 4.5 above.

**Subcontracting.** Contractor may subcontract portions of the Services only upon prior written approval of City. Contractor is responsible for its Subcontractors throughout the course of the work required to perform the Services. All Subcontracts must incorporate the terms of Article 10 “Additional Requirements Incorporated by Reference” of this Agreement, unless inapplicable. Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void. The City approves the following Thales Affiliates

and Subcontractor: **Thales Canada**

**4.11 Independent Contractor; Payment of Employment Taxes and Other Expenses.**

**4.11.1 Independent Contractor.** For the purposes of this Article 4, “Contractor” shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor or any agent or employee of Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor’s performing services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor’s work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor’s compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing in accordance with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five business days of Contractor’s receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

**4.11.2 Payment of Employment Taxes and Other Expenses.** Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this



liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys' fees, arising from this section.

**4.12 Assignment.** The Services to be performed by Contractor are personal in character, and neither this Agreement nor any duties or obligations hereunder may be assigned or delegated by Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement. Any purported assignment made in violation of this provision shall be null and void.

**4.13 Warranty.** Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

## **Article 5 Insurance and Indemnity**

### **5.1 Insurance.**

**5.1.1 Required Coverages.** Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

- (a) Workers' Compensation, in amounts required by California law, with Employers' Liability Limits not less than \$2,000,000 each accident, injury, or illness; and including coverage, as applicable, for U.S. Long Shore and Harbor Workers' Act benefits and Jones Act benefits, and Federal Employers Liability Act. The Worker's Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Thales, its employees, agents and subcontractors.
- (b) Commercial General Liability Insurance with aggregate coverage limits not less than Twenty Million Dollars (\$20,000,000) each occurrence combined

single limit for Bodily Injury and Property Damage, including coverage for Contractual Liability, Explosion, Collapse, and Underground (XCU), Personal Injury, Broad form Property Damage, Products, and Completed Operations. Thales may meet this requirement with one or more primary, umbrella, and/or excess general liability insurance policies that generally cover its corporate projects and operations, provided that should a claim or claims be paid by said policy or policies that total in the aggregate more than Two Million Dollars (\$2,000,000 US), Thales shall within ten Days of receipt of such claim(s) provide notice of same to the SFMTA and obtain additional insurance so that Thales' Services under this Agreement is at all times fully covered in the amount of Twenty Million Dollars (\$20,000,000 US), as provided herein.

- (c) Commercial Automobile Liability Insurance with limits not less than \$2,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable; and
- (d) Risk of Loss Coverage for Proprietary Equipment and Software insuring against loss of Proprietary Equipment and Software prior to City's acceptance, with limits not less than the replacement cost of the Proprietary Equipment and Software (including costs to install, program, configure and test).
- (e) Professional liability insurance, applicable to Contractor's profession, with limits not less than \$1,000,000 each claim with respect to negligent acts, errors or omissions in connection with the Services.
- (f) Technology Errors and Omissions Liability coverage, with limits of \$2,000,000 each occurrence and each loss. The policy shall at a minimum cover professional misconduct or lack of the requisite skill required for the performance of services defined in the contract and shall also provide coverage for the following risks:
  - i. Network security liability arising from the unauthorized access to, use of, or tampering with computers or computer systems, including hacker attacks; and
  - ii. Liability arising from the introduction of any form of malicious software including computer viruses into, or otherwise causing damage to the City's or third person's computer, computer system, network, or similar computer related property and the data, software, and programs thereon.

**5.1.2 Commercial General Liability and Commercial Automobile Liability**

Insurance policies must be endorsed to provide:

(a) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

(b) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

**5.1.3** All policies shall be endorsed to provide 30 days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in Section 13.1 (Notices to the Parties). All notices, certificates and endorsements shall include the SFMTA contract number and title on the cover page.

**5.1.4** Should any of the required insurance (with the exception of professional liability insurance and general liability insurance policies) be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of five years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

**5.1.5** Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit shall be double the occurrence or claims limits specified above.

**5.1.6** Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

**5.1.7** Within five Days of the SFMTA Board's award of this Agreement and Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in

form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

**5.1.8** If Thales will use any subcontractor(s) to provide Services, Thales shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and Thales as additional insureds.

**5.1.9** Approval of the insurance by the City shall not relieve or decrease the extent to which Thales or subcontractor of any tier may be held responsible for payment of any and all damages resulting from its operations. Thales shall be responsible for all losses not covered by insurance, excluding damage caused by earthquake and flood (whether caused by storm or tidal wave) consistent with Section 7105 of the California Public Agreement Code in excess of 5 percent of the Agreement Sum, including the deductibles. All policies of insurance and certificates are subject to review by the City and must otherwise meet the requirements of the City's Risk Manager.

**5.1.10** Thales and its subcontractors shall comply with the provisions of California Labor Code section 3700. Prior to commencing the performance of Services, Thales and all of its subcontractors shall submit to the awarding department a certificate of insurance against liability for workers compensation or proof of self-insurance in accordance with the provisions of the California Labor Code.

**5.1.11** Liability insurance, except for professional liability insurance, shall be on an occurrence basis, and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one insured shall not operate to increase the insurer's limits of liability.

**5.1.12** All insurance policies required by this Agreement shall be endorsed to provide for thirty (30) Days prior written notice of cancellation for any reason, intended non-renewal, or reduction in coverage to the City. All notices shall be made to all the following:

Jonathan Wong  
Contract Administrator  
SFMTA  
1 South Van Ness Avenue, 3rd Floor, 1058C  
San Francisco, CA 94103

David Rojas  
Technical Program Manager  
SFMTA

1 South Van Ness Avenue, 3rd Floor, 1019  
San Francisco, CA 94103

Risk Management Division  
City and County of San Francisco  
25 Van Ness Avenue, Suite 750  
San Francisco, CA 94102

Thales, upon notification of receipt by the City of any such notice, shall file with the City a certificate of the required new or renewed policy at least 10 Days before the effective date of such cancellation, change or expiration, with a complete copy of new or renewed policy.

**5.1.13** If, at any time during the life of this Agreement, Thales fails to maintain any item of the required insurance in full force and effect, all Services of this Agreement may, at City's sole option, be immediately suspended, and all payments due or that become due will be withheld, until notice is received by the City as provided in the immediately preceding Section 5.1.212 that such insurance has been restored to full force and effect and that the premiums therefore have been paid for a period satisfactory to the City.

**5.1.14 Indemnities.**

- (a) For general liability insurance, Thales shall include as additional insureds the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.
- (b) With the exception of professional liability insurance, Thales shall include as additional insured or exclusive loss payee on all policies the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of any of them.

**5.1.15 Insurer Qualifications.** Insurance companies providing coverage for this Agreement shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating not less than "A-, VIII" and must otherwise be satisfactory to the City's Risk Manager.

**5.2 Indemnity, Defense and Liability.**

**5.2.1** To the fullest extent permitted by law and except as specifically provided otherwise in this Agreement, upon the City's providing notice to Thales as provided in Section 5.2.1(b) as to any claim, administrative action, or lawsuit brought by a third party against the City for any loss of or damage caused by or arising from the negligent or intentional acts of Thales or its subcontractors arising from the Services, Thales shall assume the defense of said claim, administrative action, or lawsuit, indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees"). Subject to the requirements and limitations in Section 5.2.1(b), said indemnification shall include any and all claims, suits, actions, losses, costs, damages, injuries (including, without limitation, injury to or death of any employee of Thales or its subcontractors), expense and liability of every kind, nature, and description (including, without limitation, direct, economic, indirect, incidental and consequential (special) damages incurred by said third parties, court costs, attorneys' fees, litigation expenses, fees of expert contractors or witnesses in litigation, and costs of investigation), that arise out of, result from, are connected with, pertain or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Thales, any of its subcontractors or Affiliates, anyone directly or indirectly employed by them, or anyone that they control (collectively, "Liabilities") in the performance of the Services.

- (a) The indemnification contained herein is subject to the City: (i) providing Thales with prompt written notice of the claim; (ii) granting Thales sole control of the defense to the claim except that Thales may not enter into any settlement that would adversely impact the City's rights or impose liability upon the City without its prior written consent; and,
- (b) The terms, conditions, provisions, and failure to cover of any insurance policy covering Thales' performance under this Agreement shall not operate to limit Thales' Liabilities under this Agreement. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities. Thales assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee.

**5.2.2 Limitation of Liability.**

- (a) The City's total liability to Thales for the Services shall be limited to the value of the Services completed in accordance with the requirements of this Agreement, said amount not to exceed the Contract Amount stated in Section 3.3, as that amount may be modified by a properly approved and executed Change Order.
- (b) Except as provided herein, Thales' liability to the City under this Agreement shall be limited to the to the value of direct damages arising from Thales' breach of this Agreement or Thales' negligence in performing the Services and

which shall be limited to 100% of the Contract Amount. Said limitation on liability shall not apply to:

- (i) damages and other liability caused by Thales's willful, intentional acts or omissions;
- (ii) any applicable statute, City Ordinances, and Codes;
- (iii) damages that fall within the insurance coverages required under the Agreement;
- (iv) Thales's warranty obligations under the Agreement;
- (v) damages and other liability arising under claims by third parties, including indemnity or contribution for claims brought by a third party;
- (vi) liability for violation of regulations and laws;
- (vii) damages and other liability for infringement of any intellectual property right (see Section 5.2.4, below);

**5.2.3 Limitations on Special Damages.** The City and Thales's respective liabilities to each other for special, incidental, consequential, and indirect damages are hereby limited as follows:

- (a) The City, its boards and commissions, and all of their officers, agents, members, employees, and authorized representatives shall have no liability to Thales for any type of special, consequential, indirect or incidental damages, including but not limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim, arising under or related to this Agreement or under any cause of action related to the subject matter of this Agreement, whether in contract, tort (including negligence), strict liability, or otherwise. This limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Services or this Agreement, negligence or strict liability by the City, its boards and commissions, and their representatives, contractors or agents.
- (b) Except as specifically provided in this Agreement, Thales, and its Affiliates, employees, officers, directors and shareholders, shall not be liable to the City for any special, consequential, indirect or incidental damages, including but not

limited to losses of use, data, profit, revenue, income, business, anticipated savings, reputation, and more generally, any losses of an economic or financial nature, whether these may be deemed as consequential or arising directly and naturally from the incident giving rise to the claim arising under or related to this Agreement or under any cause of action related to the subject matter of this Agreement, whether in contract, tort (including negligence), strict liability, or otherwise. Except as provided herein, this limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation or recession of the Services or this Agreement, negligence or strict liability by Thales. Under no circumstances shall this limit of liability (as to special damages) apply to or limit Thales's liability with respect to any of the following:

- (i) damages and other liability caused by Thales's willful, intentional acts or omissions;
- (ii) liability (statutory damages) imposed on Thales by law, including any applicable statute, City Ordinances, and Codes;
- (iii) damages and other liability arising under claims by third parties for loss or damage to property or personal injuries, including death; caused by Thales' gross negligence or willful misconduct;
- (iv) liability for violation of environmental regulations and laws;
- (v) damages and other liability for infringement of any intellectual property right (as provided in Section 5.2.4, below).

#### **5.2.4 Indemnity for Infringement of Intellectual Property Rights.**

- (a) Thales shall indemnify, defend, and hold City harmless from all loss and liability, including attorneys' fees, court costs and all other litigation expenses for any infringement of the patent rights, copyright, trade secret or any other proprietary right or trademark, and all other intellectual property claims of any person or persons in consequence of the use by City of the Proprietary Equipment or Software to be supplied in the performance of this Agreement. Thales shall at its sole



expense and election, provided any such election does not result in any cost to the City arising from the claim, either: (1) indemnify the City ; or (2) obtain the right to use the infringing item; or (3) modify the infringing item so that it becomes non-infringing; or (4) replace the infringing item with a non-infringing item, subject to the requirements of Section 5.2.4(d), below.

- (b) Thales shall have no obligations hereunder with respect to any intellectual property infringements caused by: (1) Thales' compliance with the City's designs; (2) City's use or combination of the Software or Proprietary Equipment with products or data of the type for which the Proprietary Equipment and Software was neither designed nor intended; or (3) the modification of the Software or Proprietary Equipment without Thales' prior written consent.
- (c) The provisions of this 5.2.4 shall be the City's sole remedy for infringement claims and is conditional upon City: (1) giving prompt notice in writing to Thales of any claim or proceeding being made or threatened; (2) allowing Thales to defend and settle under its responsibility any proceedings or claims through counsel chosen by Thales at Thales' own expense and (3) affording all reasonable assistance in connection therewith.
- (d) Thales shall be entitled to modify or replace any infringing item so that it becomes non-infringing, or in the event that such modification or replacement is not possible using reasonable technical efforts, to replace the item concerned with a non-infringing item that meets the performance requirements relevant to the replaced item.

**5.3 Responsibility for Equipment.** City shall not be responsible for any damage to persons or property as a result of the use, misuse or failure of any equipment or tools provided by and used by Thales, or by any of its employees, for the purposes of performing any Services hereunder, irrespective of whether Thales or the City provided, rented or loaned said equipment or tools to Thales.

**5.4 Release of Hazardous Materials.** Thales acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with Thales' release or spill of any legally designated hazardous material or waste or contaminated material as a result of the Services performed under this Agreement are

expressly within the scope of the indemnity set out in this Article, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs are expressly within the scope of this indemnity.

## **Article 6      Payment of Taxes**

**6.1**      Except for any applicable California sales and use taxes charged by Contractor to City, Contractor shall pay all taxes, including possessory interest taxes levied upon or as a result of this Agreement, or the Services delivered pursuant hereto. Contractor shall remit to the State of California any sales or use taxes paid by City to Contractor under this Agreement. Contractor agrees to promptly provide information requested by the City to verify Contractor's compliance with any State requirements for reporting sales and use tax paid by City under this Agreement.

**6.2**      Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

**6.2.1**    Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest.

**6.2.2**    Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

**6.2.3**    Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

**6.2.4**    Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

## **Article 7 Termination and Default**

### **7.1 Termination for Convenience.**

**7.1.1** City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor written notice of termination. The notice shall specify the date on which termination shall become effective.

**7.1.2** Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to affect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions shall include, without limitation:

**(a)** Halting the performance of all Services under this Agreement on the date(s) and in the manner specified by the SFMTA.

**(b)** Terminating all existing orders and subcontracts, and not placing any further orders or subcontracts for materials, Services, equipment or other items.

**(c)** At the SFMTA's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, the SFMTA shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

**(d)** Subject to the SFMTA's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.

**(e)** Completing performance of any Services that the SFMTA designates to be completed prior to the date of termination specified by the SFMTA.

**(f)** Taking such action as may be necessary, or as the SFMTA may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which the SFMTA has or may acquire an interest.

**7.1.3** Within 30 days after the specified termination date, Contractor shall submit to the SFMTA an invoice, which shall set forth each of the following as a separate line item:

**(a)** The reasonable cost to Contractor, without profit, for all Services prior to the specified termination date, for which Services the SFMTA has not already tendered payment. Reasonable costs may include a reasonable allowance for actual overhead, not to

exceed a total of 10% of Contractor's direct costs for Services. Any overhead allowance shall be separately itemized. Contractor may also recover the reasonable cost of preparing the invoice.

