THIS PRINT COVERS CALENDAR ITEM NO.: 14

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

DIVISION: Capital Programs and Construction Division

BRIEF DESCRIPTION:

Requesting authorization for the Executive Director/CEO to execute Contract No. CPT 626.02, LRV Collision Repairs, with AnsaldoBreda Inc., in an amount not to exceed \$32,854,622, including three options, and for a term not to exceed six years, with expenditures limited to \$13 million pending certification of additional funding.

SUMMARY:

- The proposed contract with AnsaldoBreda Inc. will rebuild seven light rail vehicles that have suffered extensive damage in collisions. AnsaldoBreda is the original equipment manufacturer (OEM) of the LRVs.
- The LRVs have structural frame assemblies that can only be aligned correctly by using the vehicles' original assembly fixtures; the OEM has sole access to these fixtures.
- On August 31, 2009, the Executive Director/CEO approved a sole source waiver to award the Contract to AnsaldoBreda, Inc.
- SFMTA staff has negotiated a contract with AnsaldoBreda to perform the rebuilding of these vehicles for an amount not to exceed \$32,854,622, to be completed within six years from Notice to Proceed.
- The contractor will also be replacing the propulsion system in two of the seven vehicles with the latest generation propulsion and control system. This will enable the SFMTA to test a new propulsion system that can replace the existing General Electric propulsion system, which is no longer in production.
- Funding for this project will be provided through Prop K sales tax funds, California State I-Bonds, SFMTA operating funds, and insurance proceeds. Currently, only \$15 million of the funds needed for the project (and \$13 million for this contract) have been secured.

ENCLOSURES:

- 1. SFMTA Board Resolution
- 2. Project Budget and Financial Plan
- 3. Contract with AnsaldoBreda
- 4. Approved Sole Source Waiver from the Executive Director/CEO of SFMTA

APPROVALS:	DATE
DIRECTOR OF DIVISION PREPARING ITEM	
FINANCE	
EXECUTIVE DIRECTOR/CEO	

SECRETARY	-					
ADOPTED RESOLUTION BE RETURNED TO	Elson Hao – 700 Pennsylvania, B200					
ASSIGNED SFMTAB CALENDAR DATE:						

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PURPOSE:

The purpose of this project is to rebuild seven heavily damaged LRVs owned and operated by the SFMTA. Rebuilding these vehicles will provide SFMTA additional LRVs to meet both present and future service demands, increase operating revenue, and comply with federal funding requirements. The contractor will also be replacing the propulsion system in two of the seven vehicles with the latest generation of propulsion and control system. This will enable the SFMTA to test a new propulsion system that can replace the existing General Electric propulsion system which is no longer in production.

GOAL:

The goal of this project is to improve equipment reliability in order to meet the following goal and objective of the SFMTA's Strategic Plan:

Goal 2: System Performance - To get customers where they want to go, and when they want to be there

Objective No. 2.1: Improve transit reliability to meet 85% on-time performance standard

DESCRIPTION:

Scope of Work:

The scope of work includes the following tasks on up to seven LRVs: restoration of damaged structural components to their original configuration; furnishing and installation of missing electrical, mechanical and body panel components and appurtenances; testing of the vehicles to verify that they are service-ready and able to meet SFMTA's operating parameters; and transportation to and from AnsaldoBreda's repair facility in Pittsburg, California. Two of the LRVs will be modified and fitted with a brand new AnsaldoBreda Spa propulsion and control system.

The Contractor shall supply all engineering, design calculations, detailed drawings, labor, tools, materials, parts, facilities, equipment, and other related technical documentation needed to rebuild the LRVs and modify two of them with the new ABS propulsion and control system. The scope of works also includes training, training materials and manuals.

Under the base contract, the Contractor will restore five LRVs at a cost of \$20,174,651: Nos. 1407, 1433, 1499, 1500, and 1541. The Contractor shall also supply a vehicle simulator that will be used by SFMTA to train operators on the operation of the LRVs. Under Option 3, two other LRVs (Nos. 1429 and 1435) will be repaired at a cost of \$10,679,971 if funding is available.

In order to return two complete LRVs to the SFMTA in relatively short order, the "A" ends of two vehicles will be removed and connected with the "B" ends of two other vehicles: Sections 1435A and 1433B, each of which has no structural damage, will be joined and identified as Car No. 1433. Similarly, Sections 1429A and 1407B, which also have no structural damage, will be joined and identified as Car No. 1407.

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Because only \$13 million is initially available for certification (see discussion below under Funding Impact), SFMTA plans to have the Contractor first repair four of the five LRVs in the base contract: Nos. 1407, 1433, 1499 and 1500 for a total amount of \$12,783, 512 million.

Option 1 is an allowance of \$1,000,000 for extra materials and/or a vehicle simulator enhancement, which must be exercised within 12 months of NTP. Option 2 is an allowance of \$1,000,000 for repairs to future collision-damaged vehicles. The cost of Options 1 and 2 will be negotiated through a task order process.

The cost for Option 3 is included in the contract (\$5,579,783 for Car No. 1429; \$5,100,187 for Car No. 1435). Option 3 will be exercised by a separate notice to proceed if and when funding becomes available.

On August 31, 2009, the Executive Director/CEO approved a sole source waiver to award the Contract to AnsaldoBreda, Inc. (see attached sole source waiver), and on October 5, 2009, the Human Rights Commission granted a waiver of San Francisco's Administrative Code 14B. These approvals allowed SFMTA staff to negotiate with the contractor the cost of the project. Based on the negotiations, AnsladoBreda will perform the work specified in the technical specifications at a total cost of \$\$32,854,622.

The contract requires AnsaldoBreda, Inc. to complete the project in 1985 calendar days after Notice to Proceed; liquidated damages of \$500 per day of delay will be assessed for failure to complete the work on time.

ALTERNATIVES CONSIDERED:

Two alternatives were considered:

First, the SFMTA considered having the work performed by in house technicians; however, SFMTA does not have the facility space, the necessary equipment or the required supply of parts and materials to perform vehicle rebuilds at a production level without affecting scheduled preventive maintenance and repair work needed for the rest of the fleet.

The second alternative was to put the project out to bid. However, even though other vehicle manufacturers may have the facility, staff, and certain equipment to do the work, as discussed above, they would not be able to perform all required work because they do not have access to the original equipment fixtures necessary to realign the structural frames of the vehicles. In addition, many of the replacement electrical, mechanical and body components are only available from the OEM.

FUNDING IMPACT:

Funding for this project is expected from the following sources: \$12.6 million from California State I-Bonds, \$2.0 million from Prop K funds; \$13.4 million from SFMTA Operating Funds; \$1.99 million from insurance proceeds; and \$5.1 million dollars from sources yet to be determined. At this time, only \$15 million of the total funding needed for the project is available, with \$13 million allocated for the contract. As further funding is certified by the

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Controller and the CFO, staff will issue subsequent notice(s) to proceed to the Contractor.

OTHER APPROVAL RECEIVED OR STILL REQUIRED:

The contract will require approval from the Civil Service Commission.

The City Attorney's Office has reviewed this calendar item. Since the contract amount is over \$10 million, Board of Supervisors' approval is required under Charter Section 9.118. The City Attorney will approve the contract as to form after the Board of Supervisors has approved the contract.

RECOMMENDATIONS:

Staff recommends that the SFMTA Board authorize the Executive Director/CEO to execute Contract No. CPT 626.02, LRV Collision Repairs, with AnsaldoBreda Inc., in the amount not to exceed \$32,854,622, including three options, and for a term not to exceed six years.

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY **BOARD OF DIRECTORS**

RESOLUTION No.

	RESOLUTION NO.
Inde	r Contract No. CPT 626.02, Repair of Damaged LRVs, A
hea	vily damaged light rail vehicles (LRVs), which will incre

WHEREAS, U nsaldoBreda Inc. will rebuild seven ase the quantity of LRVs available for SFMTA to meet both present and future service demands, increase operating revenues, and help the SFMTA to comply with federal funding requirements; and.

WHEREAS, The scope of work under Contract No. CPT 626.02 will include all labor, inspections, engineering, tools, materials, parts, facilities, equipment required to complete all work, including all required detailed drawings, design calculations and other specified technical documentation in connection with the rebuilding of these systems and the installation of a new propulsion and control system on two LRVs; and,

WHEREAS, On August 31, 2009, the Executive Director/CEO approved a sole source waiver to award the Contract to AnsaldoBreda; and.

WHEREAS, SFMTA staff negotiated a contract with AnsaldoBreda to perform the work specified in the Technical Specifications, including all options, for a total cost of \$32,854,622; and,

WHEREAS, Funding for the project will come from Proposition K sales tax funds, California State I-Bonds, SFMTA Operating Funds and insurance proceeds; however, currently, only \$13 million in funding is available for certification; now, therefore be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors authorizes the Executive Director/CEO to execute Contract No. CPT 626.02, Repair of Damaged LRVs, with AnsaldoBreda Inc., in an amount not to exceed \$32,854,622, and for a term not to exceed six years, with expenditures limited to \$13 million pending certification of additional funding; and be it further

RESOLVED, That the SFMTA Board of Directors recommends that the Board of Supervisors approve this contract.

I certify that the foregoing resolution wa	as adopted by the Municipal Transportation Agency
Board of Directors at its meeting of	·
_	
	Secretary to the Board of Directors
	San Francisco Municipal Transportation Agency

Enclosure 2

LRV Restoration Project

Project Budget and Financial Plan

BUDGET

Category	Budget
Conceptual Engineering	\$100,000
Construction	
Contract	\$32,854,622
Project Management	\$575,000
Project Engineering	\$600,000
Maintenance Support	\$725,000
Consultant Support	\$350,000
Total	\$35,104,622

FINANCIAL PLAN

Category	Budget
Conceptual Engineering	\$100,000
Construction	
Contract	\$32,854,622
Project Management	\$575,000
Project Engineering	\$600,000
Maintenance Support	\$725,000
Consultant Support	\$350,000
Total	\$35,104,622

Contract Between the

City and County of San Francisco

and

AnsaldoBreda Inc.

for

Repair of Damaged LRVs

Contract No. SFMTA
CPT 626.02

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City and County of San Francisco Municipal Transportation Agency One South Van Ness 7th Floor San Francisco, California 94107

Agreement between the City and County of San Francisco and

AnsaldoBreda Inc.

This Agreement is made this	day of	, 2010, in the City and County of San						
Francisco, State of California, b	y and between:	AnsaldoBreda Inc., a Delaware corporation						
("Contractor"), and the City and County of San Francisco, a municipal corporation ("City"),								
acting by and through its Municipal Transportation Agency ("SFMTA").								

Recitals

- **A.** SFMTA wishes to obtain the services of a qualified firm to repair five damaged light rail vehicles ("LRVs"), with an option to repair two other damaged LRVs.
- **B.** Contractor represents and warrants that it is qualified to perform the services required by City as set forth under this Contract.
- C. Approval for said Agreement was obtained from a Civil Service Commission Notice of Action 4133-09/10 for Contract Number CPT 626.02 on May 17, 2010.

Now, THEREFORE, the parties agree as follows:

Definitions

Where any word or phrase defined below, or a pronoun used in place thereof, is used in any part of the contract documents, it shall have the meaning set forth herein.

<u>Acceptance</u>: The formal written acceptance by an authorized representative of the City and County of San Francisco that all work, or a specific portion thereof, under the contract has been satisfactorily completed.

<u>Award</u>: Notification from the City to Contractor of acceptance of Contractor's proposal, subject to the execution and approval of a satisfactory Contract therefore and bond to secure the performance thereof, and to such other conditions as may be specified or otherwise required by law.

<u>Certification</u>: Certification by the Controller that funds necessary to make payments as required under the contract are available in accordance with the City's Charter.

City: City and County of San Francisco, a municipal corporation.

<u>Conditional Acceptance</u>; <u>Conditionally Accepted</u>: The condition of a repaired Vehicle that, in the SFMTA's determination, does not meet the requirements for full acceptance, but is authorized by the SFMTA to enter into revenue service, pending completion of all repairs.

<u>Conformed Contract Documents</u>: The contract documents revised to incorporate information included in the Contractor's Proposal and accepted by the City.

<u>Contract; Agreement:</u> The written Contract executed by the City and Contractor, covering the performance of the work and furnishing of labor, materials, equipment, tools, and services, including work incidental to the procurement, to include the IFB, Technical Specifications, all Conformed Contract Documents, Contractor's Bid, the Contract bonds or other security, and all supplemental agreements or modifications to the Contract.

<u>Contract Modification; Amendment</u>: A written order, issued by the City to Contractor, covering changes in the Contract documents within the general scope of the Contract and establishing the basis of payment and time adjustments for the work affected by the changes.

Contractor; AnsaldoBreda: AnsaldoBreda Inc.

Controller: Controller of the City.

<u>Corrective Action Plan</u>: The plan submitted by Contractor to correct Defects that have been determined by the SFMTA to be Fleet Defects, as defined in Section 65.7(a).

<u>Days</u>: Unless otherwise designated, the word "days" refers to working days of the City.

<u>Defect(s)</u>: Any condition or characteristic in any Material and/or Equipment or services

furnished by the Contractor under this Contract that is not in compliance with the requirements of the Contract.

<u>Director of Capital Programs and Construction</u>: The Division Director in charge of the Capital Programs and Construction Division of the SFMTA.

Engineer: The SFMTA Engineer assigned to the Contract or his or her designated agent.

LRV or Vehicle: A light rail vehicle subject to repair under this Contract.

<u>Material and/or Equipment</u>: The end items, including data, furnished by the Contractor and related services required under the Contract.

<u>Muni:</u> The San Francisco Municipal Railway, the public transit system of the City under the supervision and control of the San Francisco Municipal Transportation Agency.

<u>Notice To Proceed</u>: A written notice to the Contractor of the date on which it shall begin prosecution of the work to be done under the contract.

<u>Senior Program Manager</u>: The SFMTA staff person assigned to manage the Contract for the SFMTA, or designated agent.

<u>SFMTA</u>: The San Francisco Municipal Transportation Agency, an agency of the City with responsibility for the Municipal Railway Department and the Department of Parking and Traffic.

<u>Subcontractor</u>: Any individual, partnership, firm, or corporation, which undertakes integrally on the Project the partial or total design, manufacture, or performance of one or more items of work under the terms of the contract. As used herein, the terms subcontractor and supplier are synonymous.

<u>Technical Specifications</u>: The specifications, provisions, and requirements that detail the work and the materials, products (including the methods of manufacture, construction, assembly, and testing), and other requirements relative thereto, as set forth in Volume 2 of the Contract.

