# SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

**DIVISION:** Finance & Information Technology

**BRIEF DESCRIPTION:** Rescinding the prior decision to implement a Peak Hour Express Route Premium Monthly Pass and a Cable Car Premium Monthly Pass.

#### **SUMMARY:**

- On February 26, 2010, the SFMTA Board of Directors approved the establishment of a Peak Hour Express Route Premium Monthly Pass and Cable Car Premium Monthly Pass which would have generated \$1.8 million annually and was part of a package of measures to address the FY 2009-2010 Amended Operating Budget deficit.
- On March 22, 2010, the Governor signed two bills related to a gas tax swap formula which is expected to provide \$35.9M for FY 2010-2011 and \$31.4M for FY 2012 under State Transit Assistance (STA).
- The Board of Directors at their March 30, 2010 meeting decided to rescind their prior decision to implement a Peak Hour Express Route Premium Monthly Pass and a Cable Car Premium Monthly Pass as a result of the STA funding.

## **ENCLOSURES:**

1. SFMTAB Resolution

APPROVALS:	DATE
DIRECTOR OF DIVISION PREPARING ITEM	
FINANCE	
EXECUTIVE DIRECTOR/CEO	
SECRETARY	
ADOPTED RESOLUTION BE RETURNED TO Sonali	Bose
ASSIGNED SEMTAR CALENDAR DATE:	

## **PURPOSE**

Rescinding the prior decision to implement a Peak Hour Express Route Premium Monthly Pass and a Cable Car Premium Monthly Pass.

## **GOAL**

Approval of the proposed resolution will support: Strategic Plan Goals

 Goal 3: External Affairs/Community Relations-to improve the customer experience, community value and enhance the image of the SFMTA

### DESCRIPTION

At the February 26, 2010 meeting, the SFMTA Board of Directors approved the establishment of a Peak Hour Express Route Premium Monthly Pass and Cable Car Premium Monthly Pass as part of a package of measures to address the FY 2009-2010 Amended Operating Budget deficit.

On March 22, 2010, State Transit Assistance funding (STA) became available to the SFMTA. At the March 30, 2010 Board meeting, the SFMTA Board of Directors agreed to rescind their decision regarding implementing a new Peak Hour Express Route Premium Monthly Pass and Cable Car Premium Monthly Pass.

Additionally, on March 30, 2010, the Board of Supervisors rejected the implementation of the Peak Hour Express Route Premium Monthly Pass and Cable Car Premium Monthly Pass.

### ALTERNATIVES CONSIDERED

The SFMTA Board has considered and is considering several options to address the FY 2009-2010 Amended Operating Budget deficit.

## **FUNDING IMPACT**

The annual impact of the Peak Hour Express Route Premium Monthly Pass and Cable Car Premium Monthly Pass was projected to be \$1.8 million, but this amount will be offset by the STA funding.

### RECOMMENDATION

It is recommended that the SFMTA Board of Directors rescind their decision on February 26, 2010 to implement a Express Route Premium Monthly Pass and a Cable Car Premium Monthly Pass as agreed to during the March 30, 2010 Board meeting.

# SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

RESOLUTION No.	
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WHEREAS, On February 26, 2010, the SFMTA establishment of an Peak Hour Express Route Premium Monthly Pass as part of a package of measures to address Budget deficit; and	n Monthly Pass and Cable Car Premium
WHEREAS, The State of California subsequent help to address the deficit; and	tly provided funding to the SFMTA that will
WHEREAS, The SFMTA Board of Directors a Hour Express Route Premium Monthly Pass and Cable 2010 Board meeting; and	-
WHEREAS, The Board of Supervisors rejected Route Premium Monthly Pass and Cable Car Premium now, therefore, be it	
RESOLVED, That the SFMTA Board of Direct Hour Express Route Premium Monthly Pass and Cable	tors rescinds their decision to implement a Peak Car Premium Monthly Pass.
I certify that the foregoing resolution was adopted by the Directors at their meeting of	ne Municipal Transportation Agency Board of
	ary to the Board of Directors rancisco Municipal Transportation Agency

### THIS PRINT COVERS CALENDAR ITEM NO.:

# SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

**DIVISION:** Capital Programs and Construction

## **BRIEF DESCRIPTION:**

Requesting authorization for the Executive Director/CEO to execute Amendment One to Contract No. APT 591-01 - LRV Doors and Steps Reconditioning and Systems Rehabilitation, with AnsaldoBreda Inc., to perform a complete rehabilitation of the trucks of 34 LRVs for \$11,996,867, for a total contract amount not to exceed \$68,749,421, and extend the term of the contract from five years to six years.