(b) A reasonable allowance for profit on the cost of the Services described in the immediately preceding subsection (a), provided that Contractor can establish, to the satisfaction of the SFMTA, that Contractor would have made a profit had all Services under this Agreement been completed, and provided further, that the profit allowed shall in no event exceed 5% of such cost.

(c) The reasonable cost to Contractor of handling material or equipment returned to the vendor, delivered to the SFMTA or otherwise disposed of as directed by the SFMTA.

(d) A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to the SFMTA, and any other appropriate credits to the SFMTA against the cost of the Services or other work.

**7.1.4** In no event shall the City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by the SFMTA, except for those costs specifically enumerated and described in Section 7.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Services under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under Section 7.1.3.

**7.1.5** The City's payment obligation under this Section shall survive termination of this Agreement.

## **7.2 Termination for Default; Remedies.**

**7.2.1** Each of the following shall constitute an immediate event of default (Event of Default) under this Agreement:

(a) Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

3.7	Submitting False Claims
4.13	Assignment
Article 5	Insurance and Indemnity
Article 6	Payment of Taxes
11.8	Alcohol and Drug-Free Workplace
13.10	Compliance with Laws

15.1 Nondisclosure of Private, Proprietary or Confidential Information

(b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated by reference herein, and such default continues for a period of ten days after written notice thereof from the SFMTA to Contractor.

(c) Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor's property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor's property, (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

**7.2.2** On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Contractor any Event of Default; Contractor shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law. City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; and (ii) any liquidated damages levied upon Contractor pursuant to the terms of this Agreement; and (iii), any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with the City.

**7.2.3** All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be

deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

**7.2.4** Any notice of default must be sent to the address set forth in Article 11, and in the manner prescribed in Article 11.

**7.3 Non-Waiver of Rights.** The omission by either party at any time to enforce any default or right Not Used to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

**7.4 Rights and Duties upon Termination or Expiration.**

**7.4.1** This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

- 3.4.1 Payment Limited to Satisfactory Services
- 3.5.1 Grant-Funded Contracts - Disallowance
- 3.6 Audit and Inspection of Records
- 3.7 Submitting False Claims
- Article 5 Insurance and Indemnity
- Article 6 Payment of Taxes
- 7.1.6 Payment Obligation
- 13.6 Dispute Resolution Procedure
- 13.7 Agreement Made in California; Venue
- 13.8 Construction
- 13.9 Entire Agreement
- 13.10 Compliance with Laws
- 13.11 Severability
- 15.1 Nondisclosure of Private, Proprietary or Confidential Information

**7.4.2** Subject to the survival of the Sections identified in Section 7.4.1 above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed and paid for by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

## **Article 8      Software License and Documentation**

**8.1      Documentation.** Thales shall supply Documentation to the City for Equipment and Software that Thales provides or procures for the SFMTA under this Agreement. The City shall have the right to use the Documentation for the operation and maintenance of the ATCS. The City may make copies of the Documentation to the extent necessary to maintain one archive version, as required to train its employees in the operation and maintenance of the ATCS, and for other internal SFMTA purposes, provided always that all copyright, confidentiality or proprietary legends or other markings shall be transposed onto such permitted copies. The Documentation and all permitted copies thereof shall at all times be treated as proprietary and a trade secret of Thales or its suppliers and be subject to the provisions of this Agreement for Confidential Information.

### **8.2      Software License.**

**8.2.1**      The City is hereby granted a non-exclusive, non-transferable, perpetual license to use the Software provided to the SFMTA under this Agreement from the date of payment for same, restricted to the use of the Software for the SFMTA's operation and maintenance of the ATCS. The City has no right to grant sublicenses. Thales warrants that it has the title to and/or authority to grant said license(s) and sublicenses(s) of the Software to the City. Notwithstanding anything to the contrary contained in this Agreement, the City receives no title or ownership rights to Software purchased under this Agreement, and all such rights shall remain with Thales or its suppliers.

**8.2.2**      The City agrees that the Software provided to it by Thales under this Agreement or any renewals, extensions or expansions hereof shall, as between the Parties, be treated as proprietary and a trade secret of Thales or its suppliers and be subject to the provisions of Article 15. The City shall not:

- (a) Make any copies of Software provided under this Agreement or parts thereof, except for archival back up purposes and when making copies as permitted herein, shall transfer to the copy/copies any copyright or proprietary legends or other marking on said Software; or
- (b) Use said Software for any other purpose than permitted in this Section; or
- (c) Translate, reverse engineer, adapt, arrange, or error-correct or make any other alterations to said Software.

**8.2.3**      The obligations of the City under this Section shall survive the termination or expiration of this Agreement.

**8.2.4** The license to use Software provided under this Agreement may contain freely available Software obtained by Thales from a third-party source. Thales has not paid any license fee for the inclusion of any such freely available Software, and Thales does not charge a license fee to City for its use. City acknowledges and agrees that the third-party source provides no warranties and shall have no liability whatsoever in respect of City's possession and/or use of the freely available Software.

## **Article 9 Rights In Deliverables**

Any plans, layouts, designs, diagrams, blue prints, specifications, blueprints, report and other deliverables provided by Thales that are specific to the installation of the ATCS that do not reveal proprietary Thales data shall be the property of the City (the "Deliverables"). Thales may retain and use copies of said Deliverables for reference and as documentation of its experience and capabilities. If any such Deliverables created by Thales or its subcontractor(s) under this Agreement are ever determined not to be works for hire under U.S. law, Thales hereby assigns all Thales's copyrights to such Deliverables to the City, agrees to provide any material and execute any documents necessary to effectuate such assignment, and agrees to include a clause in every subcontract imposing the same duties upon subcontractor(s). With City's prior written approval, Thales and its subcontractor(s) may retain and use copies of such works for reference and as documentation of their respective experience and capabilities.

## **Article 10 SFMTA Responsibilities**

To facilitate Thales's provision of professional services, the SFMTA shall do the following:

**10.1 Appoint a Project Manager and Contact Persons.** SFMTA shall appoint a Project Manager to oversee and coordinate Contractor's Work under this Contract and the SFMTA's use of the ATCS and an alternate, both trained on the use of the ATCS, who shall act as SFMTA's primary contact person for all communications with Thales. All information and materials provided to SFMTA by Thales pursuant to this Agreement shall be sent to the attention of the Project Manager as directed by the SFMTA. SFMTA may, by notice in writing to Thales, substitute the Project Manager with other employees as its designated representatives, for specified issues, project or Problems. The Project Manager and any delegates must speak English with sufficient competence to assist Thales in performing the work under this Agreement.

**10.2 Access to ATCS.** SFMTA shall provide Thales with access to and use of all information and system facilities Thales determines are necessary for it to provide timely services pursuant to this Agreement.

**10.3 Service Activities.** Any maintenance activity performed by the SFMTA shall be in accordance, with the relevant procedures prescribed by Thales in the Documentation.



**10.4** The SFMTA shall keep a logbook or create daily inspector's report in which all events relevant to the Services shall be recorded. This logbook shall be available to both Parties at all times.

**10.5 Access to Tools, Documentation, Parts.** Thales shall have the right to make use of all tools, documentation and, if applicable, spare parts which may be relevant to the services and which SFMTA shall be available to the Site.

**10.6 Copies of Software and Documentation.** SFMTA shall make available to Thales as needed a copy of all the Software installed and related Documentation and a copy of certificates of the Software licenses provided by third parties.

**10.7 Maintenance Records.** The SFMTA shall maintain in written or electronic form records of maintenance performed by the SFMTA and the parts used. The SFMTA shall also manage in an adequate manner its stock of consumable items and/or spare parts to ensure the continued availability of such consumable items and/or spare parts.

## **Article 11 Additional Requirements Incorporated by Reference**

**11.1 Laws Incorporated by Reference.** The full text of the laws listed in this Article 11, including enforcement and penalty provisions, are incorporated by reference into this Agreement. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement (Mandatory City Requirements) are available at [http://www.amlegal.com/codes/client/san-francisco\\_ca](http://www.amlegal.com/codes/client/san-francisco_ca).

**11.2 Conflict of Interest.** By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Agreement.

**11.3 Prohibition on Use of Public Funds for Political Activity.** In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

### **11.4 Nondiscrimination Requirements.**

**Nondiscrimination in Contracts.** Contractor shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 12B.2(a), 12B.2(c)-(k), and 12C.3 of the San

Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

**11.4.1 Nondiscrimination in the Provision of Employee Benefits.** San Francisco Administrative Code 12B.2. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

**11.5 Minimum Compensation Ordinance.** Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Administrative Code Chapter 12P. Contractor is subject to the enforcement and penalty provisions in Chapter 12P. By signing and executing this Agreement, Contractor certifies that it is in compliance with Chapter 12P.

**11.6 Health Care Accountability Ordinance.** Contractor shall comply with San Francisco Administrative Code Chapter 12Q. Contractor shall choose and perform one of the Health Care Accountability options set forth in San Francisco Administrative Code Chapter 12Q.3. Contractor is subject to the enforcement and penalty provisions in Chapter 12Q.

**11.7 Not Used.**

**11.8 Alcohol and Drug-Free Workplace.** City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor whom City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

Contractor agrees in the performance of this Agreement to maintain a drug-free workplace by notifying employees that unlawful drug use is prohibited and specifying what actions will be taken against employees for violations; establishing an on-going drug-free awareness program that includes employee notification and, as appropriate, rehabilitation. Contractor can comply with this requirement by implementing a drug-free workplace program that complies with the Federal Drug-Free Workplace Act of 1988 (41 U.S.C. § 701) [or California Drug-Free Workplace Act of 1990 Cal. Gov. Code, § 8350 et seq., if state funds involved].).

**11.9 Limitations on Contributions.** By executing this Agreement, Contractor acknowledges its obligations under section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with, or is seeking a contract with, any department of the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, for a grant, loan or loan guarantee, or for a development agreement, from making any campaign contribution to (i) a City elected official if the contract must be approved by that official, a board on which that official serves, or the board of a state agency on which an appointee of that official serves, (ii) a candidate for that City elective office, or (iii) a committee controlled by such elected official or a candidate for that office, at any time from the submission of a proposal for the contract until the later of either the termination of negotiations for such contract or twelve months after the date the City approves the contract. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 10% in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor certifies that it has informed each such person of the limitation on contributions imposed by Section 1.126 by the time it submitted a proposal for the contract, and has provided the names of the persons required to be informed to the City department with whom it is contracting.

## **Article 12 Security Sensitive Information and Critical Infrastructure Information.**

**12.1 Design Documents, Drawings, ATCS testing and performance specifications (SSI Documents)** that the SFMTA provides to Thales and that Thales creates under this Contract constitute Security Sensitive Information and Critical Infrastructure Information under federal and State law. (See 49 CFR 15 and 1520.) Thales acknowledges that access to the SSI Documents by unauthorized persons or organizations would pose significant risk of grave harm to the SFMTA and public safety.

**12.2 Use of SSI Documents.** Thales shall use the SSI Documents only for the purposes of performing the Services under the This Agreement, and for no other purpose. Thales shall guard the SSI Documents safe and secure at all times from disclosure to unauthorized personnel and shall only allow access to the SSI Documents to persons with a "need to know" for performing the Services. When the SSI Documents are not being used to perform the Services, Thales shall keep the SSI Documents in a locked, secure area so that the SSI Documents are not physically or visually accessible to persons who are not directly involved in the preparation of Thales' Proposal for the This Agreement. When unattended, the SSI Documents must be secured in a locked container, office, or other restricted access area with access to the keys or combination limited to those with a need to know. Thales shall not copy, publish, circulate or use any of the SSI Documents for any purpose other than performing the Services under this This Agreement, without first obtaining the SFMTA's written approval to do so.

**12.3 Disposal of the SSI Documents.** After Final Acceptance of the Services or earlier termination of this Agreement, Thales may keep one set of the SSI Documents for its internal use only, but shall return all other sets of SSI Documents or destroy them, as follows:

SSI Documents shall be returned to:

San Francisco Municipal Transportation Agency, Information Technology  
Attention: David Rojas, 1 South Van Ness, 3rd floor San Francisco, CA 94103

**12.4** If not returned to the SFMTA, the SSI Documents must be destroyed in a manner that ensures recovery of the information contained therein would be difficult, if not impossible. Any means approved for the destruction of national security classified material such as machine shredding, may be used to destroy the SSI Documents. If no such means is available, the SSI Documents may be destroyed by cutting or tearing them into small pieces and assimilating it with other waste material. Compact discs or other physical electronic media containing the SSI Documents shall be broken to pieces. Electronic files containing the SSI Documents or any portion of them shall be deleted. Thales shall certify to the SFMTA in writing that the SSI Documents have been destroyed as required herein.

**12.5 Liability for Failure to Secure or Misuse of the SSI Documents.** Subject to the provisions of this Agreement, Thales shall be fully liable for any and all harm and damages that may arise from unauthorized persons or entities gaining access to the SSI Documents due to or arising from Thales' failure to adhere strictly to the requirements of this Article 12. In addition to civil liability, Thales is cautioned that violation of applicable laws and regulations concerning protection and use of Security Sensitive Information may subject Thales to federal penalties.

**12.6 Subcontractors.** Thales shall include the provisions of this Article 12 in any agreement with a Thales Affiliate or subcontractor that will require access to the SSI Documents, and Thales shall be responsible for its Subcontractors' and Suppliers' adherence to the requirements of this Article.

## **Article 13 General Provisions**

**13.1 Notices to the Parties.** Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City:  
David Rojas, David.Rojas@sfmta.com  
Train Control, ATCS  
Technical Program Manager  
SFMTA  
1 South Van Ness Avenue, 3rd floor, 1019  
San Francisco, CA 94102

and

Jonathan Wong, Jonathan.Wong@sfmta.com  
Contracts Administrator  
SFMTA  
1 South Van Ness Avenue, 3rd floor, 1058C  
San Francisco, CA 94102

To Thales:

Ray Gaffoor, Ray.Gaffoor@us.thalesgroup.com  
Thales Transport & Security, Inc.  
5500 Corporate Drive, Suite 500  
Pittsburgh, PA 15237

Any notice of default must be sent by overnight delivery service or courier, with a signature obtained at delivery. Either Party may change the address to which notice is to be sent by giving written notice thereof to the other Party. If email notification is used, the sender must specify a receipt notice.

**13.2 Compliance with Americans with Disabilities Act.** Contractor shall provide the Services in a manner that complies with the Americans with Disabilities Act (ADA), including but not limited to Title II's program access requirements, and all other applicable federal, state and local disability rights legislation.

**13.3 Sunshine Ordinance.** Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state or local law.

**13.4 Modification of this Agreement.** This Agreement may not be modified, nor may compliance with any of its terms be waived, except as noted in Section 13.1 (Notices to Parties) regarding change in personnel or place, and except by written instrument executed and approved as required under City law and under the policy of the SFMTA Board of Directors. Contractor shall cooperate with the SFMTA to submit to the CCO any amendment, modification, supplement or change order that would result in an increase of the amount of this Agreement greater than 20 percent of the original contract amount. (SFMTA SBE/DBE Form No. 8 Declaration – Amendments of Professional Service Contracts.