<u>Work</u>: The furnishing of all labor, supervision, services, products, materials, machinery, equipment, tools, supplies, and facilities and the performance of all requirements called for by the Contract and necessary to the completion thereof.

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, 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.

2. Term of the Agreement

Subject to Section 1, the term of this Agreement shall begin on the Effective Date and end six years thereafter.

3. Effective Date of Agreement

This Agreement shall become effective when the Controller has certified to the availability of funds and Contractor has been notified in writing.

4. Services Contractor Agrees to Perform

The Contractor agrees to perform the services provided for in Volume 2 (Technical Specifications), according to the Delivery Schedule set forth in Exhibit A, incorporated by reference as though fully set forth.

5. Compensation

- 5.1. In no event shall the amount of this Agreement exceed Thirty-Two Million, Eight Hundred Fifty-Four Thousand, Six Hundred Twenty-Two Dollars (\$32,854,622). The breakdown of costs associated with this Agreement appears in the Price Schedule (Exhibit B), incorporated by reference as though fully set forth.
- 5.2. No charges shall be incurred under this Agreement nor shall any payments become due to Contractor until reports, services, or both, required under this Agreement are received from Contractor and approved by SFMTA as being in accordance with this Agreement. City may withhold payment to Contractor in any instance in which Contractor has failed or refused to satisfy any material obligation provided for under this Agreement.
- 5.3. In no event shall City be liable for interest or late charges for any late payments. City will not make price adjustments to this Contract to protect Contractor from economic inflation.

6. Guaranteed Maximum Costs

- 6.1. The City's obligation hereunder shall not at any time exceed the amount certified by the Controller for the purpose and period stated in such certification. This contract will be initially certified for \$13,000,000. Contractor shall not incur funds in excess of such amount without written authorization from the SFMTA, signed by the SFMTA CFO.
- 6.2. Except as may be provided by laws governing emergency procedures, officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, Commodities or Services beyond the agreed upon contract scope unless the changed scope is authorized by amendment and approved as required by law.
- 6.3. Officers and employees of the City are not authorized to offer or promise, nor is the City required to honor, any offered or promised additional funding in excess of the maximum amount of funding for which the contract is certified without certification of the additional amount by the Controller.
- 6.4. The Controller is not authorized to make payments on any contract for which funds have not been certified as available in the budget or by supplemental appropriation.

7. Payment; Invoice Format; Title

7.1. **Invoices**. Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller, and must include the Contract Progress Payment Authorization number. No more than one invoice per month shall be submitted. Invoices shall be accompanied by appropriate supporting documentation. All amounts paid by City to Contractor shall be subject to audit by City.

- 7.2. **Progress Payments**. Progress payments shall be made as set forth in the Payment Schedule (Exhibit C), incorporated by reference as though fully set forth. Progress payments shall be conditioned on transfer of title to the City for the portion of the components, equipment or material paid for by the progress payment (as provided in Section 7.3 below), plus a certificate of insurance required by Section 15.1.8 of this Agreement. As a condition of payment for Items 3 and 4 of the Payment Schedule, Contractor shall provide a letter of credit in conformance with the provisions of Section 16.5, in the amount of the progress payments. Progress payments shall be made by the City to Contractor at the address specified in the section entitled "Notices to the Parties." The SFMTA will authorize partial release of letter(s) of credit upon transfer of full title to parts or assemblies for which a progress payment was made (*i.e.*, Item 4).
- 7.3. **Options**. Payment for Options 1 and 2 will be negotiated under the provisions of Section 69. Payments for Option 3 shall be made as provided in Exhibit C.
- 7.4. **Title**. Upon the earlier of payment or acceptance of any part, component, or assembly, Contractor warrants that title to said part, component or assembly shall pass to the City free and clear of all liens, mortgages and encumbrances, financing statements, security agreements, claims and demands of any character.

8. Submitting False Claims; Monetary Penalties

Pursuant to San Francisco Administrative Code §21.35, any contractor, subcontractor or consultant who submits a false claim shall be liable to the City for three times the amount of damages which the City sustains because of the false claim. A contractor, subcontractor or consultant who submits a false claim shall also be liable to the City for the costs, including attorneys' fees, of a civil action brought to recover any of those penalties or damages, and may be liable to the City for a civil penalty of up to \$10,000 for each false claim. A contractor, subcontractor or consultant will be deemed to have submitted a false claim to the City if the contractor, subcontractor or consultant: (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.

9. Disallowance

If Contractor claims or receives payment from City for a service, 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.

By executing this Agreement, Contractor certifies that Contractor is not suspended, debarred or otherwise excluded from participation in federal assistance programs. Contractor acknowledges that this certification of eligibility to receive federal funds is a material terms of the Agreement.

10. Taxes

- 10.1. Payment of any taxes, including possessory interest taxes and California sales and use taxes, levied upon or as a result of this Agreement, or the services delivered pursuant hereto, shall be the obligation of Contractor.
- 10.2. Contractor recognizes and understands 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:
 - (a) 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;
 - **(b)** 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.
 - (c) 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.
 - (d) 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.

11. Payment Does Not Imply Acceptance of Work

The granting of any payment by City, or the receipt thereof by Contractor, shall in no way lessen the liability of Contractor to replace unsatisfactory work, equipment, or materials, although the unsatisfactory character of such work, equipment or materials may not have been apparent or detected at the time such payment was made. Materials, equipment, components, or workmanship that does not conform to the requirements of this Agreement may be rejected by City and in such case must be replaced by Contractor without delay.

12. Qualified Personnel

Work under this Agreement shall be performed only by competent personnel under the supervision of and in the employment of Contractor. Contractor will comply with City's reasonable requests regarding assignment of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to complete the project within the project schedule specified in this Agreement.

13. 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 used by Contractor, or by any of its employees, even though such equipment be furnished, rented or loaned to Contractor by City.

14. Independent Contractor; Payment of Taxes and Other Expenses

14.1. **Independent Contractor.** 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 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.

14.2. **Payment of 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, should any court, arbitrator, or administrative authority determine that Contractor is an employee for any other purpose, then Contractor agrees to a reduction in City's financial liability so that City's total expenses under this Agreement are not greater than they would have been had the court, arbitrator, or administrative authority determined that Contractor was not an employee.

15. Insurance; Bonds; Letters of Credit

15.1. Insurance

- (a) Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, and except as otherwise approved by the City's Risk Manager, Contractor shall maintain in force, during the full term of the Agreement, insurance in the following amounts and coverage's:
- (i) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, illness or injury; and

- (ii) Commercial General Liability Insurance with limits not less than \$1,000,000 each occurrence Combined Single Limit for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and
- (iii) Commercial Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence Combined Single Limit for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.
- (iv) Garage keepers' legal liability insurance, comprehensive form, with limits not less than \$1,000,000 each occurrence, including coverage for vehicles parked on the site as well as vehicles on the site for repair.
- (v) The shipping contractor shall carry, at a minimum, physical damage insurance (including destruction, damage, fire and theft) in the amount of not less than \$1,000,000 and commercial liability insurance in the amount of not less than \$1,000,000.
 - **(b)** Commercial General Liability, Business Automobile Liability Insurance, Garagekeepers' Legal Liability and Shippers Coverage policies must provide the following:
- (i) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.
- (ii) That such policies are primary insurance to any other insurance available to the Additional Insured, 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.
 - (c) Regarding Workers' Compensation, Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.
 - (d) All policies (and bonds, as described in Section 15.2 below) shall provide 30 days' advance written notice to City of cancellation or reduction in coverage for any reason, mailed to the following address:

San Francisco Municipal Transportation Agency 1 South Van Ness Avenue, San Francisco, CA 94103 Attention: Elson Hao Contract No. CPT 626.02

- (e) Should any of the required insurance 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 three 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.
- (f) 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.
- (g) 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.

- (h) Before commencing any operations under this Agreement, Contractor shall do the following: (a) 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 coverage's set forth above, and (b) furnish complete copies of policies promptly upon City request.
- (i) Approval of the insurance by City shall not relieve or decrease the liability of Contractor hereunder.
- (j) If a subcontractor will be used to complete any portion of this agreement, the Contractor shall ensure that the subcontractor shall provide all necessary insurance and shall name the City and County of San Francisco, its officers, agents and employees and the Contractor listed as additional insureds.

16. Bonds

- 16.1. Within 20 days following the receipt of a notice of recommended award of contract and until completion of all Contract obligations and acceptance by City of the final damaged LRV, the Contractor shall furnish to City a performance bond and a labor and materials bond, each in the amount not less than \$5,000,000, to guarantee Contractor's faithful performance of all obligations of the Contract and to guarantee Contractor's payment to all suppliers of labor and materials under this Contract, excluding the period covered by the warranty bond described in Subsection (b) below. Contractor may request a reduction in the amount of the bonds after the SFMTA has accepted at least three of the LRVs in the base contract, which request may be granted by the SFMTA in its sole discretion, after consultation with the City's Risk Manager.
- 16.2. Within 20 days of receipt of a notice from the SFMTA of its intention to exercise Option 3 (as defined in Section 69) as to one or both LRVs, the Contractor shall furnish to City a performance bond and a labor and materials bond in the amount of 25 percent of the cost of the portion of the Option exercised, to guarantee performance of all contract obligations with respect to such Option. In the alternative, the City may agree to allow Contractor to satisfy this requirement using the bonds provided under Section 16.1 provided that the surety acknowledges in writing that the coverage of such bonds extends to the Option 3 Cars.
- 16.3. From acceptance by City of the Vehicles, and throughout the warranty period (including paint/corrosion) of the Vehicles, Contractor shall supply a maintenance or warranty bond or irrevocable letter of credit in the amount of \$250,000 to guarantee Contractor's warranty of performance of the Vehicles.
- 16.4. Bonding entities on the performance bond must be legally authorized to engage in the business of furnishing performance bonds in the State of California. All bonding entities or letter of credit must be satisfactory to SFMTA and to the Controller and Risk Manager of the City and County of San Francisco.
- 16.5. During the period covered by the Agreement, if any of the sureties upon the bond shall become insolvent or, in the opinion of SFMTA, unable to pay promptly the amount of such bond to the extent to which the surety might be liable, Contractor, within thirty (30) days after notice given by SFMTA to Contractor, shall by supplemental bond or otherwise, substitute another and sufficient surety approved by SFMTA in place of the surety becoming insolvent or unable to pay. If Contractor fails within such thirty (30) day period to substitute another and

sufficient surety, Contractor, if SFMTA so elects, shall be deemed to be in default in the performance of its obligations hereunder and upon the said bond. The City, in addition to any and all other remedies, may terminate the Agreement or bring any proper suit or proceeding against moneys then due or which thereafter may become due Contractor under the Agreement. The amount for which the surety shall have justified on the bond and the moneys so deducted shall be held by City as collateral for the performance of the conditions of the bond.

16.6. Letters of Credit.

- (a) Requirements. Any letter of credit submitted in lieu of a bond or other required security under this Agreement shall be a confirmed, clean, irrevocable letter of credit in favor of the City and County of San Francisco, a municipal corporation. It must have an original term of one year, with automatic renewals of the full amount throughout the term of the Agreement and throughout the performance of Contractor's obligations the under the Agreement. If Contractor fails to deliver the letter of credit as required, City will be entitled to cancel this Agreement. The letter of credit must provide that payment of its entire face amount, or any portion thereof, will be made to City upon presentation of a written demand to the bank signed by the Executive Director/CEO on behalf of the City and County of San Francisco.
- **(b) Financial Institution.** The letter of credit must be issued on a form and issued by a financial institution acceptable to the City in its sole discretion, which financial institution must (a) be a bank or trust company doing business and having an office in the City and County of San Francisco, (b) have a combined capital and surplus of at least \$25,000,000.00, and (c) be subject to supervision or examination by federal or state authority and with at least a Moody's A rating.
- (c) **Demand on Letter of Credit**. The letter of credit will constitute a security deposit guaranteeing faithful performance by Contractor of all terms, covenants, and conditions of this Agreement, including all monetary obligations set forth herein. If Contractor defaults with respect to any provision of this Agreement, SFMTA may make a demand under the letter of credit for all or any portion thereof to compensate City for any loss or damage that they may have incurred by reason of Contractor's default, negligence, breach or dishonesty. Such loss or damage may include without limitation any damage to or restoration of City property or property that is required to be constructed, maintained or repaired pursuant to this Agreement, payments to City, and claims for liquidated damages; provided, however, that City will present its written demand to said bank for payment under said letter of credit only after City first has made its demand for payment directly to Contractor, and five full Days have elapsed without Contractor having made payment to City. Should the City terminate this Agreement due to a breach by Contractor, the City shall have the right to draw from the letter of credit those amounts necessary to pay any fees or other financial obligations under the Agreement and perform the services described in this Agreement until such time as the City procures another contractor and the agreement between the City and that contractor becomes effective. City need not terminate this Agreement in order to receive compensation for its damages. If any portion of the letter of credit is so used or applied by City, Contractor, within 10 business days after written demand by City, shall reinstate the letter of credit to its original amount; Contractor's failure to do so will be a material breach of this Agreement.
- (d) Expiration or Termination. The letter of credit must provide for 60 Days notice to City in the event of non-extension of the letter of credit; in that event, Contractor shall replace the letter of credit at least 10 business Days prior to its expiration. In the event the City receives notice from the issuer of the letter of credit that the letter of credit will be terminated, not renewed or will otherwise be allowed to expire for any reason during the period from the commencement of the term of this Agreement to 90 Days after the expiration or termination of this Agreement, or the conclusion of all of Contractor's

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obligations under the Agreement, whichever occurs last, and Contractor fails to provide the City with a replacement letter of credit (in a form and issued by a financial institution acceptable to the City) within 10 Days following the City's receipt of such notice, such occurrence shall be an event of default, and, in addition to any other remedies the City may have due to such default (including the right to terminate this Agreement), the City shall be entitled to draw down the entire amount of the letter of credit (or any portion thereof) and hold such funds in an account with the City Treasurer in the form of cash guarantying Contractor's obligations under this Agreement. In such event, the cash shall accrue interest to the Contractor at a rate equal to the average yield of Treasury Notes with one-year maturity, as determined by the Treasurer. In the event the letter of credit is converted into cash pursuant to this paragraph, upon termination of this Agreement, Contractor shall be entitled to a full refund of the cash (less any demands made thereon by the City) within 90 Days of the termination date, including interest accrued through the termination date.