## **SUMMARY:**

- On May 6, 2009, the SFMTA issued a Request for Proposals (RFP) for Contract No. APT 591-01, LRV Doors and Steps Reconditioning and System Rehabilitation (the "Contract"), which project was funded with grants through the American Recovery and Reinvestment Act (ARRA).
- Only AnsaldoBreda Inc. (AnsaldoBreda), the manufacturer of the LRVs, responded to the RFP.
- On September 15, 2009, the SFMTA Board of Directors adopted Resolution No. 09-173, which authorized the Executive Director/CEO to execute the Contract with AnsaldoBreda Inc. for a total amount not to exceed \$56,752,554, and for a term not to exceed five years.
- On March 5, 2010 SFMTA received \$12.1 million in redirected ARRA funds to partially fund the LRV Truck Rehabilitation Project.
- Staff negotiated an amendment to the Contract to perform truck rehabilitation work on 34 vehicles for \$11,996,867, for a total contract amount not to exceed \$68,749,421.
- Staff recommends that the most expedient and cost effective way of implementing the Truck Rehabilitation project is to include this project in the existing Contract with AnsaldoBreda.

# **ENCLOSURES:**

- 1. SFMTA Board Resolution
- 2. Contract Modification

APPROVALS:		DATE	
DIRECTOR OF DIVISION PREPARING ITEM			
FINANCE			
EXECUTIVE DIRECTOR/CEC	)		
SECRETARY		_	
ADOPTED RESOLUTION BE RETURNED TO	Elson Hao – 700 Pennsylvania, B200		
ASSIGNED SEMTAR CALENDAR DATE:			

### **PURPOSE:**

The purpose of this calendar item is to request authorization for the Executive Director/CEO to execute Amendment One to the Contract with AnsaldoBreda, to perform a complete rehabilitation of the motored and non-motored trucks of 34 vehicles in the LRV fleet. The rehabilitation of the trucks will improve the vehicles' reliability and improve the availability of the LRV fleet.

## **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

## **BACKGROUND:**

On May 6, 2009, the SFMTA issued an RFP for the Contract. The project was funded partially with ARRA grants, Only AnsaldoBreda, the manufacturer of SFMTA's LRV fleet responded to the RFP.

On September 15, 2009, the SFMTA Board of Directors adopted Resolution No. 09-173, which authorized the Executive Director/CEO to execute the Contract with AnsaldoBreda, for a total amount not to exceed \$56,752,554, and for a term not to exceed five years. On October 29, 2009, the Board of Supervisors adopted Resolution No. 403-09, approving the Contract.

Work has begun on the project in AnsaldoBreda's facility in Pittsburg, California.

Recently, the FTA made available to the SFMTA \$12.1 million of ARRA grant funds, diverted from the Oakland Airport Connector project. The SFMTA had previously submitted the Truck Rehabilitation Project as one of the projects it wishes to perform with ARRA funds. The availability of the new allotment of ARRA grants will allow the SFMTA to partially fund the Truck Rehabilitation Project.

### **DESCRIPTION OF WORK:**

The SFMTA operates a fleet of 151 light rail vehicles that were manufactured by AnsaldoBreda. These LRVs were phased into service starting 1997. The LRVs have travelled from 200,000 to 400,000 miles since entering revenue service.

Each LRV is equipped with three trucks (two motor trucks and one trailer truck). The trucks, equipped with suspension systems, support the vehicle loads and provide a comfortable ride for passengers. The two motor trucks, which contain traction motor units, are located under each of the vehicle sections and the trailer truck is located under the articulation section.