**13.4.1** Contract Modifications shall be in writing and signed by authorized persons of both parties. If an agreed Contract Modification affects the schedule and/or price for the Work, the Contract Modification will include necessary changes to Project schedule and/or price.

**13.4.2** Thales shall perform the Additional Work required in the Directive and shall maintain a careful accounting of its direct costs and labor, which the SFMTA shall compensate as allowed by FTA rules and regulations. SFMTA will be notified by Thales of schedule impact as a result of this additional work. Work will not commence prior to mutual agreement of the schedule impact. The SFMTA and Thales shall negotiate a reasonable fixed fee that shall include reasonable profit and overhead for that Work performed under the Directive.

**13.4.3** The requirements of this Purchase Order may be supplemented, and minor variations and deviations in the Work may be authorized only in the following ways: (1) a Clarification, written interpretation or other bulletin issued by the SFMTA; or (2) the SFMTA's review and acceptance of a shop drawing or sample or other Submittal. A Clarification shall not constitute a modification of the Contract or Purchase Order but is only a statement of the SFMTA's interpretation of the Contract Documents upon which Thales may rely. The SFMTA's response to an RFI or Submittal, so long as it meets the requirements set for in this contract shall not modify the Contract Documents, but only clarifies the meaning of a Contract Document, upon which Thales may rely as to the specific matter addressed in the response.

### **13.5 Dispute Resolution Procedure.**

**13.5.1 Negotiation; Alternative Dispute Resolution.** The Parties will attempt in good faith to resolve any dispute or controversy arising out of or relating to the performance of services under this Agreement. If the Parties are unable to resolve the dispute, then, pursuant to San Francisco Administrative Code Section 21.35, Contractor may submit to the Contract Administrator a written request for administrative review and documentation of the Contractor's claim(s). Upon such request, the Contract Administrator shall promptly issue an administrative decision in writing, stating the reasons for the action taken and informing the Contractor of its right to judicial review. If agreed by both Parties in writing, disputes may be resolved by a mutually agreed-upon alternative dispute resolution process. If the parties do not mutually agree to an alternative dispute resolution process or such efforts do not resolve the dispute, then either Party may pursue any remedy available under California law. The status of any dispute or controversy notwithstanding, Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the Agreement and the written directions of the City. Neither Party will be entitled to legal fees or costs for matters resolved under this section.

**13.5.2 Government Code Claim Requirement.** No suit for money or damages may be brought against the City until a written claim therefore has been presented to and

rejected by the City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the California Government Code Claim requirements set forth in San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq.

**1.1.1 Not Used. (Health and Human Service Contract Dispute Resolution Procedure).**

**13.6 Agreement Made in California; Venue.** The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

**13.7 Construction.** All paragraph captions are for reference only and shall not be considered in construing this Agreement.

**13.8 Entire Agreement.** This contract sets forth the entire Agreement between the parties and supersedes all other oral or written provisions. This Agreement may be modified only as provided in Section 13.5 (Modification of this Agreement).

**13.9 Compliance with Laws.** Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

**13.10 Severability.** Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

**13.11 Cooperative Drafting.** This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.”

**13.12 Force Majeure.**

**13.12.1** Neither Party shall by reason of Force Majeure, be entitled to terminate this Agreement nor shall either Party have any claim for damages against the other for any nonperformance or delay under the Agreement as a result of such Force Majeure. If the performance in whole or part of any obligation under this Agreement is delayed because of any such event of Force Majeure for a period exceeding three (3) months, the Parties shall discuss and review in good faith the desirability and conditions of terminating this Agreement.

**13.12.2** The prevented Party shall, as soon as it becomes aware of an event of Force Majeure, immediately inform the other Party of the nature and the beginning and the end of the Force Majeure circumstances preventing the performance of the Agreement.

**13.13 English Required.** All data, documents, descriptions, diagrams, instructions and correspondence shall be in the English language.

**13.14 Services Provided by Attorneys.** Any services to be provided by a law firm or attorney must be reviewed and approved in writing in advance by the City Attorney. No invoices for services provided by law firms or attorneys, including, without limitation, as subcontractors of Thales, will be paid unless the provider received advance written approval from the City Attorney.

**13.15 Federal Contract Requirements.** Procurement of goods and services under this Agreement is subject to the federal contracting requirements set out in Appendix I, which are incorporated by reference as if fully set out here. Should any provision in this Agreement or a subsequent Purchase Order issued under this Agreement conflict with applicable federal contracting requirements, the federal contracting requirements shall govern.

**13.16 Signature by Counterparts.** This Agreement may be executed in any number of counterparts all of which taken together shall constitute one and the same instrument and either of the Parties may execute this Agreement by signing any such counterpart. Delivery may be completed by the Party concerned transmitting to the other Party an electronic (PDF) or facsimile copy of the counterpart signed by such Party. Any Party delivering any executed counterpart of this Agreement as provided herein shall confirm execution by delivering by first class mail or courier an original of such executed counterpart to the other Party.

## **Article 14 Large Vehicle Driver Safety Training Requirements.**

**14.1** Contractor agrees that before any of its employees and subcontractors drive large vehicles within the City and County of San Francisco, those employees and subcontractors shall successfully complete either (a) the SFMTA's Large Vehicle Urban Driving Safety training program or (b) a training program that meets the SFMTA's approved standards for large vehicle urban driving safety. The SFMTA's approved standards for large vehicle urban driving safety is available for download at [www.SFMTA.com/largevehicletainingstandards](http://www.SFMTA.com/largevehicletainingstandards). This requirement



does not apply to drivers providing delivery services who are not employees or subcontractors of the Contractor. For purposes of this section, "large vehicle" means any single vehicle or combination of vehicle and trailer with an unladen weight of 10,000 pounds or more, or a van designed to carry 10 or more people.

**14.2** By entering into this Agreement, Contractor agrees that in the event the Contractor fails to comply with the Large Vehicle Driver Safety Training Requirements, the City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of up to One Thousand Dollars (\$1,000) per employee or subcontractor who is permitted to drive a large vehicle in violation of these requirements is not a penalty, but is a reasonable estimate of the loss that City will incur based on the Contractor's failure to comply with this requirement, established in light of the circumstances existing at the time this Contract was awarded. City may deduct a sum representing the liquidated damages from any money due to Contractor. Such deductions shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply.

## **Article 15 Data and Security**

### **15.1 Nondisclosure of Private, Proprietary or Confidential Information.**

**15.1.1** If this Agreement requires City to disclose "Private Information" to Contractor within the meaning of San Francisco Administrative Code Chapter 12M, Contractor and Subcontractor shall use such information only in accordance with the restrictions stated in Chapter 12M and in this Agreement and only as necessary in performing the Services. Contractor is subject to the enforcement and penalty provisions in Chapter 12M.

**15.1.2** In the performance of Services, each party may have access to the other party's proprietary or confidential information, the disclosure of which to third parties may damage the non-disclosing party. If a party discloses proprietary or confidential information to the other party, the receiving party shall hold such information in confidence and used only in performing the Services and the purposes of this Agreement. Each party shall exercise the same standard of care to protect such information as a reasonably prudent commercial or government entity would use to protect its own proprietary or confidential information.

## **Article 16 MacBride Principles MacBride Principles -Northern Ireland.**

The provisions of San Francisco Administrative Code §12F are incorporated herein by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern

Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

### **Article 17    Included Appendices**

The documents listed below are Included Appendices that are incorporated by reference into this Agreement as if fully set out herein:

- A:    Scope of Services
- B:    Milestone Payment Schedule
- C:    (Not Used)
- D:    (Not Used)
- E:    Requirements Traceability Verification Matrix Template
- F:    Look Ahead Document Template
- G:    SFMTA Work Plan (Typical)
- H:    Risk Register Template
- I:    FTA Contract Requirements

*Signatures on following page.*

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

<p><b>CITY</b></p> <p><b>San Francisco Municipal Transportation Agency</b></p> <hr/> <p>Edward D. Reiskin Director of Transportation</p> <p>Authorized By:</p> <p>Municipal Transportation Agency Board of Directors</p> <p>Resolution No: _____</p> <p>Adopted: _____</p> <p>Attest: _____ Roberta Boomer, Secretary</p> <p>Approved as to Form:</p> <p>Dennis J. Herrera City Attorney</p> <p>By: _____ Robert K. Stone Deputy City Attorney</p>	<p><b>CONTRACTOR</b></p> <p><b>Thales Transport &amp; Security</b></p> <hr/> <p>Ray Gaffoor, Thales Transport &amp; Security, Inc. 5500 Corporate Drive, Suite 500 Pittsburgh, PA 15237</p> <p><u>Acknowledgement of Large Vehicle Driver Safety Training Requirements:</u></p> <p>By signing this Agreement, Contractor acknowledges that it has read and understands Section 12.1: Large Vehicle Driver Safety Training Requirements.</p> <p>City Supplier number: <b>[Supplier number]</b></p>
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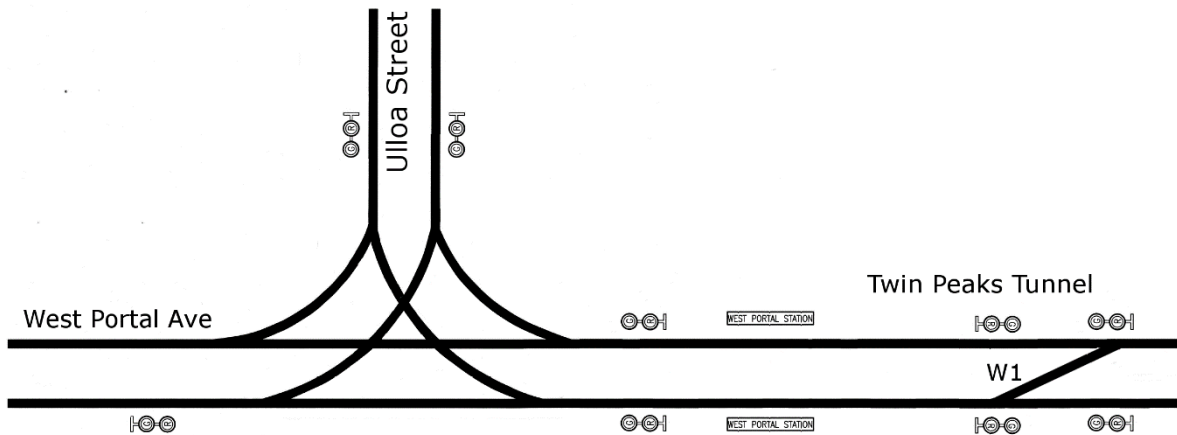
## Appendix A – Scope of Services.

### West Portal Optimization and Crossover Activation Project

#### A. BACKGROUND AND PURPOSE

The purpose of this Agreement is to update ATCS software and elements of the wayside infrastructure in the Twin Peaks Tunnel and activate the newly installed W1 crossover just east of West Portal station. Thales will provide these updates in two software releases that will be separately factory and site tested. As more specifically described below, the first release will implement low level functionality to allow a train to be routed by CCOs through the interlock to turn back at West Portal station inbound platform. The second release will add an additional level of automatic train routing functionality.

SFMTA will separately procure construction work to install new inductive loop, install axle counter heads on the track, and design and build conduit and cabling to relocated ATCS equipment in the tunnel.



#### B. DEFINITIONS

The meaning of the following terms, for purposes of this Contract shall have the meaning set out here.

1. Additional Work – Work that is not within the scope of Work described in the Contract Documents, is not incidental to the Work described in or required under the Contract Documents.
2. Baseline Schedule -A detailed CPM schedule describing Thales' plan and timing for executing the Work.
3. Central fallback – Mode of the ATCS when the VCC is not operational which provides subway-wide supervisory control by the operations

control center of trains in manual non-communicating mode via the LSMCs.

4. Commissioning Test – Test that occurs separately after non-revenue site testing is complete to verify that there have been no changes to the system before placing software/hardware updates permanently into revenue service. Usually follows a period allocated to review test results from site acceptance testing.
5. Codes - The latest (most recently enacted) versions of state, federal, and local regulations, ordinances, statutes, and other laws and requirements of regulatory agencies with jurisdiction of the Project that govern the design, means, and methods of construction, labor employed on the Work, the built structure, and safety and other mandates of law. Whatever reference is made to code, that reference shall be construed to mean the applicable codes, regulations, ordinances, statutes, laws and other legal requirements applicable to the Work, whether or not specified or otherwise referenced in the Contract Documents.
6. Contract, Contract Documents - The General Provisions, Technical Management Provisions, and Appendices to and documents incorporated by reference therein.
7. Critical Path Method – a project scheduling methodology that identifies the activities necessary to complete a Task, the time necessary to finish each activity, the relationships between the activities, and the amount of float associated with each activity to identify the critical path which is the sequence of project network activities which add up to the longest overall duration.
8. Current Schedule - A Current Schedule is Thales' periodic report of actual progress, estimated progress to completion, and problems that cause the Work to be delayed
9. Calendar Days - Consecutive calendar days, including weekends and holidays, unless otherwise specified herein.
10. Design - Technical specifications and drawings.
11. Engineer - A technical manager or site representative authorized to represent the SFMTA concerning technical matters of the Project.
12. Factory Acceptance Test (FAT) - testing performed in a laboratory setting to verify system compliance with approved design documents and system requirements.
13. Final Acceptance – Written confirmation from the SFMTA's Project Manager that Work is complete and accepting the Work.
14. Furnish - Purchase and deliver to the site, installation is not included. The term "Furnish" also means to supply and deliver.
15. Local SMC (LSMC) - Computer workstations installed in signal rooms which interface with the station controllers and allow local control of switches by maintenance personnel and supervisory control by the operations control center.
16. Logical network – A diagram based on the work breakdown structure showing the sequence of activities in a project across time.

It indicates which activity logically precedes or follows another.