- (e) Return of Letter of Credit. The letter of credit will be returned within 90 Days after the end of the term of this Agreement, as defined in Section 15.1, provided that Contractor has faithfully performed throughout the life of the Agreement, Contractor has completed its obligations under the Agreement, there are no pending claims involving Contractor's performance under the Agreement and no outstanding disagreement about any material aspect of the provisions of this Agreement. In the event this Agreement is assigned, as provided for in Section 18.8, City will return or release the letter of credit not later than the effective date of the assignment, provided that the assignee has delivered to the City an equivalent letter of credit, as determined by City.
- (f) Excessive Demand. If City receives any payments from the aforementioned bank under the letter of credit by reason of having made a wrongful or excessive demand for payment, City will return to Contractor the amount by which City's total receipts from Contractor and from the bank under the letter of credit exceeds the amount to which City is rightfully entitled, together with interest thereon at the legal rate of interest, but City will not otherwise be liable to Contractor for any damages or penalties.

17. Indemnification

- 17.1. **General Indemnity.** To the fullest extent permitted by law, Contractor shall assume the defense of (with legal counsel subject to approval of the City), indemnify and save harmless the City, its boards, commissions, officers, and employees (collectively "Indemnitees"), from and against any and all claims, loss, cost, damage, injury (including, without limitation, injury to or death of an employee of the Contractor or its subcontractors), expense and liability of every kind, nature, and description (including, without limitation, incidental and consequential damages, court costs, attorneys' fees, litigation expenses, fees of expert consultants or witnesses in litigation, and costs of investigation), that arise our of, pertain to, or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of the Contractor, any subconsultant, anyone directly or indirectly employed by them, or anyone that they control (collectively, "Liabilities").
- 17.2. **Limitations.** No insurance policy covering the Contractor's performance under this Agreement shall operate to limit the Contractor's Liabilities under this provision. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities. The Contractor assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee or the contractors of any Indemnitee.
- 17.3. **Intellectual Property Infringement.** Contractor shall also indemnify, defend and hold harmless all Indemnitees from all suits or claims for infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use by the City, or any of its boards, commissions, officers, or employees of articles or services to be supplied in the performance of Contractor's

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services under this Agreement. Infringement of patent rights, copyrights, or other proprietary rights in the performance of this Agreement, if not the basis for indemnification under the law, shall nevertheless be considered a material breach of contract.

18. Incidental and Consequential Damages

Contractor shall be responsible for incidental and consequential damages resulting in whole or in part from Contractor's acts or omissions. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

19. Liability of City

CITY'S PAYMENT OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE PAYMENT OF THE COMPENSATION PROVIDED FOR IN SECTION 5 OF THIS AGREEMENT. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL CITY BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS AGREEMENT.

20. Liquidated Damages

By entering into this Agreement, Contractor agrees that in the event the Services, as provided under Section 4 herein, are delayed beyond the scheduled milestones and timelines as provided in the Delivery Schedule (Exhibit A), City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the amounts listed below for each day of delay beyond scheduled milestones and timelines are not a penalty, but is a reasonable estimate of the loss that City will incur based on the delay, 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 deliver to City within the time fixed or such extensions of time permitted in writing by SFMTA. In no event shall Contractor be liable for liquidated damage in excess of \$1,000,000.

Failure to deliver the LRVs by the times stated in the Contract.

Failure to submit timely Corrective Action Plan (or required revisions)

Failure to submit timely Work Program (or required revisions)

Failure to timely complete Corrective Action Plan \$500 per day (per Fleet Defect)

21. Default; Remedies

- 21.1. **Event of Default**. Each of the following shall constitute an 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: 8, 10, 15, 24, 30, 37, 53, 55, 57, 58, 61, 62, 63, 64, 65, or 66, and such default continues for a period of ten days after written notice thereof from City to Contractor
 - (b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, and such default continues for a period of ten days after written notice thereof from City 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.
- 21.2. **Remedies**. 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, 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 all damages, losses, costs or expenses incurred by City as a result of such Event of Default and any liquidated damages due from Contractor pursuant to the terms of this Agreement or any other agreement. 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.

22. Termination for Convenience

- 22.1. **Exercise of Option**. 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.
- 22.2. **Contractor Actions**. Upon receipt of the notice, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect 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:

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- (a) Halting the performance of all services and other work under this Agreement on the date(s) and in the manner specified by City.
- **(b)** Not placing any further orders or subcontracts for materials, services, equipment or other items.
 - (c) Terminating all existing orders and subcontracts.
- (d) At City's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, City 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.
- (e) Subject to City's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.
- **(f)** Completing performance of any services or work that City designates to be completed prior to the date of termination specified by City.
- **(g)** Taking such action as may be necessary, or as the City may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which City has or may acquire an interest.
- 22.3. **Contractor Invoice**. Within 30 days after the specified termination date, Contractor shall submit to City 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 and other work City directed Contractor to perform prior to the specified termination date, for which services or work City 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 or other work. 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 and other work described in the immediately preceding subsection (a), provided that Contractor can establish, to the satisfaction of City, that Contractor would have made a profit had all services and other work 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 City or otherwise disposed of as directed by the City.
 - (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 City, and any other appropriate credits to City against the cost of the services or other work.
- 22.4. **Non-Recoverable Costs**. In no event shall City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by City, except for those costs specifically enumerated and described in the immediately preceding subsection 21.3. Such non-recoverable costs include, but are not limited to, anticipated profits on 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 such subsection 21.3.

- 22.5. **Deductions**. In arriving at the amount due to Contractor under this Section, City may deduct: (a) all payments previously made by City for work or other services covered by Contractor's final invoice; (b) any claim which City may have against Contractor in connection with this Agreement; (c) any invoiced costs or expenses excluded pursuant to the immediately preceding subsection (21.4); and (d) in instances in which, in the opinion of the City, the cost of any service or other work performed under this Agreement is excessively high due to costs incurred to remedy or replace defective or rejected services or other work, the difference between the invoiced amount and City's estimate of the reasonable cost of performing the invoiced services or other work in compliance with the requirements of this Agreement.
- 22.6. **Survival**. City's payment obligation under this Section shall survive termination of this Agreement.

23. Rights and Duties Upon Termination or Expiration

This Section and the following Sections of this Agreement shall survive termination or expiration of this Agreement:

8.	Submitting false claims	27.	Works for Hire
9.	Disallowance	28.	Audit and Inspection of Records
10.	Taxes	48.	Modification of Agreement.
11.	Payment does not imply acceptance of work	49.	Administrative Remedy for Agreement Interpretation.
13.	Responsibility for equipment	50.	Agreement Made in California; Venue
14.	Independent Contractor; Payment of Taxes and Other Expenses	51.	Construction
15.	Insurance	52.	Entire Agreement
16.	Indemnification	55.	Disputes
17.	Incidental and Consequential	56.	Severability
10	Damages	57.	Protection of Private Information
18.	Liability of City	65.	Warranty Provisions
24.	Proprietary or confidential information of City	66.	Repair Provisions

23.1. Contractor Duties. Subject to the immediately preceding subsection 22.1, upon termination of this Agreement prior to expiration of the term specified in Section 2, this Agreement shall terminate and 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 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

24. Conflict of Interest

Ownership of Results

26.

furnished to City. This subsection shall survive termination of this Agreement.

Through its execution of this Agreement, Contractor acknowledges that it is familiar with the provisions of section 15.103 of the City's Charter, Article III, Chapter 2 of the City's Campaign and Governmental Conduct Code and sections 87100 et seq. and sections 1090 et seq. of the Government Code of the State of California, and certifies that it does not know of any facts which constitute a violation of said provision and agrees that if it becomes aware of any such fact during the term of this Agreement it shall immediately notify the City.

25. Proprietary or Confidential Information of City

Contractor understands and agrees that, in the performance of the work or services under this Agreement or in contemplation thereof, Contractor may have access to private or confidential information, which may be owned or controlled by City, and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to City. Contractor agrees that all information disclosed by City to Contractor shall be held in confidence and used only in performance of the Agreement. Contractor shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary data.

26. Notices to the Parties

Unless otherwise indicated elsewhere in this Agreement, all written communications sent by the parties may be by U.S. mail, e-mail or by fax, and shall be addressed as follows:

To City:

Municipal Transportation Agency

700 Pennsylvania Ave.

San Francisco, California 94107

Attn: Elson Hao

Phone: (415) 401-3196 Fax: (415) 401-3218 elson.hao@sfmta.com

To Contractor:

AnsaldoBreda, Inc. 1461 Loveridge Road

Pittsburg, CA 94565 Attn: Lorenzo Reffreger

Phone: (415) 397-7008 Fax: (415) 568-2720 Mobile: (415) 420-4125

lreffreger@ansaldobredinc.com

Any notice of default must be sent by registered mail.

27. Ownership of Results

Any interest of Contractor or its Subcontractors, in drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by Contractor or its subcontractors in connection with services to be

performed under this Agreement, shall become the property of and will be transmitted to City. However, Contractor may retain and use copies for reference and as documentation of its experience and capabilities.

28. Works for Hire

If, in connection with services performed under this Agreement, Contractor or its subcontractors create artwork, copy, posters, billboards, photographs, videotapes, audiotapes, systems designs, software, reports, diagrams, surveys, blueprints, source codes or any other original works of authorship, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works are the property of the City. If it is ever determined that any works created by Contractor or its subcontractors under this Agreement are not works for hire under U.S. law, Contractor hereby assigns all copyrights to such works to the City, and agrees to provide any material and execute any documents necessary to effectuate such assignment. With the approval of the City, Contractor may retain and use copies of such works for reference and as documentation of its experience and capabilities.

29. Audits 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 work under this Agreement. 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 less 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 conferred upon City by this Section.

30. Subcontracting

Contractor is prohibited from subcontracting this Agreement or any part of it unless such subcontracting is first approved by City in writing. Neither party shall, on the basis of this Agreement, contract on behalf of or in the name of the other party. An agreement made in violation of this provision shall confer no rights on any party and shall be null and void.

31. 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 the Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement.

32. Non-Waiver of Rights

The omission by either party at any time to enforce any default or right reserved 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.

33. Earned Income Credit (EIC) Forms

Administrative Code section 12O requires that employers provide their employees with IRS Form W-5 (The Earned Income Credit Advance Payment Certificate) and the IRS EIC Schedule, as set forth below. Employers can locate these forms at the IRS Office, on the Internet, or anywhere that Federal Tax Forms can be found.

- 33.1. **Provision of Forms to Employees**. Contractor shall provide EIC Forms to each Eligible Employee at each of the following times: (i) within thirty days following the date on which this Agreement becomes effective (unless Contractor has already provided such EIC Forms at least once during the calendar year in which such effective date falls); (ii) promptly after any Eligible Employee is hired by Contractor; and (iii) annually between January 1 and January 31 of each calendar year during the term of this Agreement.
- 33.2. **Failure to Comply**. Failure to comply with any requirement contained in subparagraph (a) of this Section shall constitute a material breach by Contractor of the terms of this Agreement. If, within thirty days after Contractor receives written notice of such a breach, Contractor fails to cure such breach or, if such breach cannot reasonably be cured within such period of thirty days, Contractor fails to commence efforts to cure within such period or thereafter fails to diligently pursue such cure to completion, the City may pursue any rights or remedies available under this Agreement or under applicable law.
- 33.3. **Flowdown to Subcontractors**. Any Subcontract entered into by Contractor shall require the subcontractor to comply, as to the subcontractor's Eligible Employees, with each of the terms of this section.
- 33.4. **Terms**. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Section 12O of the San Francisco Administrative Code.

34. Claims

Contractor shall not be entitled to the payment of any additional compensation for any action, or failure to act, by the Engineer, including failure or refusal to issue a Contract Modification or for the happening of any event, thing, occurrence, or other cause, unless Contractor shall have given the Engineer due written notice of potential claim.

The written notice of potential claim shall set forth the reasons for which Contractor believes additional compensation will or may be due, the nature of the costs involved, and insofar as possible, the amount of the potential claim. The said notice as above required must have been given to the Engineer prior to the time that Contractor shall have performed the work giving rise to the potential claim for additional compensation, or in all other cases, within 15 days after the happening of the event, thing, occurrence, or other cause giving rise to the potential claim.

It is the intention of this Section that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly be taken. Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing, or occurrence for which no written notice of potential claim as herein required was filed.

35. Nondiscrimination; Penalties

- 35.1. Contractor Shall Not Discriminate. In the performance of this Agreement, Contractor agrees not to discriminate against any employee, City and County employee working with such contractor or subcontractor, applicant for employment with such contractor or subcontractor, or against any person seeking accommodations, advantages, facilities, privileges, services, or membership in all business, social, or other establishments or organizations, on the basis of the fact or perception of a person's race, color, creed, religion, national origin, ancestry, age, height, weight, sex, sexual orientation, gender identity, domestic partner status, marital status, disability or Acquired Immune Deficiency Syndrome or HIV status (AIDS/HIV status), or association with members of such protected classes, or in retaliation for opposition to discrimination against such classes.
- 35.2. **Subcontracts**. Contractor shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code (copies of which are available from SFMTA) and shall require all subcontractors to comply with such provisions. Contractor's failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.
- 35.3. **Nondiscrimination in Benefits**. 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 bereavement leave, family medical leave, health benefits, membership or membership discounts, moving expenses, pension and retirement benefits or travel benefits, as well as any benefits other than the benefits specified above, between employees with domestic partners and employees with spouses, and/or between the domestic partners and spouses of such employees, where the domestic partnership has been registered with a governmental entity pursuant to state or local law authorizing such registration, subject to the conditions set forth in §12B.2(b) of the San Francisco Administrative Code.
- 35.4. **Condition to Contract**. As a condition to this Agreement, Contractor shall execute the "Chapter 12B Declaration: Nondiscrimination in Contracts and Benefits" form (form HRC-12B-101) with supporting documentation and secure the approval of the form by the San Francisco Human Rights Commission.
- 35.5. Incorporation of Administrative Code Provisions by Reference. The provisions of Chapters 12B and 12C of the San Francisco Administrative Code are incorporated in this Section by reference and made a part of this Agreement as though fully set forth herein. Contractor shall comply fully with and be bound by all of the provisions that apply to this Agreement under such Chapters, including but not limited to the remedies provided in such Chapters. Without limiting the foregoing, Contractor understands that pursuant to §12B.2(h) of the San Francisco Administrative Code, a penalty of \$50 for each person for each calendar day during which such person was discriminated against in violation of the provisions of this Agreement may be assessed against Contractor and/or deducted from any payments due Contractor.

36. MacBride Principles—Northern Ireland

Pursuant to San Francisco Administrative Code §12F.5, the City and County of San Francisco urges companies doing business in Northern Ireland to move towards resolving employment inequities, and encourages such companies to abide by the MacBride Principles. The City and County of San Francisco urges San Francisco companies to do business with

corporations that abide by the MacBride Principles. By signing below, the person executing this agreement on behalf of Contractor acknowledges and agrees that he or she has read and understood this section.