The AnsaldoBreda overhaul manual recommends scheduled replacement or overhaul of the major components of the trucks every 200,000 or 400,000 miles depending on the component. The Truck Rehabilitation Project will enable the SFMTA to perform the scheduled replacement or overhaul of truck components in 34 vehicles in accordance with the recommendations of the manufacturer.

Depending on the component or sub-assembly of the truck, the Contractor shall remove, replace in-kind and/or overhaul and re-install the components and sub-assemblies of the LRV trucks as enumerated below:

## A) 100% Replacement

- 1. Journal axle bearings
- 2. Shock absorbers
- 3. Grounding cables
- 4. Primary suspension (latest configuration)
- 5. Secondary suspension (air bags)
- 6. Brake caliper suspension bushings
- 7. Pilot bar/antenna bar mounts (latest configuration)
- 8. Leveling valve and hardware
- 9. Air hoses (Knorr)
- 10. Knorr test fittings (cut-out cock)
- 11. Wiring harnesses
- 12. Traction rod rubber element
- 13. Flexible pads (GE)
- 14. Connecting rod rubber elements GE
- 15. Miscellaneous rubber components
- 16. Lateral bump stop
- 17. Slewing Ring
- 18. Lubrication
- 19. Truck cleaning and waste disposal

## B) As- Needed Replacement (estimated percentage of parts to be replaced)

- 1. Steel tires, rubber isolators and shunts (50%)
- 2. Ground brush assemblies (10%)
- 3. Gear unit coupling (both halves and sleeves) (35%)
- 4. Antenna receiver/transmitter (Alcatel) (10%)
- 5. Tachometers (10%)
- 6. Brake disc (15%)
- 7. Drive axles (10%)
- 8. Idler axles (10%)
- 9. Aluminum wheel centers (10%)
- 10. Miscellaneous hardware replacement (35%)
- 11. Air tanks (2%)
- 12. Air fittings and piping (25%)

## C) Overhaul of Assemblies

- 1. Motors (power truck)
- 2. Gear units and coupling (power truck)
- 3. S AV valves
- 4. Brake calipers
- 5. Track brakes springs and guides

## **ALTERNATIVES CONSIDERED:**

Two alternatives were considered. First, the SFMTA considered issuing a new RFP to rehabilitate the trucks. However, since AnsaldoBreda was the only proposer for the LRV Doors and Steps contract, the company would likely be the sole proposer if a new RFP were issued. Moreover the trucks will already be in AnsaldoBreda's facility, removed from the vehicles and partially disassembled. Issuing a new RFP, even if another proposer were to bid on the contract, would result in the SFMTA incurring substantial duplication of costs and unacceptable delays in implementing the project and returning the LRVs to revenue service. Moreover, expenditure of funds in issuing a new RFP would decrease the number of trucks that could be rehabilitated. Because of these inefficiencies and the likelihood of no competition, the SFMTA was able to justify a sole source procurement of this work under federal guidelines.

The other alternative was to perform the work in-house; however, performing this amount of overhaul work in-house would take away valuable resources (personnel, parts and materials, facility space) that are needed to perform scheduled preventive maintenance and as-needed repairs to the fleet.

## **FUNDING IMPACT:**

There is no impact to SFMTA's maintenance and operating budget, since this amendment will be funded entirely with ARRA grant funds. However, in order not to forfeit this money, the funds will have to be committed to a project by June 30, 2010.

# OTHER APPROVAL RECEIVED OR STILL REQUIRED:

Since the contract amendment is in excess of \$500,000 and the Board of Supervisors approved the original contract, approval of this amendment is also subject to the Board of Supervisors approval. The City Attorney will sign the amendment as to form after the Board of Supervisors has approved the amendment.

The City Attorney's Office has reviewed this calendar item.

## **RECOMMENDATIONS:**

Staff recommends that the SFMTA Board authorize the Executive Director/CEO to execute Amendment One to Contract No. APT 591-01 - LRV Doors and Steps Reconditioning and Systems Rehabilitation, with AnsaldoBreda Inc., for \$11,996,867, for a total contract amount not to exceed \$68,749,421, and to extend the term of the contract from five years to six years.

# SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY BOARD OF DIRECTORS

RESOLUTION No
WHEREAS, On May 6, 2009, the San Francisco Municipal Transportation Agency ("SFMTA") issued a Request for Proposals (RFP) for Contract No. 591-01, LRV Doors and Steps Reconditioning and System Rehabilitation (the "Contract"), which project was funded partially with grants through the American Recovery and Reinvestment Act ("ARRA"); and
WHEREAS, Only AnsaldBreda Inc. (AnsaldoBreda), the manufacturer of SFMTA's light rail vehicle fleet ("LRVs"), responded to the RFP; and
WHEREAS, On September 15, 2009, the SFMTA Board of Directors adopted Resolution No. 09-173, which authorized the Executive Director/CEO to execute the Contract with AnsaldoBreda, for a total amount not to exceed \$56,752,554, and for a term not to exceed five years; and
WHEREAS, On October 29, 1009, the Board of Supervisors adopted Resolution No. 403-09, approving the Contract; and,
WHEREAS, On March 5, 2010, the SFMTA received \$12.1 million in redirected ARRA funds to partially fund the SFMTA's Truck Rehabilitation Project; and
WHEREAS, Staff recommends that the most expedient and cost effective way of implementing a portion of the Truck Rehabilitation Project is to amend the Contract with AnsaldoBreda to include this work and has justified a sole source procurement of this work under federal guidelines; and
WHEREAS, SFMTA staff negotiated with AnsaldoBreda to perform the truck rehabilitation work on 34 vehicles for a total cost of \$11,996,867; and
WHEREAS, SFMTA has conducted a cost analysis and determined that the negotiated amount is fair and reasonable; now, therefore be it
RESOLVED, That the SFMTA Board of Directors authorizes the Executive Director/CEO to execute Amendment One to Contract No. APT 591-01 - LRV Doors and Steps Reconditioning and Systems Rehabilitation, with AnsaldoBreda, to perform a complete rehabilitation of the trucks of 34 LRVs for \$11,996,867 for a total contract amount not to exceed \$68,749,421, and to extend the term of the contract from five years to six years; and be it further
RESOLVED, That the SFMTA Board of Directors recommends that the Board of Supervisors approve Amendment One to the Contract.
I certify that the foregoing resolution was adopted by the Municipal Transportation Agency Board of Directors at its meeting of

Secretary to the Board of Directors San Francisco Municipal Transportation Agency

# City and County of San Francisco Municipal Transportation Agency One South Van Ness 7<sup>th</sup> Floor San Francisco, California 94107

# Amendment One to Agreement between the City and County of San Francisco and AnsaldoBreda Inc.

## LRV Doors and Steps Reconditioning and Systems Rehabilitation

This Amendment is made this	day of	. 2010, in the City and
County of San Francisco, State of Cali		
corporation ("Contractor"), and the Cit	ty and County of San F	rancisco, a municipal corporation
("City"), acting by and through its San	Francisco Municipal 7	Transportation Agency ("SFMTA")
(collectively, the "Parties").		
	Recitals	

- **A.** On or about October 29, 2009, City and Contractor entered into Contract No. APT 591-01 for reconditioning the doors and steps and rehabilitating systems in 143 of SFMTA's light rail vehicles ("Contract" or "Agreement").
- **B.** The Parties wish to amend the Contract to incorporate rehabilitation of the trucks of 34 LRVs and extend the term of the Contract by one year, as well as to correct errata and make several administrative changes to the Contract.

NOW, THEREFORE, Contractor and the City agree as follows:

## 1. The Definitions section of the Agreement is deleted and replaced with the following:

### **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 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 RFP, Technical Specifications, all Conformed Contract Documents, Contractor's Proposal, the Contract bonds or other security, and all supplemental agreements entered into.

<u>Contract Modification</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.

<u>Contractor; Consultant</u>: The Proposer to whom award is made.

<u>Controller</u>: 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>: Patent or latent malfunctions or failure in manufacture or design of any component or subsystem.

<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 Resident Engineer assigned to the Contract or designated agent.

<u>LRV or Vehicle</u>: A light rail vehicle subject to repair under this 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>Proposal</u>: The technical and management information and prices submitted in response to the Request for Proposals.