17. OpSim – Desktop application that simulates the operation of the ATCS subsystems and subway rail operations for testing and SFMTA training purposes.
18. Project - The Work described herein, and elements of that Work including incidental Work necessary for the completion of the Work, in whole or part, and the end result of the Work.
19. Provide - Furnish and install, or supply and install, complete and in place, at the site.
20. Request for Information - A document prepared by Thales requesting information from the SFMTA regarding the Work, Project, or Contract Documents.
21. Revenue Hours - Hours during which trains carry fare paying passengers operate as defined by the Current Schedule and which may be modified by the Lenox Operations Control Center (OCC), also known as "Revenue Service."
22. Safety and Functional Requirements Memorandum - Memorandum from Thales that verifies that the implemented work satisfies functional and safety requirements
23. SFMTA Internal Demo – 7-hour period after Thales SAT testing is complete when Thales engineers will be on site while transit staff and managers use system during non-revenue hours. Scope of demo to be negotiated as part of test plan and scheduled as part of look-ahead.
24. Site Acceptance Test (SAT) - testing performed on-site on equipment used in revenue service to verify system compliance with approved design documents and system requirements.
25. Station Controller Subsystem (SCS) - Equipment at the wayside which provides control of signals and switches and sensing of axle counter block occupancy over a specific area of the ATCS system.
26. Subway Location Server (SLS) – SFMTA computer where the Thales Application is installed. The Thales Application interfaces the ATCS SMC with outside data clients.
27. System Management Center (SMC) - Subsystem that provides for automatic train supervision functions within the ATCS such as such as traffic regulation and data reporting.
28. Submittal - A document, design, and schedule, shop drawings, sample, and test report, certificates of compliance, manufacturer's instructions, or other Thales Work product described herein that Thales shall submit to the SFMTA for review and approval in accordance with the agreed upon Submittal Schedule prior to continuation of or acceptance of Work. A Resubmittal is a Submittal previously rejected by the SFMTA that Thales has resubmitted for SFMTA review and approval.
29. Technical Specifications - Directions, provisions, and requirements including plans or drawings pertaining to the performance of the Work herein required and to the furnishing of material.
30. Test Day - Calendar Day on which SFMTA is required to mobilize staff

- and resources to support Thales' testing and commissioning.
31. Thales SEM - System Engineering Manager
  32. VCC, Vehicle Control Center - Computer system at central control which provides vital automatic control of train movement in ATCS.
  33. Wayside ATCS - Hardware and software of SMC, VCC, SCS ATCS subsystems, their interfaces to VOBC and outside interfaces to external ATCS data clients. Hardware shall include equipment required to test and maintain wayside ATCS.
  34. Work Breakdown Structure (WBS) - hierarchical decomposition of the work to be executed by the project team which organizes the total scope of the project.
  35. Look-Ahead Schedule - A detailed spreadsheet showing Work to be accomplished in the coming months for testing activities. See contract provisions for more details.
  36. Work - The performance by Thales of its responsibilities and obligations as specified or otherwise set forth in the Contract Documents, and the results of Thales's efforts. Work shall include, but not be limited to, providing labor, services, materials, and documentation required by the Contract Documents as pertaining to the signaling system of the ATCS.
  37. Work Day –Calendar Day (24 hour period commencing at 12:00 AM and terminating at 11:59 PM), except Saturday, Sundays, and holidays.
  38. Workshop - Formal presentation between SFMTA and Thales Project teams to discuss Project scope and Project related activities.
  39. Vehicle On-Board Computer – Vital hardware and software on-board light rail vehicle which controls vehicle movements and communicates with wayside ATCS systems.

### C. DESCRIPTION OF SCOPE

Thales shall provide and perform the following services and tasks:

1. Thales shall provide designs, plans, software, inspection, testing, and commissioning to implement VCC, SMC, SCS, and SLS software changes to provide for ATCS control of W1 interlocking. Functional basis of design shall be as stated in “West Portal Optimization and Crossover Activation – Howard/Rojas 4/5/19”.
2. Thales shall update the software in two separate software releases
3. Thales shall provide integration of and commissioning of switches for W1 into the ATCS system.
4. Thales shall provide a design for the new inductive loop and axle counter head layout required for activation of W1.
5. Thales shall participate in meetings with the SFMTA change control board, SFMTA safety oversight committee, and CPUC. Reference Section 9.I for number of meetings. These meetings shall occur during design and verification stages. Changes that impact system requirements shall follow the contract change process.

6. Thales shall provide construction scope, drawings, and specifications for a job-order-contractor or SFMTA forces to modify the inductive loop system and install axle counter heads required to enable W1.
7. Thales shall perform post installation check out of construction work performed by SFMTA to enable the activation of W1. Thales shall provide on-site representative to supervise the drilling of the axle counter mounting holes in the area. SFMTA shall perform its own construction inspection activities before Thales PICO.
8. Thales shall prototype functionality at SFMTA using the standalone OpSim simulation of the SelTrac system at each SMC delivery stage and demonstrate functionality to SFMTA before executing factory testing. At each release stage the OpSim software simulation shall be implemented using the SMC and VCC subsystem software and guideway data to be used in factory testing. Prototyping shall include simulation of functionality while execution of scripts which mimic revenue service operations underway.
9. Thales shall update and test the Thales Application on the subway location server for messages shown in the Thales Application Interface Specification (Document: 3CU\_00837\_0012\_PBZZA). Although may not be required, Thales shall verify all messages.
10. Update ATCS documentation determine whether the documentation reflects the current condition of the ATCS at Substantial Completion of the Project and update the documentation to reflect that current condition.
11. Develop and conduct a test program to verify that modified ATCS subsystems meet operational, functional, safety, and performance requirements as developed in the course of Project design and to verify that baseline functionality has not been changed.
12. Provide Workshops for SFMTA staff during various phases of the Project.
13. Provide continuous on-site technical support during site test and site commissioning phases of the Project. There shall be one test engineer and one lead engineer on-site during testing.
14. Thales shall list the requirements in the Project System Requirements Traceability Matrix (SRTM) and track them to test verification throughout the course of the Project. Requirements shall be flowed down to verifiable system and subsystem requirements. The SRTM shall be updated throughout the Project life cycle and shall be submitted to SFMTA during different stages.

#### D. OVERALL PROJECT RESPONSIBILITIES

1. The following Table 3 details specific responsibilities for different scope areas of the Project.

**Table 1 - Project Responsibility**



<b><u>Scope/Deliverable/Activity</u></b>	<b><u>SFMTA</u></b>	<b><u>Thales</u></b>
Software design, testing and, commissioning of W1 and Thales Application	Accountable	Responsible
Scheduling and technical management	Accountable	Responsible
Reprogramming of the surface interlocking controller at West Portal and Ulloa.	Accountable	Responsible
Scope for job-order-contractor to install new inductive loop and axle counter head to rail.	Accountable	Responsible for scope
Furnish equipment required to activate W1 crossover.	Accountable/Responsible	Consulted
Construction work to install equipment in tunnel required to activate W1 crossover.	Accountable/Responsible	Consulted
Coordination with CPUC	Accountable/Responsible	Consulted
Implementation of software updates to NextBus and passenger information signs.	Accountable/Responsible	Consulted
Project Management Plan	Accountable	Responsible
Overall Project Change Control	Accountable/Responsible	Consulted
Risk Management	Accountable	Responsible
Requirements Management	Accountable	Responsible
Submittal Register	Accountable	Responsible
Project Meetings	Accountable	Responsible

## 2. Definition of roles

- Responsible - Those who do the work to complete the Task. Others can be delegated but responsible determines that the Task is completed, and quality checked.
- Accountable – Approves the deliverable or Task performed by Responsible. Must sign off. There must be only one accountable specified for each Task or deliverable.
- Consulted - Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication.

#### E. PROJECT PLANNING, PROJECT MANAGEMENT AND TECHNICAL SUPPORT

Thales shall provide and perform the following services and tasks:

1. Project Management Plan. Provide and implement a Project Management Plan that addresses: Project terms and acronyms; Project scope; resumes and qualifications of Thales's staff assigned to the Project, Project organizational structure; working interfaces among parties; Project team responsibilities and reporting relationships; Project communications; and regular reviews by SFMTA Project and transit operations staff. Update and maintain current the plan when the Project scope, schedule, or activities deviate from the original plan. Thales to provide a dedicated Cisco WebEx account for project use.
2. Work Breakdown Structure – Provide a noun first top down graphical WBS decomposed down to the work package level. The WBS should represent the work identified in this contract. Numbering system shall correspond to activity numbering in the schedule. Create a WBS Dictionary to capture Task characteristic information, including Task description, work package ID, owner, work products, level of effort, resources, inputs, and dependencies. Both SFMTA and Thales project work activities shall be in the WBS unless approved by the Engineer. Outputs (risk mitigations) from Risk Management Process shall be included in the WBS
3. Schedule. Develop a critical path-based Baseline Schedule on the WBS. Review schedule format and Project activities indicated in the Baseline Schedule and with the SFMTA before releasing the first Current Schedule. Update the Current Schedule to include current information regarding progress of the Project every two weeks. As part of the Current Schedule, identify and provide current information regarding critical and near-critical activities, milestones, Work progress, and delays and issues that are affecting or may affect the timely performance of the Work, and develop corrective action plans with each Current Schedule update. Explain delays in accompanying memorandum that discusses relevant facts and causes of delay and identifies the party responsible for delay. Thales shall report delays and delay responsibilities to the SFMTA when Thales issues updates to the Current Schedule. Schedule shall include SFMTA activities.

4. Technical Review Meetings. Lead Project technical review meetings every two weeks with SFMTA Project staff and transit operations staff up to the final design review. Subsequent meeting schedule to be determined by SFMTA Project Manager. Report at each meeting activities from the WBS completed and activities planned to be completed by next meeting. Provide discussion of software logic changes and live demonstration of changes using GUI when relevant to changes. Discuss progress of test procedure development, factory testing, and site testing. Prepare meeting agenda before each meeting and meeting minutes after each meeting for SFMTA's review and approval. Distribute meeting agenda to meeting participants three Work Days before meeting. Distribute draft meeting minutes within three Work Days of each meeting. SFMTA will review and provide comments to meeting agenda no later than one Work Day before the meeting. SFMTA will provide comments to draft meeting minutes within five Work Days of receipt, if comments are not received within timeframe then the minutes are accepted. Thales will amend the draft meeting minutes and distribute final meeting minutes within three Work Days of receipt of completion of SFMTA review.
5. Project Progress Meetings. Lead Project management progress review meetings every two weeks with SFMTA Project and transit operations staff. Report on issues related to schedule, scope, submittal register, project risks, workshop activities, and document status. Review Thales' activity during past two weeks and provide two months look-ahead of Project test activity. Prepare meeting agenda before each meeting and meeting minutes after each meeting for SFMTA's review and approval. Distribute meeting agenda to meeting participants three Work Days before meeting. Distribute draft meeting minutes within three Work Days of each meeting. SFMTA will review and provide comments to meeting agenda no later than one Work Day before the meeting. SFMTA will provide comments to draft meeting minutes within five Work Days of receipt, if comments are not received within timeframe then the minutes are is accepted. Thales will amend the draft meeting minutes and distribute final meeting minutes within three Work Days of receipt of SFMTA's comments.
6. Establish a System Engineering process for the Project. Develop a System Requirements Traceability Matrix (SRTM). Address baseline requirements of the system that are changing. New system requirements and interfaces shall flow from the functional requirements attached in Appendix C and required changes to baseline requirements of the ATCS to implement the work. Address the methodology used by the development teams to translate the functional requirements into a hardware and software design. Update requirements documents as indicated in the project milestones. Acceptance of updated requirements document is a gate to the next project phase. Verification Matrix structure shall be structured as indicated in Appendix D.
7. Submit and implement a written Project Safety Program. The Safety Program Plan will concern only ATCS technical and operational safety matters and will not address Work site safety and OSHA requirements. Thales safety analyses

shall include operational restrictions required to ensure safe train movements for each stage of implementation. A memorandum describing these restrictions shall be provided one month before anticipated revenue service date for each stage.

8. QA/QC Compliance. Comply with the Federal Transit Administration's Quality Assurance and Quality Control guidelines and develop and submit for SFMTA's review and approval a Quality Assurance and Quality Control Program for the Project. Include description of quality activities planned for this project.
9. Establish a systematic risk management process for the Project for issues related to the Work. Risk management process shall include activities in SFMTA scope that impact project delivery. Update risk matrix for every project meeting.

10. REGULAR MEETING SCHEDULE

	Meeting	Duration	Frequency	Comment
1.	Project management meeting	1 hour	Every two weeks	Review risks, schedule.
2.	Technical review meeting	4 hours	Every two weeks	Review technical activities since last meeting, planned activities.
3.	“Stand-up” meeting	15 minutes	Twice per week	Review technical progress during design, implementation, and test phases.

F. THALES STAFFING

1. Thales shall staff the project per the table below from NTP to Substantial Completion. Changes to resource commitments shall not be made without the approval of SFMTA.

Resource	Resource commitment to project	Location
Planner/Risk Manager	70%	On-site one week per month
System Engineering Manager	60%	On site one week per month

System Design Engineer	60%	On site one week per month
Project Design Authority	40%	On-site one week per month during design phase
Project Administrator	60%	Remote

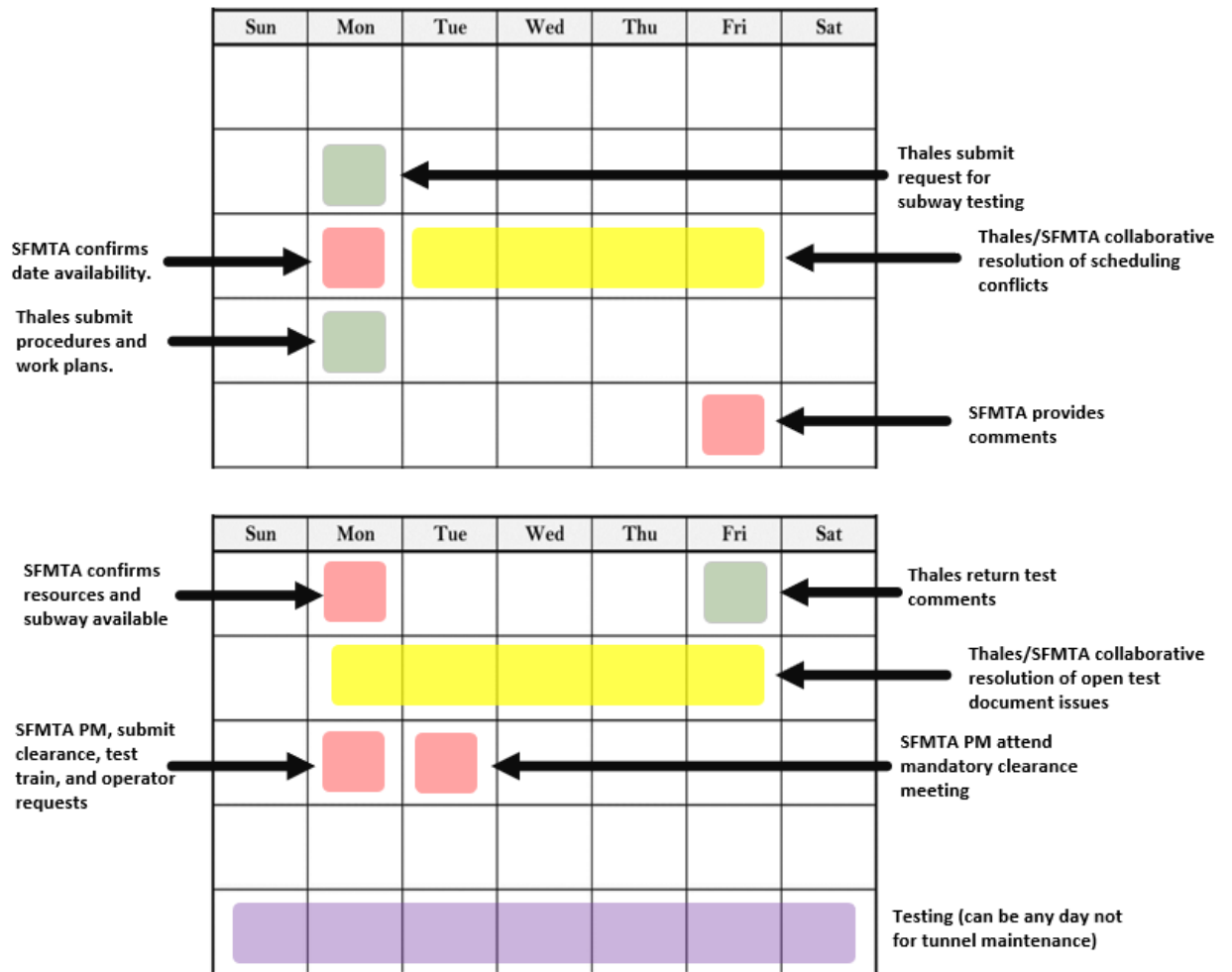
2. Qualifications of Thales Staff shall be submitted to SFMTA for approval by PM.