37. Tropical Hardwoods and Virgin Redwood Ban

Pursuant to §804(b) of the San Francisco Environment Code, the City and County of San Francisco urges contractors not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

38. Drug-Free Workplace Policy

Contractor acknowledges that pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on City premises. Contractor agrees that any violation of this prohibition by Contractor, its employees, agents or assigns will be deemed a material breach of this Agreement.

39. Resource Conservation

Chapter 5 of the San Francisco Environment Code ("Resource Conservation") is incorporated herein by reference. Failure by Contractor to comply with any of the applicable requirements of Chapter 5 will be deemed a material breach of contract.

40. Compliance with Americans with Disabilities Act

Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to the disabled public. Contractor shall provide the services specified in this Agreement in a manner that complies with the ADA and any and all other applicable federal, state and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents or assigns will constitute a material breach of this Agreement.

41. Sunshine Ordinance

In accordance with San Francisco Administrative Code §67.24(e), contracts, contractors' bids, responses to solicitations and all other records of communications between City and persons or firms seeking contracts, shall be open to inspection immediately after a contract has been awarded. Nothing in this provision requires the disclosure of a private person or organization's net worth or other proprietary financial data submitted for qualification for a contract or other benefit until and unless that person or organization is awarded the contract or benefit. Information provided which is covered by this paragraph will be made available to the public upon request.

42. Public Access to Meetings and Records

If the Contractor receives a cumulative total per year of at least \$250,000 in City funds or City-administered funds and is a non-profit organization as defined in Chapter 12L of the San Francisco Administrative Code, Contractor shall comply with and be bound by all the applicable provisions of that Chapter. By executing this Agreement, the Contractor agrees to open its meetings and records to the public in the manner set forth in §§12L.4 and 12L.5 of the Administrative Code. Contractor further agrees to make-good faith efforts to promote

community membership on its Board of Directors in the manner set forth in §12L.6 of the Administrative Code. The Contractor acknowledges that its material failure to comply with any of the provisions of this paragraph shall constitute a material breach of this Agreement. The Contractor further acknowledges that such material breach of the Agreement shall be grounds for the City to terminate and/or not renew the Agreement, partially or in its entirety.

43. Notification of Limitations on Contributions

Through execution of this Agreement, Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with 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, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or a board on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. Contractor acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. Contractor further acknowledges that 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 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Additionally, Contractor acknowledges that Contractor must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126.

44. Requiring Minimum Compensation for Covered Employees

- 44.1. Contractor agrees to comply fully with and be bound by all of the provisions of the Minimum Compensation Ordinance (MCO), as set forth in San Francisco Administrative Code Chapter 12P (Chapter 12P), including the remedies provided, and implementing guidelines and rules. The provisions of Chapter 12P are incorporated herein by reference and made a part of this Agreement as though fully set forth. The text of the MCO is available on the web at www.sfgov.org/olse/mco. A partial listing of some of Contractor's obligations under the MCO is set forth in this Section. Contractor is required to comply with all the provisions of the MCO, irrespective of the listing of obligations in this Section.
- 44.2. The MCO requires Contractor to pay Contractor's employees a minimum hourly gross compensation wage rate and to provide minimum compensated and uncompensated time off. The minimum wage rate may change from year to year and Contractor is obligated to keep informed of the then-current requirements. Any subcontract entered into by Contractor shall require the subcontractor to comply with the requirements of the MCO and shall contain contractual obligations substantially the same as those set forth in this Section. It is Contractor's obligation to ensure that any subcontractors of any tier under this Agreement comply with the requirements of the MCO. If any subcontractor under this Agreement fails to comply, City may pursue any of the remedies set forth in this Section against Contractor.

- 44.3. Contractor shall not take adverse action or otherwise discriminate against an employee or other person for the exercise or attempted exercise of rights under the MCO. Such actions, if taken within 90 days of the exercise or attempted exercise of such rights, will be reputably presumed to be retaliation prohibited by the MCO.
- 44.4. Contractor shall maintain employee and payroll records as required by the MCO. If Contractor fails to do so, it shall be presumed that the Contractor paid no more than the minimum wage required under State law.
- 44.5. The City is authorized to inspect Contractor's job sites and conduct interviews with employees and conduct audits of Contractor
- 44.6. Contractor's commitment to provide the Minimum Compensation is a material element of the City's consideration for this Agreement. The City in its sole discretion shall determine whether such a breach has occurred. The City and the public will suffer actual damage that will be impractical or extremely difficult to determine if the Contractor fails to comply with these requirements. Contractor agrees that the sums set forth in Section 12P.6.1 of the MCO as liquidated damages are not a penalty, but are reasonable estimates of the loss that the City and the public will incur for Contractor's noncompliance. The procedures governing the assessment of liquidated damages shall be those set forth in Section 12P.6.2 of Chapter 12P.
- 44.7. Contractor understands and agrees that if it fails to comply with the requirements of the MCO, the City shall have the right to pursue any rights or remedies available under Chapter 12P (including liquidated damages), under the terms of the contract, and under applicable law. If, within 30 days after receiving written notice of a breach of this Agreement for violating the MCO, Contractor fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Contractor fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, the City shall have the right to pursue any rights or remedies available under applicable law, including those set forth in Section 12P.6(c) of Chapter 12P. Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to the City.
- 44.8. Contractor represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the MCO.
- 44.9. If Contractor is exempt from the MCO when this Agreement is executed because the cumulative amount of agreements with this department for the fiscal year is less than \$25,000, but Contractor later enters into an agreement or agreements that cause contractor to exceed that amount in a fiscal year, Contractor shall thereafter be required to comply with the MCO under this Agreement. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between the Contractor and this department to exceed \$25,000 in the fiscal year.

45. Requiring Health Benefits for Covered Employees

45.1. Contractor agrees to comply fully with and be bound by all of the provisions of the Health Care Accountability Ordinance (HCAO), as set forth in San Francisco Administrative Code Chapter 12Q, including the remedies provided, and implementing regulations, as the same may be amended from time to time. The provisions of Chapter 12Q are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the HCAO is available on the web at www.sfgov.org/olse. Capitalized terms used in this Section

and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12Q.

- 45.2. For each Covered Employee, Contractor shall provide the appropriate health benefit set forth in Section 12Q.3 of the HCAO. If Contractor chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission.
- 45.3. Notwithstanding the above, if the Contractor is a small business as defined in Section 12Q.3(e) of the HCAO, it shall have no obligation to comply with part (a) above.
- 45.4. Contractor's failure to comply with the HCAO shall constitute a material breach of this agreement. City shall notify Contractor if such a breach has occurred. If, within 30 days after receiving City's written notice of a breach of this Agreement for violating the HCAO, Contractor fails to cure such breach or, if such breach cannot reasonably be cured within such period of 30 days, Contractor fails to commence efforts to cure within such period, or thereafter fails diligently to pursue such cure to completion, City shall have the right to pursue the remedies set forth in 12Q.5.1 and 12Q.5(f)(1-6). Each of these remedies shall be exercisable individually or in combination with any other rights or remedies available to City.
- 45.5. Any Subcontract entered into by Contractor shall require the Subcontractor to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section. Contractor shall notify City's Office of Contract Administration when it enters into such a Subcontract and shall certify to the Office of Contract Administration that it has notified the Subcontractor of the obligations under the HCAO and has imposed the requirements of the HCAO on Subcontractor through the Subcontract. Each Contractor shall be responsible for its Subcontractors' compliance with this Chapter. If a Subcontractor fails to comply, the City may pursue the remedies set forth in this Section against Contractor based on the Subcontractor's failure to comply, provided that City has first provided Contractor with notice and an opportunity to obtain a cure of the violation.
- 45.6. Contractor shall not discharge, reduce in compensation, or otherwise discriminate against any employee for notifying City with regard to Contractor's noncompliance or anticipated noncompliance with the requirements of the HCAO, for opposing any practice proscribed by the HCAO, for participating in proceedings related to the HCAO, or for seeking to assert or enforce any rights under the HCAO by any lawful means.
- 45.7. Contractor represents and warrants that it is not an entity that was set up, or is being used, for the purpose of evading the intent of the HCAO.
- 45.8. Contractor shall maintain employee and payroll records in compliance with the California Labor Code and Industrial Welfare Commission orders, including the number of hours each employee has worked on the City Contract.
 - 45.9. Contractor shall keep itself informed of the current requirements of the HCAO.
- 45.10. Contractor shall provide reports to the City in accordance with any reporting standards promulgated by the City under the HCAO, including reports on Subcontractors and Subtenants, as applicable.

- 45.11. Contractor shall provide City with access to records pertaining to compliance with HCAO after receiving a written request from City to do so and being provided at least ten business days to respond.
- 45.12. Contractor shall allow City to inspect Contractor's job sites and have access to Contractor's employees in order to monitor and determine compliance with HCAO.
- 45.13. City may conduct random audits of Contractor to ascertain its compliance with HCAO. Contractor agrees to cooperate with City when it conducts such audits.
- 45.14. If Contractor is exempt from the HCAO when this Agreement is executed because its amount is less than \$25,000 (\$50,000 for nonprofits), but Contractor later enters into an agreement or agreements that cause Contractor's aggregate amount of all agreements with City to reach \$75,000, all the agreements shall be thereafter subject to the HCAO. This obligation arises on the effective date of the agreement that causes the cumulative amount of agreements between Contractor and the City to be equal to or greater than \$75,000 in the fiscal year.

46. First Source Hiring Program

- 46.1. **Incorporation of Administrative Code Provisions by Reference**. The provisions of Chapter 83 of the San Francisco Administrative Code are incorporated in this Section by reference and made a part of this Agreement as though fully set forth herein. Contractor shall comply fully with, and be bound by, all of the provisions that apply to this Agreement under such Chapter, including but not limited to the remedies provided therein. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 83.
- 46.2. **First Source Hiring Agreement**. As an essential term of, and consideration for, any contract or property contract with the City, not exempted by the FSHA, the Contractor shall enter into a first source hiring agreement ("agreement") with the City, on or before the effective date of the contract or property contract. Contractors shall also enter into an agreement with the City for any other work that it performs in the City. Such agreement shall:
 - (a) Set appropriate hiring and retention goals for entry level positions. The employer shall agree to achieve these hiring and retention goals, or, if unable to achieve these goals, to establish good faith efforts as to its attempts to do so, as set forth in the agreement. The agreement shall take into consideration the employer's participation in existing job training, referral and/or brokerage programs. Within the discretion of the FSHA, subject to appropriate modifications, participation in such programs may be certified as meeting the requirements of this Chapter. Failure either to achieve the specified goal or to establish good faith efforts will constitute noncompliance and will subject the employer to the provisions of Section 83.10 of this Chapter.
 - (b) Set first source interviewing, recruitment and hiring requirements, which will provide the San Francisco Workforce Development System with the first opportunity to provide qualified economically disadvantaged individuals for consideration for employment for entry level positions. Employers shall consider all applications of qualified economically disadvantaged individuals referred by the System for employment; provided however, if the employer utilizes nondiscriminatory screening criteria, the employer shall have the sole discretion to interview and/or hire individuals referred or certified by the San Francisco Workforce Development System as being qualified economically disadvantaged individuals. The duration of the first source interviewing requirement shall be determined by the FSHA

and shall be set forth in each agreement, but shall not exceed 10 days. During that period, the employer may publicize the entry level positions in accordance with the agreement. A need for urgent or temporary hires must be evaluated, and appropriate provisions for such a situation must be made in the agreement.

- (c) Set appropriate requirements for providing notification of available entry level positions to the San Francisco Workforce Development System so that the System may train and refer an adequate pool of qualified economically disadvantaged individuals to participating employers. Notification should include such information as employment needs by occupational title, skills, and/or experience required, the hours required, wage scale and duration of employment, identification of entry level and training positions, identification of English language proficiency requirements, or absence thereof, and the projected schedule and procedures for hiring for each occupation. Employers should provide both long-term job need projections and notice before initiating the interviewing and hiring process. These notification requirements will take into consideration any need to protect the employer's proprietary information.
- (d) Set appropriate record keeping and monitoring requirements. The First Source Hiring Administration shall develop easy-to-use forms and record keeping requirements for documenting compliance with the agreement. To the greatest extent possible, these requirements shall utilize the employer's existing record keeping systems, be non-duplicative, and facilitate a coordinated flow of information and referrals.
- (e) Establish guidelines for employer good faith efforts to comply with the first source hiring requirements of this Chapter. The FSHA will work with City departments to develop employer good faith effort requirements appropriate to the types of contracts and property contracts handled by each department. Employers shall appoint a liaison for dealing with the development and implementation of the employer's agreement. In the event that the FSHA finds that the employer under a City contract or property contract has taken actions primarily for the purpose of circumventing the requirements of this Chapter, that employer shall be subject to the sanctions set forth in Section 83.10 of this Chapter.
 - **(f)** Set the term of the requirements.
- **(g)** Set appropriate enforcement and sanctioning standards consistent with this Chapter.
- **(h)** Set forth the City's obligations to develop training programs, job applicant referrals, technical assistance, and information systems that assist the employer in complying with this Chapter.
- (i) Require the developer to include notice of the requirements of this Chapter in leases, subleases, and other occupancy contracts.
- 46.3. **Hiring Decisions**. Contractor shall make the final determination of whether an Economically Disadvantaged Individual referred by the System is "qualified" for the position.
- 46.4. **Exceptions**. Upon application by Employer, the First Source Hiring Administration may grant an exception to any or all of the requirements of Chapter 83 in any situation where it concludes that compliance with this Chapter would cause economic hardship.
 - 46.5. **Liquidated Damages**. Contractor agrees:

- (a) To be liable to the City for liquidated damages as provided in this section;
- **(b)** To be subject to the procedures governing enforcement of breaches of contracts based on violations of contract provisions required by this Chapter as set forth in this section;
- (c) That the contractor's commitment to comply with this Chapter is a material element of the City's consideration for this contract; that the failure of the contractor to comply with the contract provisions required by this Chapter will cause harm to the City and the public which is significant and substantial but extremely difficult to quantity; that the harm to the City includes not only the financial cost of funding public assistance programs but also the insidious but impossible to quantify harm that this community and its families suffer as a result of unemployment; and that the assessment of liquidated damages of up to \$5,000 for every notice of a new hire for an entry level position improperly withheld by the contractor from the first source hiring process, as determined by the FSHA during its first investigation of a contractor, does not exceed a fair estimate of the financial and other damages that the City suffers as a result of the contractor's failure to comply with its first source referral contractual obligations.
- (d) That the continued failure by a contractor to comply with its first source referral contractual obligations will cause further significant and substantial harm to the City and the public, and that a second assessment of liquidated damages of up to \$10,000 for each entry level position improperly withheld from the FSHA, from the time of the conclusion of the first investigation forward, does not exceed the financial and other damages that the City suffers as a result of the contractor's continued failure to comply with its first source referral contractual obligations;
- **(e)** That in addition to the cost of investigating alleged violations under this Section, the computation of liquidated damages for purposes of this section is based on the following data:
- (i) The average length of stay on public assistance in San Francisco's County Adult Assistance Program is approximately 41 months at an average monthly grant of \$348 per month, totaling approximately \$14,379; and
- (ii) In 2004, the retention rate of adults placed in employment programs funded under the Workforce Investment Act for at least the first six months of employment was 84.4%. Since qualified individuals under the First Source program face far fewer barriers to employment than their counterparts in programs funded by the Workforce Investment Act, it is reasonable to conclude that the average length of employment for an individual whom the First Source Program refers to an employer and who is hired in an entry level position is at least one year;
- (iii) therefore, liquidated damages that total \$5,000 for first violations and \$10,000 for subsequent violations as determined by FSHA constitute a fair, reasonable, and conservative attempt to quantify the harm caused to the City by the failure of a contractor to comply with its first source referral contractual obligations.
 - (f) That the failure of contractors to comply with this Chapter, except property contractors, may be subject to the debarment and monetary penalties set forth in Sections 6.80 et seq. of the San Francisco Administrative Code, as well as any other remedies available under the contract or at law; and

Violation of the requirements of Chapter 83 is subject to an assessment of liquidated damages in the amount of \$5,000 for every new hire for an Entry Level Position improperly withheld from the first source hiring process. The assessment of liquidated damages and the evaluation of any defenses or mitigating factors shall be made by the FSHA.