Request for Proposals; RFP: The Request for Proposals issued by the SFMTA on May 6, 2009, for LRV Doors, Steps and Systems Rehabilitation.

<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 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.

<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.

<u>Work Program</u>: The plan submitted by Contractor to correct a declared Fleet Defect in all LRVs that have not experienced the Defect.

## 2. Section 2 of Agreement (Term of the Agreement) is amended to read as follows:

2. Subject to Section 1, this Agreement shall commence on the Effective Date and terminate six years thereafter.

## 3. Section 5 (Compensation) is deleted and replaced with the following:

## 5. Compensation

- 5.1 **Amount of Contract**. In no event shall the amount of this Agreement exceed Sixty-Eight Million, Seven Hundred Forty-Nine Thousand, Four Hundred Twenty-One Dollars (\$68,749,421)
- 5.2 **Price Breakdown**. The breakdown of costs associated with this Agreement appears in the Price Schedule (Exhibit C) and Payment Schedule (Exhibit D), incorporated by reference as though fully set forth herein. The unit prices in Exhibit C represent the costs for each Vehicle if the Vehicle requires the entire scope of Work listed in Item Nos. 1.1 through 1.6. However, if after inspection of a Vehicle pursuant to Section TP10.03 of the Technical Specifications and design review under Section 61.4, the SFMTA determines that the Vehicle requires only a portion of the scope of Work in a particular Item No., the unit price of the Item No., and the resultant cost of the Work on each Vehicle, shall be reduced after negotiations with Contractor.
- 5.3 **SFMTA Approval of Work**. 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.

5.4 **No Interest; Price Adjustments**. 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.

## 4. Section 15.1(d) is amended to read as follows:

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, 3rd Floor San Francisco, CA 94103 Attention: Elson Hao

Contract No. APT 591-01 (CCO 09-1076)

## 5. Section 49 (Authority of Engineer) is amended to read as follows:

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 55 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.

# 6. Sections 55.2 (Resolution of Disputes) and 55.3 (No Cessation of Work) are amended to read as follows:

- 55.2 Resolution of Disputes. Disputes arising in the performance of this Agreement that are not resolved by negotiation between the SFMTA Liaison and 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.
- **55.3 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.

# 7. Subsection (b) (Remedy) of Section 64.7(Fleet Defects) is amended to read as follows:

**(b) Remedy**. The Contractor shall correct a fleet defect under the warranty provisions defined in "Repair Procedures" (Section 65). Within 30 days of receipt of notification of a Fleet Defect, the Contractor shall provide the SFMTA with a Corrective

Action Plan, subject to approval by SFMTA, specifying how and when all LRVs with Defects shall be corrected. No later than 10 days after correcting the Defects, the Contractor shall submit a proposed Work Program reasonably designed to prevent the occurrence of the same Defect in all LRVs remaining to be repaired, and, if applicable, spare parts purchased under this Contract. The Work Program shall specify how and when the corrective work in all remaining LRVs will be performed. If SFMTA requires changes to a Corrective Action Plan or Work Program in order to approve it, Contractor shall submit the revised Plan or Program within five days after SFMTA requests such changes. Where the specific Defect can be solely attributed to particular identifiable part(s), the Work Program shall include redesign and/or replacement of only the defectively designed and/or manufactured part(s). In all other cases, the work program shall include inspection and/or correction of all of the LRVs in the fleet via a mutually agreed to arrangement. Any Contractor-proposed changes to a Fleet Defect Corrective Action Plan or Work Program must be submitted to the SFMTA for approval. If (a) Contractor does not provide a Corrective Action Plan or Work Program within the time specified above (or as extended by SFMTA), or (b) Contractor does not submit revisions to a Corrective Action Plan or Work Program as requested by the SFMTA, or (c) Contractor does not fully correct a specific declared Fleet Defect within the time specified in the Corrective Action Plan or in the Work Program, SFMTA will assess liquidated damages in accordance with Section 19 of this Agreement.