#### G. TESTING AND COMMISSIONING

The priority for Thales and SFMTA shall be to negotiate cooperatively around other subway activity or changes to test resources to minimize impacts to the project schedule. Thales shall provide and perform the following services and tasks:

1. Provide and implement a two month look ahead for factory and site testing. See example look ahead in Appendix C for format and required information.
  - a) Two months ahead - Thales requests reservation of test dates eight weeks before the anticipated week of testing. Test dates shall not be requested by Thales on SFMTA holiday or event days.
  - b) One month and three weeks - SFMTA confirms dates are/are not available. If necessary, Thales and SFMTA negotiate around any dates that have a conflict to ensure the most contiguous set of test dates possible.
  - c) One months and two weeks - Thales submits work plans and test procedures. Test dates finalized.
  - d) One month - SFMTA confirms detailed test resources and subway access per work plans and look-ahead.
  - e) Two weeks before – subway access finalized, and test trains and operators Not Used.
  - f) One week before – last chance to cancel testing if issue arises without hotel/flight penalty

2. Perform tests to verify that functional and safety design requirements are met. Test



procedures shall be traceable to requirements. Update look-ahead document after testing is complete as permanent record of test execution.

3. At the end of a testing phase, provide a report which includes narrative summary of testing, overall test findings, completed test forms in PDF format, summary of test results, and missing, failed, newly required, or postponed tests. Provide traceable resolution for non-passed tests and test steps. Discuss incomplete tests in the test documentation along with the reason for the incomplete or missing test and the technical and safety consequences as well as appropriate resolution.
4. The test engineer shall provide to SFMTA an email report of test activities by 11:59 PM the Work Day following a test for both FAT and SAT tests. The email report shall include a description of the test procedures executed and narrative summary of test results, including failed or not applicable test steps.
5. After SFMTA's approval of test results, Thales shall, unless the Parties otherwise agree, conduct a final commissioning test to verify the approved software and

hardware modifications function properly immediately before to placing software into revenue service.

6. Submit detailed Work Plans to SFMTA for review and approval in advance of proposed site work. See work plan example in Appendix D. The SFMTA's decision to proceed with testing will be based on review and approval of Work Plan materials.
7. Provide the SFMTA on-site assistance by technically qualified representatives for the duration of operational field testing. Each of said representatives shall remain on the job site while testing is being performed and shall be on-site for two weekdays after a new system component and/or software is placed into revenue service.
8. Provide Submittals of test procedures and test results in PDF format without track changes.
9. The following test scenarios shall be developed by Thales into test procedures and tested in the factory and during field testing. These scenarios shall be tested at each phase of functionality release.
  - a) Operational scenarios indicated in functional requirements for auto, NCT, and CCT train modes. Which operational scenarios to test are at the discretion of the Engineer.
  - b) NextBus routing of train turning back at West Portal W1 crossover. NextBus tracking of trains.
  - c) Baseline throughput of trains at West Portal station is maintained.
  - d) Thales regression testing to ensure baseline SMC functionality is not changed.
10. Thales shall provide documentation related to change requests (CRs) raised to address test failures or software issues raised during the design and test of the system. These change requests shall be linked to the verification test in the SRTM and be notes therein.
11. At completion of Thales site testing and SFMTA Internal Demo, Thales engineers will have two work days to compile test results and present to SFMTA. Thales test engineers to remain in San Francisco as test resulted are compiled and be present for test results review meeting at morning of third work day. SFMTA to make go/no go decision within two work days of test results review meeting. Commissioning to occur on first Sunday AM two weeks after acceptance by SFMTA. Thales engineer to stay on-site that Sunday and Monday.

## H. SFMTA INSPECTION AND REVIEW

1. The SFMTA may delegate to an outside consultant the review of Project documentation, including but not limited to: design drawings, schematics, operations and maintenance documentation, test reports, test procedures and verify that they are complete, operable, fully documented, and compliant with

specifications and contract provisions. Should the SFMTA or its contractor find the documentation or the Work deficient, Thales shall make the necessary changes to correct the deficiencies. The SFMTA's contractor will be required to sign appropriate non-disclosure agreements. The SFMTA contractor shall not be a competitor of Thales. Review by a contractor will be included within the time limits established by Section 2.b.

2. Thales's Work shall be subject to inspection and tests by the SFMTA and by others authorized by the SFMTA. Inspectors that are not SFMTA employees will be required to sign a nondisclosure agreement to protect Thales's proprietary information. The SFMTA's tests, inspection, or review of the Work is only for the information and benefit of the SFMTA and shall not relieve Thales of its responsibility to provide quality control measures and ensure that the Work strictly complies with specifications and requirements of the Contract Documents. The SFMTA's review, inspection, or test of the Work or part of the Work shall not constitute or imply acceptance of the Work or part of the Work. Inspections or tests shall not relieve Thales of responsibility for damage to or loss of the Work prior to acceptance or affect the continuing rights of the SFMTA after acceptance of the completed Work.
3. SFMTA Engineer will lead 15-minute meetings twice a week to track progress of both Thales and SFMTA staff during design, software implementation, and test phases.

## I. WORKSHOPS

Thales shall provide and perform the following services and tasks:

1. Project Scope Workshop. Develop and implement an on-site Collaborative (SFMTA/Thales) Workshop for the SFMTA Project team. The Workshop will include a detailed review of the Project scope.
2. Subsystem and interface requirements review Workshop. Develop and implement on-site Collaborative Workshops for the SFMTA Project staff and Muni operations and maintenance staff to finalize language of detailed subsystem and interface requirements specifications.
3. FAT and SAT readiness review. Develop and implement on-site Collaborative Workshop(s) detailing the overall SAT and commissioning strategy, and describing test and commissioning procedures for SFMTA project, safety, operations and signal maintenance staff.
4. Engineering test, FAT results review, and SAT results review - Lead meeting discussing results of each test phase. Meeting shall occur after submittal of test report (if applicable). Meeting topics shall include summary of testing, overall test findings, summary of test results, and missing, failed, newly required, or postponed tests. Provide traceable resolution for non-passed tests and test steps. Discuss incomplete tests along with the reason for missing the test and the technical and safety consequences as well as appropriate resolution. Schedule test meeting within five (5) Working Days after completion of a testing phase.
5. Minutes and Workshop Records - Prepare meeting minutes.
6. Workshop Results. Incorporate results of Workshops into design, construction,



and test documents relevant to Workshop subject matter.

7. All Workshop materials shall become the property of SFMTA, except for items containing proprietary intellectual property. Thales shall continue to be the sole and exclusive owner of intellectual property rights included in the materials. SFMTA shall have the right to use, release, disclose, copy, and reproduce the written Workshop materials solely for the SFMTA's internal operations and purposes except if item includes Thales proprietary intellectual property, and as may otherwise be required by law.
8. Develop workshop agenda indicating Workshop goals, discussion topics, resources required, and activities on a half-hour level for the duration of the Workshop session. Provide materials for Workshop participants to review five Work Days before the Workshop. The SFMTA's review and approval of Workshop materials may require editing of existing text, addition of text, the removal of text, re-organization of documentation sections, modification of existing illustrations and schematics or addition of illustrations and schematics for conceptual clarity, changing of page layout attributes, and wholesale revision as determined by the SFMTA. The SFMTA's decision to proceed with a Workshop will be based on review and approval of the relevant Workshop materials.
9. Workshop schedule for the two SMC releases

	<b>Workshop Description</b>	<b>Duration</b>	<b>Occurrence</b>	<b>Comment</b>	<b>Attendance Required in Person</b>	<b>Attendance Required Remotely</b>
1	Project overview workshop	4 hours	1	After NTP. On-site.	SEM, Planner, PM	PDA
2	WBS development workshop	4 hours	1	Brainstorm WBS elements. On-site.	SEM, Planner, PM	Safety, Requirements, PDA, CM, IVVQ
3	Risk management workshop	4 hours	1	Brainstorm project risks. On-site.	SEM, Planner, PM	Safety, Requirements, PDA, IVVQ
4	Subsystem and interface requirements review Workshop.	4 hours	3	Before software implementation stage.	SEM, Planner, Requirements, PM, PDA	IVVQ

5	FAT and SAT readiness review	4 hours	4	Before each round of FAT and SAT testing, for two releases.	SEM, Planner, PM, IVVQ	Safety, Requirements, PDA, Quality, CM
6	Engineering test, FAT results review, and SAT results review	4 hours	4	After each round of FAT and SAT testing, for two releases.	SEM, Planner, PM, IVVQ	Safety, Requirements, PDA, Quality, CM
7	OpSim demo to SFMTA stakeholders	4 hours	2	Before each round of FAT testing.	SEM	none
8	Meetings with SFMTA safety to discuss hazards related to W1 operation.	4 hours	5	none	none	Safety, SEM, Planner
9	Project retrospective	4 hours	4	Conference call with project participants after design and test phases.	none	Safety, SEM, Planner, Requirements, PM, IVVQ

## J. DOCUMENT DELIVERABLES

Thales shall perform the following services and tasks and provide the documents and deliverables listed below:

1. Provide document deliverables indicated below and as described elsewhere in this Appendix
  - a) Project Management Plan
  - b) Risk Register
  - c) Submittal and RFI register
  - d) System Engineering Plan
  - e) QA/QC Plan
  - f) Safety Program Plan

- g) FAT, SAT and Commissioning Test Plans
- h) FAT, SAT and Commissioning Test Procedures
- i) Test Reports
- j) Operational restrictions before each revenue release
- k) Memorandum verifying that ATCS meets design and safety requirements are met before the commissioning of each release
- l) System Requirements Traceability Matrix

K. MANUAL UPDATES

Thales shall provide and perform the following services and tasks

1. Thales shall update the following ATCS documents:

- a) OpSim manual
- b) Common Tables Definition
- c) Central Control Operator Manual Vol. 1
- d) Central Control Operator Manual Vol. 2
- e) Central Control Operator Manual Vol. 3
- f) Thales Application Interface Control
- g) ATCS Integrated Operations Plan
- h) ATCS track plan

L. SUBMITTALS AND RFIs

1. THALES'S RESPONSIBILITIES

- a) Thales shall furnish Submittals and Resubmittals as required by the agreed upon Submittal Schedule to the SFMTA in advance (based on the complexity and size of the Submittal) to allow SFMTA time for review, discussion and resolution. Thales shall maintain a Submittal Register as follows:
  - i. Maintain a Submittal and RFI register to show document deliverables requiring review and approval by SFMTA and listing the document name, version, version date, and document/review status.

- ii. Update Submittal and RFI register for review at progress meetings to reflect status of Submittals, late Submittals, and upcoming due Submittals.
- b) Thales shall not start Work for which Submittals are required until the Submittals are approved by the SFMTA. Delays caused by substantially or materially incomplete or reasonably rejected Submittals (and Resubmittals) shall be considered Thales caused delays. Delays caused by SFMTA's failure to respond to the Submittal or Resubmittal within 10 Work Days of receipt, shall be considered SFMTA caused delays.
- c) Where a Submittal is substantively acceptable to the SFMTA but requires further clarification or is missing information, the SFMTA may respond to the Submittal with an "Acceptance with Comments," in which case Thales may proceed with the Work of the Submittal but shall resubmit the corrected Submittal within 10 Work Days.
- d) SFMTA comments and responses to Thales' Submittals shall not constitute a Contract Modification or other modification of the Contract Documents. The Contract Documents may only be amended by a properly executed written contract modification.
- e) The file formats of electronic versions of document Submittals shall be Adobe Acrobat 10, unsecured PDF format. Provide table of contents hyperlinked to document sections and accessible via Acrobat bookmarks. Filenames for submitted documents shall be in the following format: documentName-documentNumberdocumentDate.PDF.

## 2. SFMTA REVIEW

- a) Submittals will be reviewed by the SFMTA for conformance to requirements of the Contract Documents and marked with the date of review.
- b) The SFMTA will respond to a Submittal within 15 Work Days after receipt or as provided in the agreed Submittal Schedule. Should SFMTA fail to respond within the stated time period, each Day after the applicable time period shall be considered a SFMTA delay.
- c) Approval of a Submittal does not constitute an authorization for or a request for a contract modification or Contract Modification. Approval of a Submittal does not excuse Thales from correcting later discovered errors or problems in a Submittal or otherwise excuse defects in the Work.

## 3. RE-SUBMITTALS

- a) Thales shall revise and resubmit a Submittal as required in accordance with the SFMTA's review; Thales responses shall be on a form supplied by the SFMTA.

- b) Thales shall ensure that Resubmittals only contain items included in the original Submittal. Resubmittals shall be indicated by adding a sequential draft number to the original Submittal number.
- c) Thales shall explain additional changes to a Submittal (that is, changes other than those requested by the SFMTA) in an enclosed memo or where applicable in a notation on a design drawing or document that is easily identified as a change to be reviewed by SFMTA.
- d) SFMTA will respond to Resubmittals in accordance with Section 2.b.