46.6. **Subcontracts**. Any subcontract entered into by Contractor shall require the subcontractor to comply with the requirements of Chapter 83 and shall contain contractual obligations substantially the same as those set forth in this Section.

47. Prohibition on Political Activity with City Funds

In accordance with San Francisco Administrative Code Chapter 12.G, Contractor may not participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure (collectively, "Political Activity") in the performance of the services provided under this Agreement. Contractor agrees to comply with San Francisco Administrative Code Chapter 12.G and any implementing rules and regulations promulgated by the City's Controller. The terms and provisions of Chapter 12.G are incorporated herein by this reference. In the event Contractor violates the provisions of this section, the City may, in addition to any other rights or remedies available hereunder, (i) terminate this Agreement, and (ii) prohibit Contractor from bidding on or receiving any new City contract for a period of two (2) years.

48. Preservative-treated Wood Containing Arsenic

As of July 1, 2003, Contractor may not purchase preservative-treated wood products containing arsenic in the performance of this Agreement unless an exemption from the requirements of Chapter 13 of the San Francisco Environment Code is obtained from the Department of the Environment under Section 1304 of the Code. The term "preservative-treated wood containing arsenic" shall mean wood treated with a preservative that contains arsenic, elemental arsenic, or an arsenic copper combination, including, but not limited to, chromate copper arsenate preservative, ammonia cal copper zinc arsenate preservative, or ammonia cal copper arsenate preservative. Contractor may purchase preservative-treated wood products on the list of environmentally preferable alternatives prepared and adopted by the Department of the Environment. This provision does not preclude Contractor from purchasing preservative-treated wood containing arsenic for saltwater immersion. The term "saltwater immersion" shall mean a pressure-treated wood that is used for construction purposes or facilities that are partially or totally immersed in saltwater.

49. Modification of Agreement

- 49.1. **Modification in Writing**. This Agreement may not be modified, nor may compliance with any of its terms be waived, except by written instrument executed and approved as required by law. Contractor shall cooperate with the SFMTA to submit to the Contract Compliance Office any amendment, modification, supplement or change order that would result in a cumulative increase of the original amount of this Agreement by more than 20%.
- 49.2. **Extra Work**. The City may order changes in the work under this Agreement and may order extra materials and extra work in connection with the performance of the Agreement, and the Contractor shall promptly comply with such orders, except that:
 - (a) If changes ordered in design, workmanship, services, or materials are of such a nature as to increase or decrease the cost, or the time required to execute the change in

scope of work, the City shall make a reasonable and proper adjustment in the contract price, delivery schedule, or both as agreed upon by the Contractor and the City as the reasonable and proper allowance for the increase or decrease required.

(b) No order for any alteration, modification, or extra that will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Senior Program Manager. No oral statement of any person whosoever shall in any manner or degree modify or otherwise affect the terms of this contract, which include the requirements of the Technical Specifications.

50. Authority of Engineer

The Engineer shall decide all questions, which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions, which may arise as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to compensation. In discharging the responsibilities outlined above, the Engineer shall at all times act fairly and reasonably. Any appeal of the Engineer's decisions shall be in accordance with the provisions of Section 56 of this Agreement. As with any claim, change, extra or additional work, Contractor shall be paid in accordance with the payment provisions of this Contract when the dispute is finally resolved.

Should any questions arise as to the meaning and intent of the Contract, the matter shall be referred to the Engineer, who, with input from SFMTA staff and from the Contractor, shall decide the true meaning and intent of the Contract. The Engineer's decision in this regard shall be administratively final and conclusive.

51. 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.

52. Construction

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

53. Entire Agreement

This contract sets forth the entire Agreement between the parties, and supersedes all other oral or written provisions. This contract may be modified only as provided in Section 48.

54. Compliance with Laws

Contractor shall keep itself fully informed of the City's Charter, codes, ordinances 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.

55. 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 Contractor, will be paid unless the provider received advance written approval from the City Attorney.

56. Disputes

- 56.1. **Notice of Dispute**. For any dispute involving a question of fact that does not involve a claim for additional compensation, the aggrieved party shall furnish the other party with a notice of dispute within fifteen (15) days of the determination of the dispute. The party receiving a notice of dispute shall submit a written reply with fourteen (14) days of delivery of the notice. The notice and response shall contain the following: (a) a statement of the party's position and a summary of the arguments supporting that position, and (b) any evidence supporting the party's position.
- 56.2. **Resolution of Disputes**. Disputes arising in the performance of this Agreement that are not resolved by negotiation between the Engineer and the Contractor shall be decided in writing by the SFMTA Senior Program Manager. The decision shall be administratively final and conclusive unless within ten (10) days from the date of such decision, the Contractor mails or otherwise furnishes a written appeal to the Director of Capital Programs and Construction, or his/her designee. In connection with such an appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the Director of Capital Programs and Construction shall be administratively final and conclusive. This section applies to all disputes unless a specific provision of this Agreement provides that the Engineer's decision as to a particular dispute is final.
- 56.3. **No Cessation of Work**. Pending final resolution of a dispute hereunder, the Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the written directions of the Engineer.
- 56.4. **Alternative Dispute Resolution**. If agreed to by both parties, disputes may be resolved by a mutually agreed to alternative dispute resolution process.
- 56.5. Claims for Additional Compensation. For disputes involving a claim for additional compensation, parties involved shall attempt to resolve such disputes expediently and in good faith so as not to impact the performance or schedule of the Project. Under no circumstances shall the Contractor or its subconsultants stop work due to an unresolved dispute.
- 56.6. **Disputes among Contractor Partners**. The resolution of any contractual disputes related to Contractor's Joint Venture or Association partners (if any) shall be the sole responsibility of the Contractor. Each party of the Joint Venture or Association shall resolve all such disputes within thirty (30) calendar days of when the dispute first surfaced so as not to impact the performance of the contract with the City. Any such disputes which impact the Project and which are left unresolved for more than one month shall be cause for the City to withhold and/or reduce invoice payments to the Contractor's Joint Venture or Association firms until the dispute is resolved.

57. 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.

58. Protection of Private Information

Contractor has read and agrees to the terms set forth in San Francisco Administrative Code Sections 12M.2, "Nondisclosure of Private Information," and 12M.3, "Enforcement" of Administrative Code Chapter 12M, "Protection of Private Information," which are incorporated herein as if fully set forth. Contractor agrees that any failure of Contactor to comply with the requirements of Section 12M.2 of this Chapter shall be a material breach of the Contract. In such an event, in addition to any other remedies available to it under equity or law, the City may terminate the Contract, bring a false claim action against the Contractor pursuant to Chapter 6 or Chapter 21 of the Administrative Code, or debar the Contractor.

59. Graffiti Removal

Graffiti is detrimental to the health, safety and welfare of the community in that it promotes a perception in the community that the laws protecting public and private property can be disregarded with impunity. This perception fosters a sense of disrespect of the law that results in an increase in crime; degrades the community and leads to urban blight; is detrimental to property values, business opportunities and the enjoyment of life; is inconsistent with the City's property maintenance goals and aesthetic standards; and results in additional graffiti and in other properties becoming the target of graffiti unless it is quickly removed from public and private property. Graffiti results in visual pollution and is a public nuisance. Graffiti must be abated as quickly as possible to avoid detrimental impacts on the City and County and its residents, and to prevent the further spread of graffiti.

Contractor shall remove all graffiti from any real property owned or leased by Contractor in the City and County of San Francisco within forty eight (48) hours of the earlier of Contractor's (a) discovery or notification of the graffiti or (b) receipt of notification of the graffiti from the Department of Public Works. This section is not intended to require a Contractor to breach any lease or other agreement that it may have concerning its use of the real property. The term "graffiti" means any inscription, word, figure, marking or design that is affixed, marked, etched, scratched, drawn or painted on any building, structure, fixture or other improvement, whether permanent or temporary, including by way of example only and without limitation, signs, banners, billboards and fencing surrounding construction sites, whether public or private, without the consent of the owner of the property or the owner's authorized agent, and which is visible from the public right-of-way. "Graffiti" shall not include: (1) any sign or banner that is authorized by, and in compliance with, the applicable requirements of the San Francisco Public Works Code, the San Francisco Planning Code or the San Francisco Building Code; or (2) any mural or other painting or marking on the property that is protected as a work of fine art under the California Art Preservation Act (California Civil Code Sections 987 et seq.) or as a work of visual art under the Federal Visual Artists Rights Act of 1990 (17 U.S.C. §§ 101 et seq.).

Any failure of Contractor to comply with this section of this Agreement shall constitute an Event of Default of this Agreement.

60. Food Service Waste Reduction Requirements

Effective June 1, 2007, Contractor agrees to comply fully with and be bound by all of the

provisions of the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including the remedies provided, and implementing guidelines and rules. The provisions of Chapter 16 are incorporated herein by reference and made a part of this Agreement as though fully set forth. This provision is a material term of this Agreement. By entering into this Agreement, Contractor agrees that if it breaches this provision, City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of one hundred dollars (\$100) liquidated damages for the first breach, two hundred dollars (\$200) liquidated damages for the second breach in the same year, and five hundred dollars (\$500) liquidated damages for subsequent breaches in the same year is reasonable estimate of the damage that City will incur based on the violation, established in light of the circumstances existing at the time this Agreement was made. Such amount shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply with this provision.

61. Time of Essence

Time is of the essence in this Agreement.

62. Technical Specifications

- 62.1. **Fabrication**. The LRVs shall be rehabilitated in accordance with the Technical Specifications, Volume 2 of this Agreement.
- 62.2. **Omission**. Notwithstanding the Technical Specifications or other data provided by the Engineer, the Contractor shall have the responsibility of supplying all parts and details required to rehabilitate the LRVs as specified in the Technical Specifications and return the Vehicles in a condition that is complete and ready for service. Items that are installed by SFMTA shall not be the responsibility of the Contractor unless they are included in this contract or should have been installed by the Contractor.
- 62.3. **Priority**. In the event of any deviation between the description of these LRVs in the Technical Specifications and in this document, the Technical Specifications shall govern.
- 62.4. **Materials/Accessories Responsibility**. The Contractor shall be responsible for all materials and workmanship in the repair of the LRV systems required by the Technical Specifications and all accessories used, whether the same are manufactured by the Contractor or purchased from a subcontractor. This provision excludes equipment leased or supplied by SFMTA, except insofar as such equipment is damaged by the failure of a part or component for which the Contractor is responsible, or except insofar as the damage to such equipment is caused by the Contractor during the manufacture of the Vehicle.

63. Assumption of Risk of Loss

Prior to acceptance of the repaired LRVs, the Contractor shall bear risk of loss of the Vehicle, including any damage sustained during transportation to the delivery site or during acceptance testing. The City shall assume risk of loss of these Vehicles only after acceptance.

64. Repairs Prior to Acceptance.

64.1. **General**. The SFMTA may require the Contractor, or its designated representative, to perform repairs after non-acceptance, or the Contractor may request that the work be done by SFMTA personnel with reimbursement by the Contractor. Contractor shall

inform SFMTA in advance of any modifications made to the Vehicle during the acceptance period.

64.2. **Repairs by Contractor**. If the SFMTA requires the Contractor to perform repairs after non-acceptance of the coach, the Contractor's representative must begin the repair within five (5) working days after receiving notification from the SFMTA of failure of acceptance tests. The Contractor shall provide, at its own expense, all spare parts, tools, and labor required to complete the repairs. At the SFMTA's option, the Contractor may be required to remove the Vehicle, at its own expense, from SFMTA property while repairs are being performed. The Contractor shall then provide a space to complete the repairs, shall diligently pursue the repairs, and shall assume risk of loss while the Vehicle is under its control.

64.3. **Repairs by SFMTA**.

- (a) If the SFMTA agrees to a request by the Contractor for SFMTA to perform repairs on a Vehicle prior to SFMTA acceptance, SFMTA shall correct or repair the defect using parts supplied by the Contractor specifically for this repair. Monthly, or at a period to be mutually agreed upon, SFMTA shall submit to Contractor reports of all repairs covered by this procedure for actual cost reimbursement. The Contractor shall provide forms for these reports.
- (b) If the Contractor supplies parts for repairs being performed by SFMTA before acceptance of the coach, Contractor shall ship these parts prepaid to SFMTA within 10 working days after receipt of the request for said parts. The Contractor may request that defective components covered by this provision be returned to the manufacturing plant. Contractor shall bear all expenses for supplying such parts and for any associated costs.
- (c) Contractor shall reimburse SFMTA for all costs of labor and materials (including taxes) for repairs made or caused to be made by SFMTA. If SFMTA performs the repairs itself, the amount shall be determined by multiplying the number of man-hours actually required to correct the defect by the current technician's hourly overtime wage rate, which includes fringe benefits and overhead, plus the cost of transporting the Vehicle if such action was necessary. If SFMTA requires the service of an outside repair shop, Contractor shall reimburse SFMTA for all such repair invoices. Contractor shall also reimburse SFMTA for administrative costs incurred in performing the repairs. The use of SFMTA labor will not relieve the Contractor from the responsibility to ensure that repairs are carried out in accordance with proper procedures.
- (d) The City may deduct the cost of repairs from any monies due or that may become due to the Contractor under the Agreement, or if such monies are insufficient, the contractor or its surety shall pay to the City any deficiency.