#### 4. PRODUCT DATA (Not Applicable)

#### 5. TEST PROCEDURES, CERTIFICATES, AND REPORTS

- a) Thales shall provide FAT, SAT and Commissioning test procedures, reports and certificates.
- b) Submitted test procedures and certificates shall:
  - i. Provide a concise statement of the test purpose and objective.
  - ii. List documents required to perform the test by name, document number and revision level. For example: schematics, wiring diagrams, configuration control lists
  - iii. Required test equipment including model numbers, if applicable, shall be clearly specified in this section. Test equipment including sensors and transducers shall be calibrated before testing commences and certificates for the same shall be enclosed with the test data sheets. Tests performed with uncalibrated equipment shall be void. Thales shall not assume SFMTA will provide test equipment.
  - iv. Describe the steps that must be taken to safely and effectively conduct the test, including precautions, specific placement of personnel to witness results, etc. The test sequence shall be written in a step-by-step format. Data sheets shall be attached to the test report as described below.
  - v. For each test step, describe specifically the criteria upon which the equipment, system, and other components and/or software change can be judged to have passed the test. Test procedures shall be linked to subsystem requirements. Test procedures not linked to requirements shall be identified and justified in documentation submitted in the test planning stage.
  - vi. Include test notes section labeled "Notes" with test procedure headers to record failures, substitutions, data, and other pertinent notes to document problems encountered and observations made during testing. Header includes test procedure number, test procedure

revision, test procedure name, date, and tester.

c) Submitted test certificates shall:

- i. Be typed or printed legibly.
- ii. Use nomenclature consistent with overall Project nomenclature.
- iii. Test steps shall be stated in test certificates and test reports as "passed," "failed" or "NA" ("Not Applicable") or "Future" only. No other markings are acceptable.
- iv. Provide test certificate number and test date on each page.
- v. Provide detailed data required to be collected by test procedure steps. Information shall be provided where indicated on the test forms; spaces on forms shall not be left blank.
- vi. Provide written narrative justification for number of test cases performed if actual performed is less than total number of test cases planned.
- vii. Provide written narrative justification and traceable resolution for each field marked "failed" or "NA."
- viii. Provide written narrative justification for test prerequisites not met.
- ix. Provide written narrative justification for a deviation from test procedure including using data log analysis instead of visual inspection.
- x. Data sheets and logs shall be referenced in the test certificate. Each attached data sheets and data log shall be labeled with proper header including test procedure number, test procedure revision, test procedure name, date, and tester. Legibly comment data sheet to indicate where in data required for each test step to be passed was verified.
- xi. Provide explanations as required in section of test procedure marked "Notes."

M. ADDITIONAL PROVISIONS

1. The SFMTA will provide staff support to provide site and equipment access, as agreed upon in approved site-specific Work plans written by Thales.
2. The SFMTA Project Engineer is solely responsible for approving the design, coordinating Workshops, authorizing Work, approving Submittals, and clarifying technical issues, unless otherwise agreed upon by the parties. Thales shall communicate with the SFMTA through the SFMTA Project Engineer concerning technical issues.
3. The SFMTA Project Manager shall be Thales' point of contact concerning issues of price, schedule, scope of Work and Contract Modifications. Thales shall confirm with the Project Manager understandings and agreements Thales may make with SFMTA Operations and Maintenance personnel, which Thales shall memorialize in writing and submit to the SFMTA Project Manager.
4. Thales Project Engineer is responsible for coordinating technical submittals,

workshops, and clarifying technical issues. SFMTA shall communicate with Thales Project Engineer concerning technical issues related to this Contract.

5. Thales Project Manager shall be the point of contact for SFMTA concerning issues of price, schedule, scope of Work, and Contract Modifications related to this Contract.

6. This Purchase Order may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one of the following ways: (1) Contract Modification agreed by the parties, or (2) Directive issued by the SFMTA

7. The SFMTA reserves the right during the Work to direct Thales to replace key personnel, upon thirty (30) Days' notice, who the SFMTA, providing written notice, reasonably determines is unqualified or an impediment to the timely and successful completion of this Project. Thales shall be solely responsible for costs related to the replacement of such individual(s).

#### N. TIME ALLOWANCE FOR COMPLETION OF WORK

1. Time and minimum interference with SFMTA transit services and inconvenience to the public are of the essence in Thales' performance and completion of the Work.
2. Thales shall be responsible for maintenance and protection of the completed Work until the SFMTA acknowledges that the Work has reached Substantial Completion.
3. When performing testing or other Work in the tunnels, on track way, or in equipment rooms, or performing other Work that disables train control, Thales shall set a checkpoint within the designated period to perform that Work at which time Thales will assess and confirm whether Thales can complete the Work or whether the Work shall be suspended so that train control is timely returned to normal function and scheduled trains and transit service are not delayed.
4. Thales shall not schedule testing or otherwise interfere with Muni's transit operations on the following holidays and events:
  - a) Nike Women's Marathon
  - b) Halloween
  - c) New Year's Eve and Day
  - d) Chinese New Year Parade
  - e) Saint Patrick's Day Parade
  - f) Bay to Breakers Weekend
  - g) Cinco de Mayo Celebration and Carnival Parade
  - h) Pride Parade Weekend
  - i) July 4th
  - j) SF Marathon
  - k) All Giant's Baseball Home Games
  - l) Fleet Week
  - m) Other Official City Holidays

#### O. CONSTRUCTION COORDINATION REQUIREMENTS

1. Thales is advised that there may be outside contractors or City employees working within areas to which Thales requires access. Thales shall be

responsible for coordinating access to such areas through the SFMTA Project Manager. To minimize cost exposure to Thales, SFMTA must notify Thales at least 6 working days of a cancellation or reduced site access. Where cost exposure is realized by Thales, financial compensation will be provided by SFMTA due to a cancellation or reduced site access.

P. DELAY MANAGEMENT

Responsibility for delays causing changes to milestone dates:

1. For a change to the Project schedule milestone dates, whether caused by SFMTA or Thales delays, Thales shall provide a retrospective time impact analysis within five Work Days of the delay. This analysis shall describe the causes of the delay and include a recovery plan and a revised Current Schedule. If SFMTA decides to recover a project milestone, and if delays are caused by SFMTA, Thales shall be compensated in whole for costs associated with schedule recovery. If delays are caused by Thales, Thales shall not be compensated for the milestone recovery.
2. If SFMTA cannot guarantee a minimum of seven hours for any week requested by Thales, SFMTA and Thales shall coordinate to minimize impact to milestone and Substantial Completion dates. Potential cost impact if the dates are not recoverable.
3. If there are changes to scheduled test resources between the time test dates finalized (a month two weeks) and six calendar days before test, SFMTA and Thales shall coordinate to minimize impact to milestone and Substantial Completion dates. Potential cost impact if the dates are not recoverable.
4. If there are changes to scheduled test resources less than six calendar days before testing is scheduled, SFMTA and Thales shall coordinate to minimize impact to milestone and Substantial Completion dates. Potential cost impact if the dates are not recoverable. If SFMTA delay, SFMTA reimbursement of travel costs for Thales.
5. If Thales testing takes longer than planned and there is an impact on the milestone dates, SFMTA and Thales shall coordinate to minimize impact to milestone and Substantial Completion dates.
6. A Day where less than 50 percent of contractually mandated test time is available to Thales due to changes in SFMTA Resources is considered a cancelled test Day and the resulting delay shall be deemed an SFMTA caused delay. A Day where less than 50 percent of contractually mandated test time is available to Thales due to changes in Thales' availability or resources is considered a cancelled test Day and a resulting delay shall be deemed a Thales-caused delay. A Day in which more than 50 percent but less than 100 percent of contractually mandated test time is available, the percentage of non-available test time due to changes in SFMTA Resources shall be deemed a SFMTA-caused delay. A Day in which more than 50 percent but less than 100 percent of contractually mandated test time is available, the percentage of non-available test time due to changes in Thales Resources shall be deemed a Thales-caused delay.
7. Float identified in the Baseline or Current Schedule is jointly owned by SFMTA and Thales. Thales shall notify the Engineer of use of float, which shall be subject to SFMTA review and approval as part of the SFMTA's review of the Current Schedule.



8. Scheduling constraints, such as start on dates, finish on dates, and sequencing other than finish to start, start to start, start to start with lag time, and finish to finish, shall be clearly identified and shown in the Baseline Schedule and Current Schedule updates.

Q. GENERAL SCHEDULE REQUIREMENTS

**Article 4** Description

1. This Section specifies the requirements for Project planning, scheduling, and progress reporting that are to be performed by Thales, and the qualifications and requirements of Thales's Scheduler.
2. Thales shall employ Critical Path Method scheduling (CPM) for planning, scheduling and reporting the progress of the Work.

**Article 5** Scheduling Software

1. Thales shall use P6 scheduling software for computer generated tabular reports and logic network graphics.

**Article 6** Schedule Submittal Procedure

1. Within 15 Working Days of approval of the WBS, Thales shall submit for SFMTA review and approval a proposed Baseline Schedule. SFMTA shall review and provide comments within 10 Work Days of receipt thereof.
2. Thales shall submit a Current Schedule (as described in Section 20.B.5) in two successive parts:
  - a) A preliminary update Current Schedule, which is an update of the previous Current Schedule, shall be submitted prior to schedule and progress review meeting to indicate what has changed from the previous month's Current Schedule.
  - b) The Current Schedule, which shall incorporate the comments from the schedule and progress review meeting, shall be submitted as the final Current Schedule.

**Article 7** Current Schedule Meeting

- a) The Current Schedule is to be submitted for SFMTA's review and to resolve schedule activity delays. A satisfactory updated Current Schedule shall meet the following minimum conditions:
  - i. Current Schedule shall consist of the updated overall CPM Logic Network and relevant supporting reports and documentation.
  - ii. Meets Contract requirements.
  - iii. The Current Schedule must show the actual start dates of activities. If an activity has not been completed as of the update date, a percent completion and remaining duration shall be indicated for that activity. Completed activities shall indicate the actual completion dates and 100% completion.

- iv. The approved Contract completion date shall be shown.
  - v. If the Current Schedule shows a Contract completion date that is earlier than the approved Contract completion date, the time difference shall be considered Project float. Thales agrees that if Contract Work is accomplished on or prior to the approved Contract completion date, Thales is not entitled to damages, loss of profit or additional compensation because of SFMTA's action or inaction in maintaining the Current Schedule.
  - vi. If the Current Schedule shows a later Substantial Completion date than the approved Contract Substantial Completion date, Thales will propose ways to overcome the delay at the next schedule and progress review meeting. If, after the meeting and updating of the Current Schedule, the Substantial Completion date is still later than the approved Contract completion date, the Contract is considered behind schedule. Thales or SFMTA may be liable for costs related to extending the Substantial Completion date.
- b) Thales shall submit a Current Schedule showing relevant schedule updates and shall meet with SFMTA Project staff to review the progress of the Work at the progress review meetings. Thales shall provide PDF copies of the schedule as part of each update. Prior to each meeting, Thales shall update the prior month's Current Schedule. Appropriate subcontractors, suppliers, utilities representatives and other City agencies may be asked to attend.
- c) During the schedule and progress review meeting, the Preliminary Current Schedule including required Supplemental Schedules and relevant events affecting the schedule will be discussed in detail. SFMTA may request Thales to revise or correct the data for the Current Schedule due to inaccuracies or conflicts with the Contract Documents and suggest ways to modify the schedule because of schedule activity delays. SFMTA's participation in the schedule review process shall not relieve Thales from the approved Substantial Completion dates in effect
- d) SFMTA does not approve a Current Schedule submittal. SFMTA may reject a Current Schedule when SFMTA finds that the Current Schedule does not meet the minimum conditions listed above. If SFMTA rejects such Current Schedule submittal, SFMTA will inform Thales the reasons for such rejection and request a resubmittal. If Thales disagrees with SFMTA's reasons for rejection, Thales shall resubmit the Current Schedule, revised as requested by SFMTA, and explain the disagreements in written narrative form.

#### **Article 8 Approval and Revision of Schedule**

1. Failure by Thales to include an element of Work required for the performance of the Project shall not excuse Thales from completing Work required within applicable milestone completion dates, notwithstanding the Engineer's approval of the CPM diagrams. Items not specifically stated in the schedule or description of a Milestone shall, if reasonably applicable, be deemed incidental Work and not critical activities. If activities are found to be missing from the schedule after the Engineer's approval, Thales shall submit a revised schedule and WBS to include those items. The revised schedule shall be subject to review and approval by the Engineer as described in "Revised Schedule" provisions of this Purchase Order. No extension of time will be granted because of errors or omissions on the schedule unless the Parties agree otherwise. Thales shall incorporate necessary activities to complete the Work.
2. The CPM schedule and analysis when approved by the Engineer shall constitute the agreed Work Schedule throughout the construction period. No alteration of the logic, duration of activities, etc. will be allowed without the approval of the Engineer.

**Article 9** The Baseline Schedule shall comply with the following:

1. A maximum of thirty (30) Work Days duration shall be given to each CPM activity. An activity in excess of the thirty (30) Days shall be broken down in detail so that each detail activity will not exceed the thirty (30) Work Day maximum.
2. All activities shall have succeeding activities except Final Acceptance. Thales shall demonstrate the necessity of having dummy activities.
3. The schedule shall include separate activities indicating:
  - a) Preparation and submittal of submittals.
  - b) Review of submittals by SFMTA
  - c) Software development and testing activities
  - d) System integration and integration testing activities
  - e) Interface development and testing activities
  - f) System and subsystem requirements development activities
  - g) SFMTA review and approval of Submittals.
  - h) SFMTA inspection of Work and review of documentation and certificates for Substantial Completion
  - i) Training
  - j) Punch list
  - k) Post-installation check-out by Thales
  - l) Construction activities by SFMTA required to support work

4. Where the SFMTA is responsible for an activity, Thales shall discuss the preceding activities, succeeding activities, duration, and constraints of the activity with SFMTA during the Baseline Schedule review meeting.
5. Negative float will not be allowed on the CPM schedule on the initial Submittal. Initial CPM schedule with negative floats shall be rejected. Thales shall provide resources, personnel and hours (including extended hours) to perform the Work within the completion time and price stated in the Purchase Order.
6. The CPM schedule's critical activities shall not exceed fifteen percent (15%) of the number of activities. Critical activities are those that have less than five (5) Days float.

**Article 10**      Requirements of the Project scheduler

1. Thales' Project Scheduler shall attend Project and schedule related meetings that have a direct or indirect impact on the Project schedule.

**R. TIME ALLOWANCE FOR TESTING**

A. Thales shall complete Work, including Work under allowances subject to the following shutdown periods:

1. SFMTA will provide minimum of 7 hours a week for site testing (2 weekdays and one Saturday night). Maximum available in a week is: 3 weekdays x 2 hours + 3 hours on Saturday + 4.5 hours on Sunday = 13.5 hours. More than 7 hours may be available but not guaranteed. Non-revenue test time made available to Thales shall include all test engineer work required to bring ATCS to test ready state and then back into condition ready for revenue service.
2. Thales and SFMTA agree to a cumulative maximum possible 28 hours of site testing within one calendar months before each release. The site test effort needs to be bounded so the schedule can be developed. This is 21 hours available for execution of Thales procedures to verify requirements and 7 hours of SFMTA internal hands-on demo with Thales test engineer oversight.
3. Thales shall design the Work to occupy minimum test area and subway resources.

**S. LIQUIDATED DAMAGES**

NA

**T. SFMTA ACCEPTANCE OF A SOFTWARE RELEASE**

1. SFMTA will conduct an Internal Demo after Thales SAT testing is complete. Based on the results of the SFMTA Internal Demo and issues raised during Thales SAT testing, SFMTA will make decision to place software into revenue service within three work days of Thales test results review meeting. If relevant system design was verified during SAT then SFMTA must initiate contract change to address a software issue, if a requirement was not met then Thales

must address with new release.