65. Warranty Provisions

65.1. **Contractor Warranty**. Warranties in this document are in addition to any statutory remedies or warranties imposed on the Contractor. Warranties include 100 percent of parts and labor costs. Consistent with these requirements, the Contractor warrants and guarantees to the SFMTA each complete LRV, and specific subsystems and components repaired under this Agreement, to be free from Defects for two years, beginning on the date of acceptance of each LRV under Section 64.3(a) above and under the applicable provisions of either Volume 2A or 2B of the Technical Provisions. The warranty is based on regular operation of the LRV under the operating conditions prevailing in Muni service.

- 65.2. **Detection Of Defects**. If the SFMTA detects a Defect within the warranty period, it shall within 20 working days, notify the Contractor's representative. Within five working days after receipt of notification, the Contractor's representative shall either agree that the Defect is in fact covered by warranty, or reserve judgment until the subsystem or component is inspected by the Contractor's representative or is removed and examined at the SFMTA's property or at the Contractor's plant. At that time, the status of warranty coverage on the subsystem or component shall be mutually resolved between the SFMTA and the Contractor. Work shall commence to correct the Defect within 10 working days after receipt of notification and shall be conducted in accordance with "Repairs by Contractor" (Section 66.2).
- 65.3. **Scope Of Warranty Repairs**. When warranty repairs are required, the SFMTA and the Contractor's representative shall agree within five working days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be performed under the warranty. If no agreement is obtained within the five-day period, the SFMTA reserves the right to commence the repairs in accordance with "Repairs by SFMTA" (Section 66.3).

66. Repair Procedures

66.1. **Repair Performance.** The Contractor is responsible for all warranty-covered repair work. To the extent practicable, the SFMTA will allow the Contractor or its designated representative to perform such work. At its discretion, the SFMTA may perform such work if it determines it needs to do so based on transit service or other requirements. Such work shall be reimbursed by the Contractor.

66.2. Repairs By Contractor

- (a) Unless the time is extended by the SFMTA, the Contractor or its designated representative shall begin work on warranty-covered repairs within five calendar days after receiving notification of a Defect from the SFMTA. The SFMTA shall make the LRV available to complete repairs timely with the Contractor repair schedule.
- (b) The Contractor shall provide at its own expense all spare parts, tools, and space required to complete repairs. At the SFMTA's option, the Contractor may be required to remove the LRV from the SFMTA's property while repairs are being performed. If the LRV is removed from the SFMTA's property, repair procedures must be diligently pursued by the Contractor's representative. Contractor shall bear all costs for transporting the LRV for repairs.

66.3. Repairs By SFMTA

- (a) Parts Used. If the SFMTA performs the warranty-covered repairs, it shall correct or repair the Defect and any Related Defects utilizing parts supplied by the Contractor specifically for this repair. At its discretion, the SFMTA may use Contractor-specified parts available from its own stock if deemed in its best interest. Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this warranty shall be submitted by the SFMTA to the Contractor for reimbursement or replacement of parts. The Contractor shall provide forms for these reports.
- **(b)** Contractor Supplied Parts. The SFMTA may require that the Contractor supply new parts for warranty-covered repairs being performed by the SFMTA. These parts shall be shipped prepaid to the SFMTA from any source selected by the Contractor within ten (10) working days of receipt of the request for said parts. Parts supplied

by the Contractor shall be Original Equipment Supplier (OEM) equivalent or superior to that used in the LRV original manufacture.

- **(c) Return of Defective Components.** The Contractor may request that parts covered by the warranty be returned to the manufacturing plant. The total cost for this action shall be paid by the Contractor. Materials should be returned in accordance with Contractor's instructions.
- (d) Reimbursement For Labor. Contractor shall reimburse the SFMTA for labor. The amount shall be determined by multiplying the number of man-hours actually required to correct the Defect by the current top mechanic's hourly overtime wage rate. The wage rate, and therefore, the warranty labor rate, is subject to adjustment each year. Through June 30, 2010, the warranty labor rate shall be based on the electronic maintenance technician's wage rate of \$182.25/hour, which includes labor, fringe benefits, and overhead. Contractor shall also reimburse the SFMTA for the cost of transporting the Vehicle if such action was necessary. These wage and fringe benefit rates shall not exceed the rates in effect in the SFMTA's service division at the time the Defect correction is made.
- (e) **Reimbursement For Parts.** Contractor shall reimburse the SFMTA for defective parts and for parts that must be replaced to correct the Defect. The reimbursement shall be at the current price at the time of repair and shall include taxes where applicable and 15 percent handling costs.
- **(f) Reimbursement Requirements.** The Contractor shall reimburse the SFMTA for warranty labor and/or parts within 60 days of receipt of the warranty claim.
- 66.4. **Warranty After Replacement/Repairs**. If any component, unit, or subsystem is repaired, rebuilt or replaced by the Contractor, or by the SFMTA with the concurrence of the Contractor, the component, unit, or subsystem shall be assigned a new warranty period equal to the original manufacturer's warranty, effective the replacement date.

67. Delivery of Vehicles

- 67.1. **Delivery Rate**. Vehicle deliveries shall be in accordance with the Delivery Schedule, attached as Exhibit A to this Agreement.
- 67.2. **Vehicle Delivery Conditions**: All deliveries to SFMTA shall be to an SFMTA-specified Light Rail Vehicle facility, weekday working hours, Monday through Friday, 9 a.m. 3 p.m., except SFMTA holidays, or as otherwise specified in writing by SFMTA. Contractor shall provide at least 48 hours notice to SFMTA prior to delivery.

68. Unavoidable Delays

68.1. **Definition**. An Unavoidable Delay is an interruption of the work beyond the control of the Contractor, which the Contractor could not have avoided by the exercise of care, prudence, foresight, and diligence. Such delays include and are limited to acts of God; floods; windstorms; tornadoes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes and lockouts; freight embargoes; acts of a governmental agency; priorities or privileges established for the manufacture, assembly, or allotment of materials by order, decree, or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the work ordered by the City insofar as they necessarily require additional time in which to complete the entire work; the prevention by the

City of the Contractor's commencing or prosecuting the work. The duration of said Unavoidable Delays shall be limited to the extent that the commencement, prosecution, and completion of the work are delayed thereby, as determined by the City.

- 68.2. **Notification of Delay**. The Contractor shall notify SFMTA as soon as the Contractor has, or should have, knowledge that an event has occurred that will delay deliveries. Within five calendar days, the Contractor shall confirm such notice in writing, furnishing as much detail as is available.
- 68.3. **Request for Extension**. The Contractor agrees to supply, as soon as such data are available, any reasonable proof that is required by SFMTA to make a decision on any request for extension due to Unavoidable Delays. SFMTA shall examine the request and any documents supplied by the Contractor and shall determine if the Contractor is entitled to an extension and the duration of such extension. SFMTA shall notify the Contractor of its decision in writing. The granting of an extension of time because of Unavoidable Delays shall in no way operate as a waiver on the part of the City of the right to collect liquidated damages for other delays or of any other rights to which the City is entitled.

69. Options.

69.1. **Description**.

- (a) **Option 1**. There shall an allowance of \$1,000,000 to purchase parts and components for the LRVs which, upon inspection after the vehicle is dissassembled, may not be in a condition that would allow their reuse in the vehicle. Alternatively, at the SFMTA's discretion, the allowance may be used to procure an enhancement to the vehicle simulator to be provided under this Agreement.
- **(b) Option 2**. There shall be an allowance of \$1,000,000 to perform asneeded repair work on other SFMTA LRVs that may be damaged in collisions.
- (c) Option 3. Under this Option, Contractor shall repair Cars Nos. 1429 and/or 1425. See Technical Specifications, Section 1.2.

69.2. **Procedure for Exercising Options.**

- (a) Options 1 and 2. If the SFMTA desires to exercise Options 1 or 2, the Senior Program Manager shall issue an Option Task Order to the Contractor with the scope for the desired work and the expected time of completion. The work shall be performed in accordance with the terms and conditions of this Agreement. The Senior Program Manager shall transmit the Option Task Order to the Contractor with a request for a proposal for the performance of the task. The Contractor shall prepare and submit a proposal for the task to the Senior Program Manager showing:
- (i) A detailed description by subtask of the work to be performed and the means and methods that will be used to perform it;
- (ii) Milestones for completion for each subtask and deliverables at each milestone;
 - (iii) A detailed cost estimate for the work showing:

- (1) Estimated labor costs, including overhead rates;
- (2) Cost for materials and equipment;
- (3) Estimated reasonable out-of-pocket expenses;
- (4) Proposed profit as fixed fee amount.
- **(b) Option 3** The SFMTA will exercise all or a portion of Option 3 by issuing a Notice to Proceed with the work for LRV No. 1435 and/or No. 1429 indicating that funds have been certified by the Controller for the cost of the work.
- **(c) Time to Exercise Options.** The SFMTA shall have 12 months from the Effective Date to exercise Option 1. Option 2 may be exercised up to six months prior to the end of the term of the Agreement. Option 3 may be exercised within three years from the Effective Date.

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

CITY	CONTRACTOR
Municipal Transportation Agency	By signing this Agreement, I certify that I comply with the requirements of the Minimum Compensation Ordinance, which entitle Covered Employees to certain minimum
Nathaniel P. Ford Sr. Executive Director/CEO	hourly wages and compensated and uncompensated time off.
	I have read and understood paragraph 35, the City's statement urging companies doing
Approved as to Form:	business in Northern Ireland to move towards
Dennis J. Herrera City Attorney	resolving employment inequities, encouraging compliance with the MacBride Principles, and urging San Francisco companies to do business with corporations that abide by the MacBride
ByRobin M. Reitzes Deputy City Attorney	Principles.
SFMTA Board of Directors Resolution No Adopted	Lorenzo Reffreger Vice President, Marketing, Sales and Service AnsaldoBreda Inc. 1461 Loveridge Road Pittsburg, CA 94565
Secretary, Board of Directors	City vendor number: 41208
Board of Supervisors	
Resolution No Dated:	
Attest:	
Clerk of the Board	

EXHIBITS

Exhibit A: Delivery Schedule Exhibit B: Price Schedule Exhibit C: Payment Schedule

EXHIBIT A

DELIVERY SCHEDULE

DELIVERY MILESTONE	Calendar Days	AFTER NTP
a. Delivery of Technical Data Package (TDP) as specified in	+45	45 days
Table 1 of the Technical Specifications		
b. Vehicle simulator		
c. Delivery of the Short Turn-Around Cars (Part of Base	+500	545 days
Contract) – 2 LRVs		
d. Delivery of Long Turn-Around Cars with Original G.E.	+365	910 days
Propulsion (Part of Base Contract) – 1 LRV		
e. Delivery of Vehicle Simulator	+0	730 days
f. Delivery of Long Turn-Around Cars with New	+730	1640 days
AnsaldoBreda Propulsion (Part of Base Contract) – 2 LRVs		
g. Delivery of Cars under Option 3 of the Agreement – 2 LRVs	+300	1940 days
h. Delivery of Car Repair Book as specified in Table 1 of the	+45	1985 days
Technical Specifications		

EXHIBIT B

PRICE SCHEDULE

CPT 626.02

Item	Car No.	Base Price	Sales Tax	Total Price
No.				
1	1499	\$2,153,720	\$47,446	\$2,201,166
2	1433	\$1,790,262	\$84,850	\$1,875,112
3	1407	\$1,896,977	\$92,379	\$1,989,356
4	1500	\$6,497,586	\$220,292	\$6,717,878
5	1541	\$7,172,411	\$218,728	\$7,391,139
6	Vehicle	No extra charge		No extra charge
	simulator			
7	Option 1 (Material Allowance and/or vehicle simulator		\$1,000,000	
	enhancement – 12 months to exercise simulator enhancement)			
8	Option 2 (Allowance for future wreck repair)			\$1,000,000
9	Option 3			
9A	1435	\$4,924,379	\$175,808	\$5,100,187
9B	1429	\$5,401,427	\$178,357	\$5,579,784

EXHIBIT C

PAYMENT SCHEDULE

Item No.	Milestone	Payment Schedule
	Contract	
1	Delivery of Contractor's Management Work Plan and	5% of the Total Price of
	Program CDRLs as Specified in Table 1 of the	Items 1-5 in Exhibit B
2	Technical Specifications	50/ of the Total Dries of
2	Approval of Contractor's Management Work Plan and	5% of the Total Price of Items 1-5 in Exhibit B
	Program CDRLs as Specified in Table 1 of the Technical Specifications	items 1-3 in Exhibit B
3	Pick-up of Cars from SFMTA Metro Yard	5% of the Total Price of Each Car
4	Issue Purchase Order of Major Components to be	25% of the Total Price of
	Used in the Repair	Items 1-5 in Exhibit B
5	Complete Structural Repairs of the Cars	25% of the Total Price of
		Each Car
6	Delivery of Car to SFMTA Metro Yard	25% of Total Price of Each
		Car
7	Delivery and Approval of Training Plan	2% of the Total Price of
		Items 1-5 in Exhibit B
8	Completion of all training	3% of the Total Price of
		Items 1-5 in Exhibit B
9	Final Acceptance of All Contract Deliverables	5% of the Total Price of
Ontio		Items 1-5 in Exhibit B
Optio 10	Option No. 1 (Material Allowance and/or Vehicle	Actual Cost Billed
10	Simulator Enhancement)	Monthly
11	Option No. 2 (Allowance for Future Wreck Repair)	To be negotiated
	on No. 3 – Repair 1435 and 1429	10 be negotiated
12	Pick-up of Cars from SFMTA Metro Yard	15% of the Total Price of
12	Tick-up of Cars from 51 W174 Wicho Tard	Each Car
13	Issue Purchase Order of Major Components to be	25% of the Total Price of
	Used in the Repair	Items 1-5 in Exhibit A
14	Complete Structural Repairs of the Cars	25% of the Total Price of
	r	Each Car
15	Delivery of Car to SFMTA Metro Yard	25% of the Total Price of
	-	Each Car
16	Final Acceptance of All Contract Deliverables	10% of Total Price of Each Car

Damaged LRV Repairs

Volume 2

TECHNICAL SPECIFICATIONS

Date: May 1, 2010

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General

These Technical Specifications describe the repair of SFMTA Light Rail Vehicles ("LRVs" or "Cars") that have sustained substantial damage due to accidents and other causes. The Car numbers are 1407, 1499, 1429, 1435, 1500, 1541 and 1433.

The Contractor shall be responsible to repair all damage to the LRVs, making each LRV whole and revenue ready, and ensuring that it operates properly and trainlines properly with the other LRVs in the fleet.

The repaired LRV and the process to repair the LRV shall meet the original Technical Specifications of conformed Contract Proposal #309, dated January 6, 1992, as modified through Contract Modifications Nos. 1-12 ("Original Specifications"). Re-used parts shall be inspected, repaired if damaged and tested, if appropriate, to verify operation according to the performance requirements of the Original Specifications. All Cars to be repaired under these Technical Specifications shall include all of the work specified in Contract APT591.01 – Doors and Steps Reconditioning and Systems Rehabilitation, as amended, between the City and AnsaldoBreda.

Short Turn-Around Cars

The "A"-sections and "B"-sections of four Cars will be disconnected and assembled as explained below.. This will allow two good Cars to be assembled and returned to SFMTA in the short term while the damaged ends are being repaired.

1.1.1. Sections 1435A and 1433B shall be joined and identified as Car No. 1433.

- 1. Section 1435A has no structural damage, but it has been stripped of parts; Section 1433B has no structural damage and is complete.
- 2. Parts from 1433A, which is structurally damaged but complete, may be used to complete 1435A.
- 3. Sections, 1435B and 1433A shall be joined and will be identified as Car No. 1435.

1.1.2. Sections 1429A and 1407B shall be joined and identified as Car No. 1407.

- 1. Section 1429A has no structural damage, but it has been stripped of parts, and Section 1407B has no structural damage and is complete.
- 2. Parts from 1407A, which is structurally damaged but complete, may be used to complete 1429A.
- 3. Sections, 1407A and 1429B shall be joined and will be identified as Car No. 1429.

Long Turn-Around Cars

Five Cars will require major repair and are identified as Nos. 1429, 1435, 1499, 1500, and 1541.

These Cars may require complete stripping of their shell in order to access structural members for repair, and to avoid damage to the interiors, wire harnesses, electrical and mechanical systems and components.

AnsaldoBreda Propulsion System Cars

The Contractor shall install a new AnsaldoBreda propulsion system on LRV Nos. 1500 and 1541. The AnsaldoBreda propulsion system shall be a solid state AC drive, Isulated-Gate Bipolar Transistor (IGBT) propulsion system. The new propulsion system shall be configured to fully integrate with the LRV's control system and the existing GE traction motors.

All performance parameters (tractive effort, acceleration and deceleration rates, car speed, spin/slide correction, cooling requirements, load weigh compensation, dynamic braking and regenerative brake blending, shall be compatible with the existing GE GTO propulsion system and Knorr friction brake systems.

Coupled car trainline performance integrity with the existing GE system shall not be adversely affected. Audible noise levels and EMI shall not be degraded as compared to the existing system. Low voltage loading shall not increase over the existing system.

AnsaldoBreda Auxiliary Power Supply

The Contractor shall install new auxiliary electrical systems in the LRVs with the new AnsaldoBreda propulsion system. The auxiliary electrical systems consisting of the intermediate voltage power supply, low voltage power supply and the auxiliary inverter shall be replaced with a solid state IGBT system.

The new auxiliary electrical package shall meet or exceed the existing system in terms of output power and battery charging capability. The new package shall be configured to fully integrate with the existing high and low voltage DC and AC circuits.

SFMTA Supplied Parts

The SFMTA will supply various parts to the contractor in order for contractor to complete the Cars. The following parts will be supplied by SFMTA on the following specific LRVs:

1. LRV No. 1433

- a. Support Mirror LH Manual Control
- b. Support Mirror RH Automatic Control
- c. Main Body Window
- d. Master Controller

- 2. LRV No. 1407
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller
- 3. LRV No. 1499
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller
- 4. LRV No. 1500
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller
 - f. Motor Trucks
 - g. Trailer Truck
 - h. Air Conditioning Unit
 - i. Pantograph
- 5. LRV No. 1435
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller
 - f. Motor Trucks
 - g. Trailer Truck
 - h. Air Conditioning Unit
 - i. Pantograph
 - j. G.E. Propulsion System from LRV 1500
- 6. LRV No. 1541
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller
 - f. Motor Trucks
 - g. Trailer Truck
 - h. Air Conditioning Unit
 - i. Pantograph
- 7. LRV No. 1429
 - a. Support Mirror LH Manual Control
 - b. Support Mirror RH Automatic Control
 - c. Dellner Couplers
 - d. Main Body Windows
 - e. Master Controller

- f. Motor Trucks
- g. Trailer Truck
- h. Air Conditioning Unit
- i. Pantograph
- j. G.E. Propulsion System from LRV 1541

Overhauled Major Systems

The Contractor shall overhaul the following major systems that will be installed in the repaired LRVs.

- 1. LRV No. 1500
 - a. Knorr Brake System
 - b. Knorr Brake ASU
- 2. LRV No. 1435
 - a. GE Propulsion system from 1500
 - b. GE LVPS
 - c. Knorr Brake System
 - d. Knorr Brake ASU
- 3. LRV No. 1541
 - a. Knorr Brake System
 - b. Knorr Brake ASU
- 4. LRV No. 1429
 - a. GE Propulsion system from 1541
 - b. GE LVPS
 - c. Knorr Brake System
 - d. Knorr Brake ASU

Simulator

The Contractor shall develop and provide software for LRV operation training that will simulate LRV controls, operation on SFMTA trackway, operation in traffic and Central Control instructions. The software shall run on Windows XP and later-type Microsoft® operating systems. The Contractor shall provide eight (8) laptop computers loaded with the training software and all necessary peripheral equipment such as joysticks and computer mice.

LRV controls and display shall be simulated on the lower portion of the screen and be able to be operated by either a joystick or a mouse. SFMTA rail routes shall be mapped and programmed into the software, providing an LRV operator's cab window viewpoint of the system on the upper portion of the screen. The exact size, dimension and final scope shall be agreed upon by both parties during the design process of the simulator.

Training courses shall be programmable by the instructor. The software shall provide real-time response to the trainee's actions. The trainee's actions shall be recorded for instructor review. The instructor shall be able to program the software with Central Control instructions and LRV or operational fault scenarios.

The software shall also simulate:

- 1. LRV start-up, "pre-op" and shut down.
- 2. LRV coupling and uncoupling
- 3. Operation in manual and automatic
- 4. Control of destination signs
- 5. Train ID thumb switch
- 6. Control of Vetag and track switches
- 7. Operation of radio and PA
- 8. Operation of foot switches
- 9. Operation of doors and steps

Contract Deliverables

In addition to the repair of each LRV, the Contractor will be required to submit a series of deliverables. All deliverables listed in this Technical Specifications are to be submitted to the SFMTA for approval on letter-sized sheets, except for drawings and schematics which can be provided on larger sheets. Each deliverable will be accompanied with a cover letter on the Contractor's letterhead and assigned a unique tracking number. To the extent practicable, all hard copies of the deliverables shall be double-sided and on recycled paper.

All deliverables are to be submitted to SFMTA per the "Project Delivery Schedule" in Exhibit A of the Agreement. Deliverables which affect all LRVs will be submitted as part of the Technical Data Package (TDP). Deliverables which are specific to one LRV are to be collected into a single package of three-ring binders called the Car Repair Book (CRB). Each repaired LRV shall receive its own CRB. Each CRB shall be delivered along with the LRV..

Copies of all deliverables shall be provided in Adobe Portable Document Format (PDF) unless otherwise noted and delivered with the hard copy. Each CRB will be digitalized onto a write-once compact disc. Three copies of the disc are to be delivered with the hard copy CRB.

Timeliness of the deliverable is of the utmost importance since the work or subsequent work associated with each deliverable shall not begin until the SFMTA has approved the deliverable.

All deliverables are listed in Table 1 and are described in Chapters 2, 3, 5, 6, 8, 9, 10 and 15.

Table 1: Deliverables: TDP (Technical Data Package) and CRB (Car Repair Book)

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Management Plan

The Contractor shall provide a management plan describing the Contractor's project team organization, listing the personnel responsible for the project's completion, their individual areas of responsibility, their qualifications, and their contact information. As the personnel resources change during the life of the project, the Contractor shall update its management plan.

5. Management Plan

Project Plan and Schedule

The Contractor shall provide a detailed repair project plan and schedule. The plan shall describe how and where the work will be conducted and coordinated between work sites. The plan shall describe all non-recurring tasks such as engineering, planning, procurement, and facilities preparation. The plan shall identify the repair procedures, quality control inspections, and test and commissioning tasks.

The schedule shall include the anticipated start and finish dates for each task. The schedule shall be provided in the form of a Gantt chart. If at any time during the life of the project, the Contractor determines the planned schedule is not accurate, then the Contractor shall immediately provide the SFMTA with an updated schedule. The schedule shall be provided in its original document software format (PDF format is not acceptable).

Repair Procedures and Sign Off Sheets

The Contractor shall provide a complete set of manufacturing/repair procedures. These shall be the same procedures as supplied to the Contractor's work crew. The procedures shall describe in detail the steps required to repair the LRV. If the Contractor contracts out the remanufacture of any major subassembly to a subcontractor, then the Contractor shall also require the subcontractor to provide manufacturing procedures.

Processes for repair of the car body are to be described in thorough detail, describing any special tools that will be used, such as ultrasound, dye penetrant, X-ray, welding equipment, welding materials, welder's certifications, certified welding procedures, industry welding practices used, etc.

The Contractor shall provide sign-off sheets for each of the procedures. As each of the procedures is completed, the Contractor shall sign and date the sign off sheet confirming the work has been completed.

7. Repair Procedures

As-Built Drawings

The CRB shall include as-built drawings for all repairs which result in an LRV different from the original configuration (e.g., additional frame gussets or doubling plates).

If any major assemblies of a new design to the LRV are installed, the Contractor shall provide detailed part drawings, assembly drawings, schematics, detailed bills of materials, maintenance and repair instructions.

8. *As-Built Drawings*

Indentured Parts Catalog List (IPC List)

A large number of parts will be required to be procured, stored, installed on the LRV and tested in the repair of each LRV. The CRB shall include an IPC list, listing all components which have changed from the original design, and that have been installed on the repaired LRV. The list shall include the part name, part number and quantity. The list shall be provided in hard copy and in a digital format approved by the SFMTA. The list shall be formatted to match the SFMTA's existing Indentured Parts Catalog.

The components of subassemblies shall also be included in the IPC; however, at a lower indenture level than the top level and only new non-original components need be included at these lower levels. For example, if the Contractor contracts out the overhaul of a major subassembly to a subcontractor, then the subcontractor shall provide an IPC of non-original components installed on the subassembly. The Contractor will then incorporate the subassembly's IPC into the overall IPC.

The IPC shall be structured the same way as the existing SFMTA LRV Indentured Parts Catalogue in its final organization. This document shall be provided upon request..

For replacement components that are not of the same make and model of the original component, the Contractor shall also supply the manufacturer's part number and part description.

Vendor's Data

The Contractor shall provide contact information for all subcontractors and suppliers for non-original replacement components. As applicable, the Contractor shall provide sub-suppliers' component and materials MSDS sheets, catalog cuts, spec sheets, vendor drawings, wiring diagrams, etc., sufficient so that the SFMTA will be able to properly use and maintain the component.

10. Component Vendor's Data:

Maintenance Instructions and Operations Training

For any modification to the repaired LRV from its original configuration or for any part substitution to the repaired LRV performed by the Contractor or sub-contractor that requires periodic maintenance or special repair procedures, the Contractor shall provide detailed maintenance instructions in the CRB sufficient so that the components can be properly maintained by the SFMTA.

For any modification that requires that the repaired LRV be operated in any way different from the original operating procedure, the Contractor shall provide Operator's training manuals, training course and matching video course.

All documentation provided shall be consistent with the SFMTA's existing format. provided by AnsaldoBreda for the original LRV Procurement Project.

11. Maintenance Instructions and Training

Quality Assurance/Quality Control Plan and Reports

The Contractor shall provide a Quality Assurance/Quality Control (QA/QC) Plan. The plan shall describe the Contractor's quality control processes, material review procedures, and quality Control inspection and test processes. The plan shall be submitted to the SFMTA for approval.

The plan shall allow the SFMTA's representitive to perform his/her own inspections at any time during the manufacturing process to verify that the work is being performed in accordance with the Technical Specifications.

The plan shall include inspection points in which the work up to that point is inspected and determined to meet the QA/QC criteria or is otherwise dispositioned by the Engineer before any additional work shall continue.

As each QA/QC Inspection is completed, the Contractor shall provide a signed and dated report documenting the results of the inspection.

The SFMTA reserves the right to witness any or all of the inspections. The Contractor shall provide the SFMTA with copies of all inspection records.

- 12. Quality Assurance/Quality Control Plan(QA/QCP)
- 13. Quality Control Reports ((QA/QCP)

Welders' Certificates

The Contractor shall provide copies of the certificates for any personnel performing welding on the LRV prior to start of work. Welders shall be AWS D1.1 certified and have additional experience with stainless steel. Alternate certifications may be submitted for SFMTA review and approval.

14. Welders' Certificates

LRV Shipment and Storage

Shipment and Contractor Taking Possession of the LRV(s)

The Contractor is responsible for all shipments of each LRV from the point the Contractor takes possession of the LRV at the SFMTA's facility until the SFMTA's accepts each repaired LRV after its return to the SFMTA's facility.

After NTP, the Contractor will be required to remove the LRVs from the SFMTA facility, at Contractor's expense and at the discretion of the SFMTA, up to eight (8) damaged LRVs within a period of 8 weeks. SFMTA will position each LRV at the base of the Car ramp on 18-Track at the SFMTA's Metro Green maintenance facility for pick-up by the Contractor.

Upon arrival to the Contractor's facility, all LRVs must be stored indoors for the duration of the project.

The Contractor shall also provide shipping to and from the SFMTA for all spare and salvaged parts. The Contractor is responsible for all loss or damage to LRVs or parts during the shipments.

Upon completion of repairs at the Contractor's facility, each Car will be shipped back to SFMTA at the Contractor's expense. The Contractor is responsible for unloading the LRV to the base of the ramp. Each repaired LRV shall be delivered to the SFMTA in a clean condition, inside and out.