#### U. SUBSTANTIAL COMPLETION

1. Thales shall notify the SFMTA in writing when Thales considers that the Work has reached Substantial Completion and request that the SFMTA prepare a Notice of Substantial Completion. Completion of training and placement of software releases delivered by this project into revenue service shall be a condition precedent to SFMTA's issuing a notice of Substantial Completion. Thales shall attach to its request a preliminary punch list of items expected be completed or corrected before Final Acceptance.
2. Within thirty (30) Work Days from receipt of Thales's written notification, the SFMTA will determine whether the Work is has reached Substantial Completion. If the SFMTA determines that the Work is not substantially complete, the SFMTA will provide Thales with a list of deficient Work (incomplete or non-conforming Work) that Thales shall correct or complete before the SFMTA may determine whether the Work has reached Substantial Completion.
3. When Thales has completed items on the list of deficient Work, Thales shall request a second review by the SFMTA to verify that the Work has reached Substantial Completion. If the SFMTA determines that the Work is not substantially complete, the SFMTA will follow and repeat the same procedure as for first inspection until the Work has reached Substantial Completion or the SFMTA has determined that Thales cannot or will not complete the Work.
4. When the SFMTA determines that the Work has reached Substantial Completion, the SFMTA will issue a Notice of Substantial Completion, which shall establish the date of Substantial Completion.
5. At the time of delivery of the Notice of Substantial Completion, the SFMTA will deliver to Thales a written determination as to the division of responsibilities regarding close-out requirements including, but not limited to, security, operation, safety, maintenance, insurance, and warranties.

#### V. FINAL ACCEPTANCE; FINAL ESTIMATE, AND PAYMENT

1. Thales shall complete punch list items within two months of Substantial Completion.
2. The SFMTA shall have no obligation to execute final acceptance and make final payment until Thales furnishes the SFMTA with the following:
  - a) As-built system drawings, as-built schedule, as-built risk table, as-built SRTM, and spare parts as required herein;
  - b) Original signed copy of an acknowledgment that, on condition of final payment, there are no outstanding claims and release, or statement of claims related to the Purchase Order;
  - c) Evidence satisfactory to SFMTA to establish that Thales is not delinquent in payments to its employees and/or creditors for labor and materials included in the payments;
  - d) Releases for unpaid or otherwise unresolved stop notices or other liens actions.

## W. SAFETY CERTIFICATION SUPPORT

1. The SFMTA shall have primary responsibility for obtaining CPUC approvals and safety certification of the Work. The SFMTA may contract with an outside contractor to manage the safety certification of this Project. Thales shall provide the following services regarding the safety certification of the Work
  - a) Review safety documents, defined as original Preliminary Hazard Analysis (PHA), Fault Tree Analysis, Failure Mode and Effects Analysis, and safety requirements to evaluate the impact of the Project.
  - b) Prepare an update to the original safety documents to update the issues identified in safety analysis review and safety workshop.
  - c) Document and track hazards and their resolutions and provide finalized hazard documentation with resolutions for each hazard at completion of the Project.
  - d) Implement actions required to address safety issues during the design and development phase of the Project.
  - e) Provide Design support to verify necessary safety functions have been incorporated into the software/hardware design. Thales shall provide safety requirements, test certificates, test analyses, and related documentation for review by SFMTA during testing.
  - f) Participate in safety certification review committee meetings through Substantial Completion of the Project per the workshop schedule.
  - g) Verify through design review and audit that safety, consistent with the requirements of the Safety Requirements, is designed into the system.
  - h) Verify through design review and audit that hazards associated with the ATCS are identified, evaluated and eliminated, or the associated risk reduced to a level as defined in the safety documents.
  - i) Verify actions taken to eliminate hazards or reduce risks to an acceptable level are implemented and documented.
  - j) Thales shall permit SFMTA's contractors to review Thales' safety related factory acceptance test and safety related site acceptance test procedures and test certificates to verify that tests are conducted and documented in the proper manner. The Contractor will have the same time limit (15 Days) as SFMTA in reviewing deliverables as defined in Section 2.b. The scope of the review shall be limited to the documentation related to the Wayside Updates Project.
  - k) Thales shall not be responsible for costs of the SFMTA's Contractor. If the Contractor requests to witness a scheduled test but is not able to attend, and SFMTA requires Thales to repeat the test for the Contractor, the SFMTA shall compensate Thales for the costs of the additional test and unavoidable delays.

## X. RISK MANAGEMENT

Thales shall establish a systematic risk management process for the Project:

A. Perform risk analyses for the Project integrated with the Baseline Schedule, that identifies, ranks and provides mitigation measures for major risk elements. The process shall include analyzing initial risk factors; ongoing risk identification, analysis, and treatment of risk factors throughout the life cycle of the Project. Thales shall prepare an initial risk register for SFMTA's review and approval.

B. Create a Risk Register to identify and document known risk factors using the table shown in Appendix F. After the SFMTA's review and approval of a draft risk register, present the risk register in meetings per workshop schedule with SFMTA Project and transit operations staff to review and finalize the Risk Register. Project risks shall be updated and reviewed with SFMTA Project and transit operations staff every two weeks, project meetings shall include Risk Register updates.

C. Manage the risk management process, including on-going monitoring of the resolution of risk related issues.

D. Submit a Risk Register addressing resolution of Project risks as a Project deliverable at Substantial Completion. Discuss unresolved medium and high-level risks with the reason for lack of resolution and the technical and safety consequences.

E. The responsibility for managing risk is shared between Thales and the SFMTA. However, decision authority for selecting whether to proceed with mitigation strategies and implement contingency actions, especially those that have an associated cost or resource requirement, will rest with the SFMTA PM.

## Y. TRAINING

1. Thales shall provide on-site training for SFMTA central operations staff.
2. Training shall include an overview of changes to SMC and VCC commands, displays, and functionality in four (4) 4-hour sessions for Control Operators scheduled to accommodate shift-work. Maximum students per class shall be six students.
3. The SFMTA may video record training sessions. The SFMTA shall use the recorded training sessions only for staff refresher training and to train newly hired personnel, and for no other purpose. SFMTA acknowledges that the training sessions may present only general principles regarding ATCS familiarization and operation and may not cover every possible situations or problems that might arise. SFMTA will treat the recorded training sessions as Thales' confidential information. SFMTA acknowledges that only qualified individuals who are familiar with ATCS functions, requirements, and operation should perform work associated with ATCS software or equipment. Thales will not be responsible for the SFMTA's misuse or misapplication of the information contained in a recorded training program.

## Z. WARRANTY

1. Thales shall warrant the changes to the software code for a period of two years after Substantial Completion. Software issues that impact the stability or functionality of the SMC, VCC, or SCS whose root cause is traced to changes to the software code made to implement the West Portal Optimization shall be designed, engineering, tested and deployed into revenue service free of charge.

## AA. PROJECT DELIVERY SCHEDULE

DELIVERABLE	CALENDAR DAYS FROM NTP TO COMPLETE
Project Scope & Schedule Workshop	1 week
Work Breakdown Structure (WBS) Workshop	1 week
Risk Workshop	1 week
Requirements Workshop	1 week
Delivery of WBS	2 weeks
Acceptance of finalized WBS	3 weeks
Thales schematic drawings loop and axle counter	2 weeks
Submission of risk table	2 weeks
Acceptance of risk table	3 weeks
Delivery of baseline schedule	3 weeks
Acceptance of baseline schedule	4 weeks
Thales schematic drawings of loop and axle counter installation location	4 weeks
Submission of Requirement Traceability Verification Matrix (RTVM)	8 weeks
Acceptance of RTVM	10 weeks
Completion of FAT – Phase 1	8 months
Delivery of RTVM for Phase 1	8 months
Training of phase 1 functionality	9 months
Updated manuals	9 months
SFMTA acceptance of software release – phase 1	10 months
Completion of FAT – Phase 2	11 months
Delivery of RTVM for Phase 2	11 months
Delivery of training of phase 2 functionality	12 months
Delivery of updated manuals for phase 2	12 months



SFMTA acceptance of software release – phase 2	12 months
Delivery of finalized project documentation	15 onths

**Appendix B – Milestone Payment Schedule**

**TOTAL CONTRACT AMOUNT: *[Insert Price]***

MILESTONE	DESCRIPTION	UNIT PRICE	PAYMENT PERCENTAGE
1	Acceptance of finalized WBS, risk table, baseline schedule, and Thales schematic drawings of loop and axle counter installation location	Lump Sum	5%
2	Acceptance of Requirement Traceability Verification Matrix (RTVM)	Lump sum	5%
3	SFMTA acceptance of software release – phase 1	Lump sum	30%
3.1	Acceptance of Requirement Traceability Verification Matrix (RTVM) for Phase 1 after FAT and SAT	Lump sum	10%
3.2	Completion of training for phase 1 functionality	Lump sum	10%
3.3	Acceptance of updated manuals for phase 1	Lump sum	10%
4	SFMTA acceptance of software release – phase 2	Lump sum	40%
4.1	Acceptance of Requirement Traceability Verification Matrix	Lump sum	20%

	(RTVM) for phase 2 after FAT and SAT		
4.2	Completion of training for phase 2 functionality	Lump sum	10%
4.3	Acceptance of updated manuals for phase 2	Lump sum	10%
5	Final acceptance, delivery of final, approved project documentation	Lump sum	20%

# Certificate of Progress Payment Template

SFMTA Contract No.  
AS-NEEDED PROFESSIONAL SERVICES

APPLICATION FOR PROGRESS PAYMENT

0  
0  
0

Application No. \_\_\_\_\_  
Period Ending \_\_\_\_\_  
Date Submitted \_\_\_\_\_  
Reference No. \_\_\_\_\_

TASK NO.	DESCRIPTION OF APPROVED TASKS	Units	Unit Price	CONTRACT		PREVIOUS PERIOD		THIS PERIOD		TOTAL TO DATE	
				QTY	AMOUNT	QTY	AMOUNT	QTY	AMOUNT	AMOUNT	% COMPLETE
1	Project Plans-Submittal	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
	Project Plans-Approval	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
2	Preliminary Design 1	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
	Preliminary Design 1	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
3	Final Design Documentation-Submittal	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
	Final Design Documentation-Acceptance	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
4	Completion of Testing A	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
	Completion of Testing B	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
5	100% Testing B1 Complete	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
5.1	100% Testing B1 Complete	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
5.2	100% Testing B2 Complete	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
5.3	Submission of Safety Letter	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
6	Completion Testing C	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
6.1	100% Testing C1 Complete	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
6.2	100% of Testing C2 Complete	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
6.3	Submission of Safety Letter	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
7	Final Acceptance	MS	\$ -	1	\$ -		\$ -		\$ -		\$ -
<b>TOTAL BASE CONTRACT:</b>					\$0.00		\$0.00		\$0.00		\$0.00
<b>TOTAL CONTRACT MODIFICATIONS:</b>											

INSURANCE STATUS (EXPIRATION DATES SHOWN):

I HEREBY CERTIFY that the above changes are actual and correct and are in accordance with the Terms and Conditions of the Agreement and said changes have not been previously submitted. I also certify that all subcontractors and suppliers who, whether directly to the Contractor or through intermediate subcontractors, performed work or supplied materials or equipment, payment for which was included in the previous progress payment received, have been paid all amounts due for all the work, materials, and equipment for which the Agency has so paid this Contractor. (PPA #1 through PPA #5)

Contractor: \_\_\_\_\_ \$0.00

VENDOR'S PROJECT MANAGER \_\_\_\_\_ DATE \_\_\_\_\_

## **Appendix C – Calculation of Charges – Direct Rates (Not Used)**

**Appendix D – Calculation of Charges – Overhead Rates (Not Used)**

## Appendix E – Requirements Traceability Verification Matrix Template

A	B	C	D	E
SyRS ID	Requirement	Statement Type	Safety	Validation Method

F	G	T
Allocation	Priority/Criticality (1-5)	

H	I	J	K	L	M
Test Procedure	Phases to be tested in (engineering test/FAT/SAT)	Verification status from engineering test	Verification status from FAT test	Verification status from SAT test	Related CRs

## Appendix F – Look Ahead Document Template

Test Day:	Time:	Trains:	# of operators needed	Requires Twin Peaks tunnel (TL/TR/both)	Requires West Portal (TL/TR/both)	Requires Duboce Portal (TL/TR/both)	Requires Ferry Portal (TL/TR/both)	Train can enter at Duboce (TL/TR/both)	Train can enter at Ferry Portal (TL/TR/both)	Requires Castro Interlocking (TL/TR/both)	R (1)
Tue, Jan 1	1:30 AM - 3:00 AM										
Wed, Jan 2	1:30 AM - 3:00 AM										
Thur, Jan 3	1:30 AM - 3:00 AM										
Fri, Jan 4	1:30 AM - 3:00 AM										

Requires Castro Interlocking (TL/TR/both)	Requires VN TO EM (TL/TR/both)	Requires MMT (TL/TR both)	East limit (track section or portal)	West limit (track section or portal)	Test areas in subway	Location train will enter

Clearance Number	Support from signal maintenance	Support from digital systems maintenance	Support from Rail Maintenance	Names of Thales staff on-site	Test procedure(s) to perform	Brief test description (please do not copy/paste test procedure names)	Risks bringing system back to service

ot	Risks bringing system back to service	Test Outcome? (% complete each test)	Notes on Test outcome and issue observed	Delay (if any) explanation	Additional Notes



# Appendix G – SFMTA Work Plan (Typical)

**RESOURCES:**

Date of work (include day of week and location in header)	Saturday Feb 9 <sup>th</sup> 2019
Time of work	1:30AM to 3:30AM
Author of work plan	Henry Cabrera
Date work plan submitted	01/04
Room access required	Yes - Van Ness Signal Room
Track areas required	1 open det. FRT4 train
Test trains required	Entry at FP
Test train location	Central Control Operators, Train operator, wayside maintenance
Thales Project manager/phone #	Mervat El-Agafy 416-272-9510
Thales staff on site/phone #	Henry Cabrera (test lead) 412-522-9753
SFMTA Operations manager/phone #	Reynold Forrest 415-471-5723
SFMTA Project Engineer	David Rogers / cell 626-295-6886
SFMTA Project Engineer	not available
SFMTA Testing Coordinator on site	not available per agreement with Transit

**TEST INFORMATION:**

New configurations/software:	DTES	X	NO
ATCS subsystems affected:	VCC & VCCB		
Summary of activities	Local Failback Testing		
Test procedures (include title)	MUNI 51.402 Verify Operation in Local Failback Mode		
Test equipment required (supplied by Thales)			
Revenue software version	SMC 8.00.00 P1 VCC 03.11.01, STC 4.05.00		
Software version under test	Revenue SW		
Hardware/firmware serial #s	N/A		
Attachments (all schematics and tracking forms relevant to work. Reference in steps)	N/A		

Approvals required before performing work:

SFMTA Project Manager \_\_\_\_\_ Date 1/29/19 not available

SFMTA Testing Coordinator \_\_\_\_\_ Date \_\_\_\_\_

ATCS Non-Revenue Signal Activity Work Plan  
Date of work: Saturday February 9th, 2019 Page 2 of 3

One work plan is required per day of test. For all sections modify number of rows as required to fully describe work. Do not delete sections or change formatting without approval of engineer. For modifications to wiring or uses of test links, please reference separate test form tracking changes to test links or wiring. This form should correspond to a step in both "Transition from" and "Transition to" tables. Test procedures executed should correspond to step in "Activity flow" for troubleshooting activities, describe expected sequence of troubleshooting activities. SFMTA Inspector: Note any deviations in the comment area.