Pre-Shipment Inspection and Inventory

The Contractor and SFMTA shall jointly conduct a pre-shipment inspection and inventory to determine the condition and completeness of each LRV prior to it being loaded onto for shipment to the Contractor's facility. The Contractor shall prepare an inspection and inventory report and include it in the CRB.

15. Pre-Shipment Inspection and Inventory Report

Contractor Facility

The Contractor's facilities must be of sufficient size to store indoors and work on up eight (8) SFMTA LRVs. The Contractor shall provide suitable and functional office space for an SFMTA inspector.

Parts Store Room

The Contractor shall provide a dedicated storage area for parts indoors and isolated from any other projects the Contractor may be working on. The storage area shall be secure and controlled.

LRV Disassembly

All components removed from the LRV are to be cleaned, inspected, tagged and cataloged.

Component tags shall have the date the part was removed, the LRV number the part was removed from and the part number.

Components that are to be reused are to be stored in the parts area dedicated to the project.

Components not reused but deemed salvageable by the Engineer are to be returned to the SFMTA Green Light Rail Facility at 2200 San Jose Ave.

Components that are to be disposed of are to be disposed of in accordance with all applicable laws and regulations.

Component Inspection Reports

After each LRV is disassembled, the Contractor shall inspect the components and carbody and provide a Component Inspection Report. The report shall catalog the items removed and show the item's storage location or whether the item was salvaged or disposed.

16. Component Inspection Reports.

Missing Parts

The Contractor is responsible to provide, install and replace all missing parts on the LRV except as provided in Section 1.5. The SFMTA will consider providing additional parts from SFMTA's storeroom on an individual component basis if the Contractor specifically requests the needed part and if available in SFMTA stores. If the SFMTA decides to provide the Contractor with the component, the SFMTA shall require the Contractor to credit back the SFMTA with the value of the component.

Substitute Components

The Contractor shall make a good-faith effort to procure original-type components for all missing or damaged components. For components that the Contractor is unable to replace with original-type components, the Contractor shall propose a suitable alternate component to the SFMTA for approval.

All alternate parts must meet the original requirement of the LRV Technical Specifications of Contract Proposal #309.

17. Substitute Parts List

Carbody

Carbody Inspection Report

After the LRV has been stripped, the Contractor shall inspect the revealed Carbody, including the sub structure, frame, ducts, channels, and equipment boxes, and provide a comprehensive report describing the scope of the damage and each item of damage found. The Contractor shall continue exposing the structure until no damage is found.

18. Carbody Inspection Report.

Carbody Structure Repair Plan & Procedure

For each damaged LRV, the Contractor shall provide a carbody repair plan and procedure to repair the damage described in the Carbody Inspection Report. The plan will describe the scope, procedures, list the materials, and reference the applicable engineering documents to return the carbody to the original manufacturer's specification for carbody geometry, structural integrity, sheathing flatness, design tolerances, and general fit and finish. The repairs shall meet the factory original water-tightness, fire resistance and cosmetic appearance.

The repair plan will include the addition of any modifications performed by the Contractor such as added gussets or doubling plates.

Any additional weight beyond the original configuration added to the LRV because of the repairs shall be kept to a minimum. The Contractor shall obtain the approval of the SFMTA before repairs are made adding weight to the LRV.

The Contractor will be required to provide the necessary certifications and inspection data by AWS-approved welders and inspectors to ensure the conformance of the appropriate weld schedules.

19. Carbody Repair Plan.

Repaired Carbody Inspection Report

The Contractor will make repairs in accordance with the approved Carbody Repair Plan. The repaired carbody will be inspected to ensure that the Carbody Repair Plan has been followed.

In the CRB, the Contractor shall provide a Repaired Carbody Inspection Report based on the findings of the repaired carbody inspection.

20. Repaired Carbody Inspection Report.

Paint and Decals

Damaged interior and exterior surfaces are to be painted and decaled in accordance with the drawings and Technical Specifications of AnsaldoBreda Contract # 309.

Plastic body filler thickness shall be limited to a maximum of 1/8".

Catalyzed paint colors shall be as listed below or a chemically compatible paint system if approved by the Engineer:

· Charcoal: PPG DUHS # 35155

• Red: PPG DUHS # 916SP (73857)

· Silver: PPG DUHS # 9161SP (37464)

· Light Gray: PPG DUHS # 9163SP (37465)

· Clear Coat: PPG Urethane DCU 2070

Paint shall be applied per the manufacturer's instructions. The carbody finish shall be glossy and free of flaws, runs, and sags or orange peel texture.

Replacement decals are to be applied per the drawings and specifications of Contract # 309 plus a clear laminate overlay to protect from graffiti.

Scotchgard 1004 anti-etch material shall be applied on all of the passenger area interior glass.

The finished paint scheme shall match and be blended with the areas of the LRV not being repainted.

The paint shall pass an adhesion test to be included in the Quality Control Report.

21. Paint Adhesion Test

Wiring and Electrical Devices

Electrical Design Criteria

Wire sizes, insulation requirements, materials, shielding methods, routing, and identification of wire and cable shall match the original AnsaldoBreda scheme.

Application and Installation

All wiring shall be performed by experienced personnel using appropriate tools for stripping insulation, cutting, soldering, and attaching mechanical crimp-type terminals with the correct dies. All wiring shall be bundled and routed per the original AnsaldoBreda design.

Sufficient slack shall be provided to allow a service loop for 3 reworks. 10 percent spare wires shall be provided within all new wiring installations.

Cable Connectors

All cable connectors shall be the same as used in the original AnsaldoBreda design or equivalent if approved by the SFMTA.

Undercar Wiring Installation

All undercar raceways and wire ducts shall match the design and application methods of the original AnsaldoBreda design. Wire ducts and conduits shall be of waterproof construction.

Sufficient slack and wire length shall be provided to prevent breaking or pulling out of bushings or terminals and to allow for a service loop for three reworks. Drip loops shall be provided.

All cable sheathing and protective jackets shall be replaced with the materials originally used by AnsaldoBreda or equivalent materials if approved by SFMTA.

Splicing and Tapping

Wire splicing and tapping will not be accepted by SFMTA as an appropriate method of repair. All wires that have been cut or otherwise damaged will need to be rerun between terminal ends.

Devices

All components, relays, contactors, switches, indicators, circuit breakers, terminal strips, and any other equipment requiring replacement shall be of the same OEM and model as used in the original AnsaldoBreda design unless approved by the Engineer.

LRV Reassembly

All missing or damaged components, such as propulsion components, braking components, truck components, electrical components, couplers, pantograph, flooring, paneling, seating, glass, console equipment, etc, which are required to make the LRV complete with good fit and finish and fully functional, is the responsibility of the Contractor.

The Contractor shall demonstrate through testing that the LRV and all LRV subsystems except those described in "Non AnsaldoBreda Components" function properly.

Non AnsaldoBreda Components

The Contractor is not responsible for replacing the ATCS, fare-boxes, radios, Next-Bus, TransLink equipment, or the Silent Alarm switch; however, the Contractor is responsible to ensure that the AnsaldoBreda-installed electrical power and mounting provisions for this equipment are in place and are functional.

Contractual Fleet Modifications

The Contractor shall be responsible to complete contractual fleet modifications which were approved after an LRV was damaged, and ensure through testing that the modifications operate correctly. These modifications may include installations of the EBALD system, the CB90 modification, the installation of the ADA door chimes, the installation/upgrade of the video surveillance system, the installation of the 3rd brake control unit with associated piping changes, and other modifications.

Acceptance of Repaired LRVs

Test and Commissioning Plan and Reports

The Contractor shall provide a plan to test and commission the repaired LRVs. The plan shall include procedures to verify if each of the repaired sub-systems meets the performance requirements of the original LRV Technical Specifications.

The Test and Commissioning Plan shall include sections for testing at the Contractor's facility and at the SFMTA's facility once the LRV has been returned to the SFMTA.

The Contractor shall provide reports documenting the results of each test and commissioning procedure. The Contractor shall sign and date each test report upon completion.

At a minimum, the following general items shall be tested before an LRV is shipped from the Contractor's facility:

- *Wiring continuity tests
- *Carbody water-tightness test
- *Pneumatic capacity and leakage
- *Functional operation of sub-systems at 600 VDC
- *Functional operation of sub-systems at 36 VDC
- *Inspection of new welds

The tests shall be used to establish the integrity of the repaired LRV and its components.

Test reports shall be provided that summarize results, analysis, and corrective actions. Reports shall include photos, charts, and additional test data as needed.

Inspection of new chassis and frame welds shall include some form of non-destructive test such as ultrasound, dye penetrant, or magnetic particle. Inspections shall be performed by a certified weld inspector. The Contractor shall provide certification paperwork for all welders and weld inspectors.

- 22. Test and Commission Plan
- 23. Test and Commissioning Reports

Pre-Delivery Testing

The Contractor shall be responsible for managing and conducting pre-delivery tests at their facility. The SFMTA reserves the right to be present for all testing activities. The Contractor shall notify the SFMTA representative 10 business days in advance of testing activities. The testing shall be conducted per the Test and Commissioning Plan. Tests shall be performed by personnel with appropriate technical experience.

Equipment that does not pass the tests is subject to non-acceptance. The Contractor is obligated to correct any discrepancies and re-run the tests until they are successfully completed before delivery to SFMTA.

Post-Delivery Testing

Each Repaired LRV will undergo commission testing per the Test and Commissioning Plan upon arrival at the SFMTA.

Along with the commission testing, the SFMTA may run the Car for up to a 1000-mile burn-in period. The SFMTA will then issue a notification of acceptance or non-acceptance.

The SFMTA may reset the burn-in mileage if a defect occurs that is related to equipment installed or repaired by the Contractor. If a repaired LRV fails a commissioning test or a defect occurs during the burn-in period, it will not be accepted until any and all deficiencies have been corrected and the LRV has been successfully retested.

The **Contractor** is encouraged to provide an on-site representative to participate during the burn-in and acceptance tests.

END OF SPECIFICATIONS

To: Nathaniel P. Ford Sr.

Executive Director/CEO

Thru: Carter R. Rohan, R.A.

Senior Director

Transportation Planning and Development

Thru: John Sadorra

Manager

Capital Assets and Constructability

From: Elson Hao

Principal Engineer

SUBJECT: Sole Source Waiver Request for the Restoration of Eight Accident Damaged Light Rail Vehicles

This memorandum requests your approval of a sole source waiver to restore eight accident damaged Light Rail Vehicles (1407, 1428, 1429, 1433, 1435, 1499, 1500, 1541) to their original configuration using the original equipment manufacturer or OEM, AnsaldoBreda Inc. The estimated cost to restore the vehicles is \$20,000,000. The scope of work includes the transportation, restoration of damaged structural components to their original configuration, supply and installation of all missing electrical, mechanical and body panel components, and vehicle testing to service ready condition. A sole source waiver is requested because:

- 1. The structural damage is so extensive that only the original manufacturer who has access to the original assembly fixtures would be able restore the structural frame of the vehicles to their original design configuration.
- 2. Many of the vehicles' body panels that were removed from the vehicle and used for spare parts for other vehicles can only be obtained from the original vehicle manufacturer.

Background

The SFMTA currently has ten accident-damaged LRVs. Two are considered lightly damaged (1451, 1502) while eight are considered to have heavily damaged car frames (1407, 1428, 1429, 1433, 1435, 1499, 1500, 1541). The amount of parts removed from many of these vehicles is extensive. In order to restore these vehicles to their original operating condition, these eight vehicles must be repaired by the OEM.

Sole Source Justification

When the LRVs were manufactured, the OEM used an assembly fixture to align the positions of the structural frames relative to each other. See Figure No. 1 below.



 $\begin{tabular}{ll} Figure No. \ 1-SFMTA \ Breda \ Car \ underbody \ structure \ being \ assembled \ using \ the \ assembly \ fixture \end{tabular}$

The OEM also provided alignment marks in the body bolster, the draft gear plate and corner frames of the carbody. A carbody repair vendor will need these alignment marks to align the various undercar frames relative to each other. However, due to the nature of the accidents, the alignment marks have shifted and can no longer be used for reference to properly align the structural frames of the vehicle. Proper alignment of the structural frames is critical for the trouble-free operation of the other systems in the car such as the doors and steps, the truck bolsters and the articulation joint. If the car is not rebuilt completely within the original design tolerances, carbody mating components like the doors and moving steps can easily go out of alignment. When this occurs, the car then becomes a maintenance problem (known as a "repeater") and will experience a disproportionate number of service problems.

The eight LRVs that sustained extensive damage will require the use of the original assembly fixture in order to repair these vehicles with the proper alignment of the structural frames. Only the original manufacturer, AnsaldoBreda, has access to the original assembly fixtures.

Other manufacturers may claim that they can also build fixtures to fix the damaged vehicles. However, without the design of the original assembly fixtures, and given the absence of the alignment marks, it would be nearly impossible for another car builder to manufacture the original assembly fixture.

In 1999, LRVs 1407 & 1414 were repaired by AnsaldoBreda using the original assembly fixtures. The picture below that was taken from inside the Breda facility shows an alignment fixture being used by AnsaldoBreda staff to re-align the 1407. Note that the car has been completely disassembled.



Figure No. 2 – LRV No. 1407 being aligned using an alignment fixture

Missing Parts

Many of the components have been removed from the LRVs. The components that were removed from the LRVs include electrical and mechanical components, interior panels, and wiring. All these components that we removed need to be replaced. Many of the missing components such as the roof ceiling covering assembly, operator's cab dividing wall, operator's console can only be purchased through the original LRV manufacturer, AnsaldoBreda.

The pictures below show that the entire operator's cab is missing, as well as the instrument and body panels. All these panels are manufactured and available only from Breda. In addition to the panels, electrical components and wiring harnesses missing. Without the original design, another vendor would have to reverse engineer these electrical components and wiring harnesses or purchase these components from AnsaldoBreda, increasing the cost of the repair and delaying the repair schedule.



Figure 3 – Picture of a missing interior cab from LRV 1541



Figure 4 – Picture of missing panels and wiring harness from LRV 1429



Figure 5 – Missing entire operator cab and panels from LRV 1500

Recommendations

Sole Source contracts are generally discouraged and are not to be used without serious consideration.

In the case of the two lightly damaged LRVs which did not suffer major structural damage, the staff is reasonably confident that they can be adequately repaired by any well qualified company and the staff is proceeding with the normal competitive process for these repairs.

However, the staff is not confident that the eight heavily damaged LRVs can be adequately repaired by anyone other than the original manufacturer, AnsaldoBreda. In addition, many of the required components and parts are available only from AnsaldoBreda. The staff therefore requests that a sole source procurement contract be used to accomplish these restorations.

Date	
	Date