Let risks to bringing system back to service. Reference specific work plan steps in mitigation.

RISK	MITIGATION (reference in test steps)
1. Test train & operator do not arrive on time or Revenue system is not ready to begin test.	Call train dispatcher around 10pm on test night to confirm availability of train & operator. See step B.1.
2. Test trains are not out of the system on time.	Thales Test Lead and SFMTA Inspector will work together to ensure that train is out of tunnel by 5:54M.
3. Train controllers do not understand steps required in procedure.	Test team to review procedure at 10pm night before each test. See Step A.1.

STATE MEMBER	LOCATION
1. SFMTA Testing Coordinator, not available	Not available per agreement with Transit for this test activity.
2. Thales Test Worker, Henry Cabrera	Henry Cabrera Lenox and Van Ness equipment room.
3. SFMTA Signal Maintenance, Charles Pangellian	Lenox and Van Ness equipment room.

ATCS Non-Revenue Signal Activity Work Plan  
Date of work: Saturday February 9th, 2019 Page 3 of 3

STEP	INITIAL COMMENT
Step A.1 Walk through of test procedure with train controllers.	At 10pm.
Step A.2 Call train yard and greet to determine that car and operator have been reserved.	At 10pm.

STEP	INITIAL COMMENT
Step B.1 Call train yard to verify operator and train are ready and will be dispatched shortly.	At midnight.
Step B.2 Ask Central Control to open clearance permit and ensure that track is clear of trains.	At 1:30am
Step B.3 Ask central to perform relay check in station controller regions under test.	At 1:30am

STEP	INITIAL COMMENT
Step C.1 Perform MUNI 51.402 - Verify Operation in Local Failback Mode when VCC is operational	At Van Ness

STEP	INITIAL COMMENT
Step D.1 Verify that test train has exited the system	
Step D.2 Ask central to perform relay checks in area under test.	
Step D.3 Set manual routes through the station controller regions under test.	

SPACE FOR ADDITIONAL NOTES/OBSERVATIONS:

## Appendix H – Risk Register Template

Identify Risks			Perform Qualitative Risk Analysis		
Named Risk	Risk Category	Type of Risk	Risk Impact	Risk Probability	Impact/Probability Index

	Perform Quantitative Risk Analysis			Alerts/Warnings		
Risk Priority	Risk Financial Impact	Expected Monetary Value	Contingency Reserve	Trigger that this might occur	Trigger Monitor/Risk Owner	Pr Ac TH Ac Oj

Proactive Responses		Reactive/Mitigation Responses	
Preventative Actions for Threats/ Enhancing Activities for Opportunities	Risk Owner	Plan to Control/Correct if this occurs	Risk Owner/Responsible Party

FallBack Plans	
Plan if the "Original" Response Fails	Risk Owner/Responsible Party

## Appendix I – FTA Contract Requirements

### I. DEFINITIONS

**A. Approved Project Budget** means the most recent statement, approved by the FTA, of the costs of the Project, the maximum amount of Federal assistance for which the City is currently eligible, the specific tasks (including specified contingencies) covered, and the estimated cost of each task.

**B. Contractor** means the individual or entity awarded a third party contract financed in whole or in part with Federal assistance originally derived from FTA.

**C. Cooperative Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project or Program, and in which FTA takes an active role or retains substantial control.

**D. Federal Transit Administration (FTA)** is an operating administration of the U.S. DOT.

**E. FTA Directive** includes any FTA circular, notice, order or guidance providing information about FTA's programs, application processing procedures, and Project management guidelines. In addition to FTA directives, certain U.S. DOT directives also apply to the Project.

**F. Grant Agreement** means the instrument by which FTA awards Federal assistance to a specific Recipient to support a particular Project, and in which FTA does not take an active role or retain substantial control, in accordance with 31 U.S.C. § 6304.

**G. Government** means the United States of America and any executive department or agency thereof.

**H. Project** means the task or set of tasks listed in the Approved Project Budget, and any modifications stated in the Conditions to the Grant Agreement or Cooperative Agreement applicable to the Project. In the case of the formula assistance program for urbanized areas, for elderly and persons with disabilities, and non-urbanized areas, 49 U.S.C. §§ 5307, 5310, and 5311, respectively, the term "Project" encompasses both "Program" and "each Project within the Program," as the context may require, to effectuate the requirements of the Grant Agreement or Cooperative Agreement.

**I. Recipient** means any entity that receives Federal assistance directly from FTA to accomplish the Project. The term "Recipient" includes each FTA "Grantee" as well as each FTA Recipient of a Cooperative Agreement. For the purpose of this Agreement, Recipient is the City.

**J. Secretary** means the U.S. DOT Secretary, including his or her duly authorized designee.

**K. Third Party Contract** means a contract or purchase order awarded by the Recipient to a vendor or contractor, financed in whole or in part with Federal assistance awarded by FTA.

**L. Third Party Subcontract** means a subcontract at any tier entered into by Contractor or third party subcontractor, financed in whole or in part with Federal assistance originally derived from FTA.

**M.** U.S. DOT is the acronym for the U.S. Department of Transportation, including its operating administrations.

## **II. FEDERAL CHANGES**

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between the City and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

## **III. ACCESS TO RECORDS**

**A.** The Contractor agrees to provide the City and County of San Francisco, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this Agreement for the purposes of making audits, examinations, excerpts and transcriptions.

**B.** The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

**C.** The Contractor agrees to maintain all books, records, accounts and reports required under this Agreement for a period of not less than three years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case Contractor agrees to maintain same until the City, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

## **IV. DEBARMENT AND SUSPENSION**

See Appendix E: Certification Regarding Debarment, Suspension, and Other Responsibility Matters.

## **V. NO FEDERAL GOVERNMENT OBLIGATIONS TO CONTRACTOR**

**A.** The City and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the City, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

**B.** The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

## **VI. CIVIL RIGHTS**

**A. Nondiscrimination** - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 41 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with

applicable Federal implementing regulations and other implementing requirements FTA may issue.

**B. Equal Employment Opportunity** - The following equal employment opportunity requirements apply to the underlying contract:

**1. Race, Color, Creed, National Origin, Sex** - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOT) regulations, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor,” 41 CFR Parts 60 et seq., (which implement Executive Order No. 11246, “Equal Employment Opportunity,” as amended by Executive Order No. 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

**2. Age** - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

**3. Disabilities** - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, “Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act,” 29 CFR Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

**C.** The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

## **VII. DBE/SBE ASSURANCES**

Pursuant to 49 C.F.R. Section 26.13, the Contractor is required to make the following assurance in its agreement with SFMTA and to include this assurance in any agreements it makes with subcontractors in the performance of this contract:

The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor or Subcontractor to carry out these requirements is a material breach of this contract, which may result in the

termination of this contract or such other remedy as SFMTA deems appropriate.

**VIII. PATENT RIGHTS** (*applicable to contracts for experimental, research, or development projects financed by FTA*)

**A. General.** If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under this Agreement, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the City and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the FTA.

**B.** Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (large business, small business, state government or instrumentality, local government, nonprofit organization, institution of higher education, individual), the City and Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 CFR Part 401.

**C.** The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

**IX. RIGHTS IN DATA AND COPYRIGHTS** (*Applicable to contracts for planning, research, or development financed by FTA*)

**A. Definition.** The term "subject data" used in this section means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under this Agreement. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to, computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.

**B. Federal Restrictions.** The following restrictions apply to all subject data first produced in the performance of this Agreement.

**1. Publication of Data.** Except for its own internal use in conjunction with the Agreement, Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.

**2. Federal License.** In accordance with 49 CFR §§ 18.34 and 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, "for Federal Government purposes," any subject data or copyright described below. As used in the previous sentence, "for Federal

Government purposes” means use only for the direct purposes of the Federal Government. Without the copyright owner’s consent, the Federal Government may not extend its Federal license to any other party:

**a.** Any subject data developed under this Agreement, whether or not a copyright has been obtained; and

**b.** Any rights of copyright purchased by City or Contractor using Federal assistance in whole or in part provided by FTA.

**3. FTA Intention.** When FTA awards Federal assistance for a experimental, research or developmental work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in the work. Therefore, unless FTA determines otherwise, the Contractor performing experimental, research, or developmental work required by the underlying Agreement agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of the Agreement, or a copy of the subject data first produced under the Agreement for which a copyright has not been obtained. If the experimental, research, or developmental work which is the subject of this Agreement is not completed for any reason whatsoever, all data developed under this Agreement shall become subject data as defined in Subsection a. above and shall be delivered as the Federal Government may direct. This subsection does not apply to adaptations of automatic data processing equipment or programs for the City’s use the costs of which are financed with Federal transportation funds for capital projects.

**4. Hold Harmless.** Unless prohibited by state law, upon request by the Federal Government, the Contractor agrees to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties, against any liability, including costs and expenses, resulting from any willful or intentional violation by the Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under this Agreement. The Contractor shall not be required to indemnify the Federal Government for any such liability arising out of the wrongful acts of employees or agents of the Federal Government.

**5. Restrictions on Access to Patent Rights.** Nothing contained in this section on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent. This Section do not apply to data developed by the City or Contractor and incorporated into the work carried out under this Agreement, provided that the City or Contractor identifies the data in writing at the time of delivery of the work.

**6. Application to Data Incorporated into Work.** The requirements of Subsections (2), (3) and (4) of this Section do not apply to data developed by the City or Contractor and incorporated into the work carried out under this Agreement, provided that the City or Contractor identifies the data in writing at the time of delivery of the work.

**7. Application to Subcontractors.** Unless FTA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental,

developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

**C. Provision of Rights to Government.** Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (large business, small business, state government or instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), the City and Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 CFR Part 401.

**D. Flow Down.** The Contractor also agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

**X.CONTRACT WORK HOURS AND SAFETY STANDARDS** (*applicable to nonconstruction contracts in excess of \$100,000 that employ laborers or mechanics on a public work*)

**A. Overtime requirements** - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**B. Violation; liability for unpaid wages; liquidated damages** - In the event of any violation of the clause set forth in paragraph A of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph A of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph A of this section.

**C. Withholding for unpaid wages and liquidated damages** - The City and County of San Francisco shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

**D. Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs A through D of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall



be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs A through D of this section.

**XI. ENERGY CONSERVATION REQUIREMENTS**

The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

**XII. CLEAN WATER REQUIREMENTS** *(applicable to all contracts in excess of \$100,000)*

**A.** The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 et seq. Contractor agrees to report each violation of these requirements to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA regional office.

**B.** The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

**XIII. CLEAN AIR** *(applicable to all contracts and subcontracts in excess of \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year.)*

**A.** Contractor agrees to comply with applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to the City and understands and agrees that the City will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

**B.** The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

**XIV. PRIVACY**

If Contractor or its employees administer any system of records on behalf of the Federal Government, Contractor and its employees agree to comply with the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a (the Privacy Act). Specifically, Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Government. Contractor acknowledges that the requirements of the Privacy Act, including the civil and criminal penalties for violations of the Privacy Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of this Agreement. The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

**XV. DRUG AND ALCOHOL TESTING**

To the extent Contractor, its subcontractors or their employees perform a safety-sensitive function under the Agreement, Contractor agrees to comply with, and assure compliance of its subcontractors, and their employees, with 49 U.S.C. § 5331, and FTA regulations, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations," 49 CFR Part 655.

**XVI. TERMINATION FOR CONVENIENCE OF CITY** *(required for all contracts in excess of \$10,000)*

See Agreement Terms and Conditions.

**XVII. TERMINATION FOR DEFAULT** *(required for all contracts in excess of \$10,000)*

See Agreement Terms and Conditions.

**XVIII. FALSE OR FRAUDULENT STATEMENTS AND CLAIMS**

A. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, “Program Fraud Civil Remedies,” 49 CFR Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Agreement, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA-assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

B. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

C. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

**XIX. FLY AMERICA**

The Contractor agrees to comply with 49 U.S.C. 40118 (the “Fly America” Act) in accordance with the General Services Administration’s regulations at 41 CFR Part 301-10, which provide that recipients and subrecipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

**XX. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS**

The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this

Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any (name of grantee) requests which would cause (name of grantee) to be in violation of the FTA terms and conditions.

**XXI. TRANSIT EMPLOYEE PROTECTIVE AGREEMENTS** (applicable to each contract for transit operations performed by employees of a Contractor recognized by FTA to be a transit operator)

**A.** The Contractor agrees to the comply with applicable transit employee protective requirements as follows:

**1.** General Transit Employee Protective Requirements - To the extent that FTA determines that transit operations are involved, the Contractor agrees to carry out the transit operations work on the underlying contract in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this contract and to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to the FTA Recipient's project from which Federal assistance is provided to support work on the underlying contract. The Contractor agrees to carry out that work in compliance with the conditions stated in that U.S. DOL letter. The requirements of this subsection A, however, do not apply to any contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for nonurbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth in subsections (2) and (3) of this clause.

**2.** Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a)(2) for Elderly Individuals and Individuals with Disabilities - If the contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for the state and the public body subrecipient for which work is performed on the underlying contract, the Contractor agrees to carry out the Project in compliance with the terms and conditions determined by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's letter of certification to FTA, the date of which is set forth Grant Agreement or Cooperative Agreement with the state. The Contractor agrees to perform transit operations in connection with the underlying contract in compliance with the conditions stated in that U.S. DOL letter.

**3.** Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Nonurbanized Areas - If the contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5311, the Contractor agrees to comply with the terms and conditions of the Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

**B.** The Contractor also agrees to include the any applicable requirements in each subcontract involving transit operations financed in whole or in part with Federal assistance provided by FTA.

**XXII. NATIONAL ITS ARCHITECTURE POLICY** (*Applicable to contracts for ITS projects*)

If providing Intelligent Transportation Systems (ITS) property or services, Contactor shall comply with the National ITS Architecture and standards to the extent required by 23 U.S.C. § 512, FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 FR 1455, et seq., January 8, 2001, and later published policies or implementing directives FTA may issue.

**XXIII. TEXTING WHILE DRIVING; DISTRACTED DRIVING**

Consistent with Executive Order 13513 "Federal Leadership on Reducing Text Messaging While Driving", Oct. 1, 2009 (available at <http://edocket.access.gpo.gov/2009/E9-24203.htm> ) and DOT Order 3902.10 "Text Messaging While Driving", Dec. 30, 2009, SFMTA encourages Contractor to promote policies and initiatives for employees and other personnel that adopt and promote safety policies to decrease crashes by distracted drivers, including policies to ban text messaging while driving, and to include this provision in each third party subcontract involving the project.

**XXIV. SEAT BELT USE**

In compliance with Executive Order 13043 "Increasing Seat Belt Use in the United States", April 16, 1997 23 U.S.C. Section 402 note, the SFMTA encourages Contractor to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company owned, rented, or personally operated vehicles, and to include this provision in each third party subcontract involving the project.