- 8. Exhibit B of the Agreement is deleted and replaced by a new Exhibit B, attached to this Amendment and incorporated by reference as though fully set forth.
- 9. Exhibit C of the Agreement is deleted and replaced by a new Exhibit C, attached to this Amendment and incorporated by reference as though fully set forth.
- 10. Exhibit D of the Agreement is deleted and replaced by a new Exhibit D, attached to this Amendment and incorporated by reference as though fully set forth.
- 11. The Technical Specifications are amended to add Section TP05M1 Truck and Suspension Systems, which is attached to this Amendment and incorporated by reference as though fully set forth.

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

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

Board of Supervisors
Resolution No
Dated:
Attest:
Clerk of the Board

# **EXHIBIT B**

# PROJECT DELIVERY SCHEDULE

# Delivery of 143 Rehabilitated Light Rail Vehicles and Associated Deliverables

DELIVERY MILESTONE	No. of Days	AFTER NTP
a. Acceptance of Management Work Plan, Master Baseline Schedule	+30	30 days
b. Delivery of Pilot LRV ready for acceptance testing no later than	+150	180 days
c. Delivery of successful testing and Conditional Acceptance of the Pilot Car no later than	+30	210 days
d. Completion of successful testing and Conditional Acceptance of Second car	+60	270 days
e. Completion of successful testing and Conditional Acceptance of 143 <sup>rd</sup> car	+1110	1380 days

Milestone requirements detailed in Section 67 of the Contract and in Section TP01.08 of the Technical Provisions.

# EXHIBIT C PRICE SCHEDULE

# FOR SFMTA REHABILITATION OF IDENTIFIED SUBSYSTEMS FOR 143 LRVs

Item No.	Description	Qty.	Unit Price	Total Price
1.	Rehabilitation of Couplers, Truck, Air Supply Units, Doors and Steps, Articulation Wiring and harnesses for 143 LRVs including manuals, CDRLs, Transport of Vehicle to Contractor facility and return to SFMTA facility, Site Support & Warranty*			
1.1	Rehabilitated couplers (electrical and mechanical) complete assembly (A)	143	\$53,500	\$7,650,443
1.2	Rehabilitated doors and steps complete assembly (B)	143	\$203,963	\$29,166,640
1.3	Replacement PSC-2 Wiring Harnesses (C)	143	\$6,860	\$980,980
1.4	Re-designed new articulation wiring and harnesses complete assembly (D)	143	\$37,306	\$5,334,726
1.5	Rehabilitated air supply units complete assembly (E)	143	\$24,003	\$3,432,425
1.6.	Replacement of Center Pins and Traction Motor Bearings (F)	143	\$11,210	\$1,602,991
1.7	Program Management, Engineering, QA Support (G)			\$2,813,410
	Subtotal of Item 1 (A+B+C+	D+E+F+G)		\$50,981,615
2.	Rehabilitate Motored and Non-Motored Trucks (H) of the LRVs	34	\$334,223.18	\$11,363,588.10
3.	Training 35 SFMTA employees and trainers on the operations and maintenance of supplied equipment including training on the use of special tools and software as applicable and manuals (I)	Lump Sum		\$20,000
4.0	Spare Parts For 143 LRVs			
4.1	Rehabilitated couplers (electrical and mechanical)complete assembly (SFMTA will provide cores) (J)	10	\$26,750	\$267,498

# EXHIBIT D PAYMENT SCHEDULE

# 1. Rehabilitation of 143 Light Rail Vehicles

Item No.	Description	Terms
1a.	Approval of Contractor's Management Work Plan and Program CDRL's (Program CDRL's as defined in section TP15 Deliverables Summary)	5% of the amount of Line Item 1 of Price Schedule (30% of the amount to be paid upon delivery of the Work Plan and all CDRLs to SFMTA and 70% to be paid upon approval of the Work Plan and all CDRLs by SFMTA)
1b.	Proof of ordering Major Parts and Assemblies including Couplers, Trucks, Air Supply Units, Doors and Steps, Articulation Wiring and harnesses, (Based on presentation of executed purchase orders)	Not to exceed 25% of the amount of Line Item 1 of Price Schedule
1c.	Delivery of car to Pittsburg	20% of the amount of Line Item 1 of Price Schedule, on a per car basis
1d.	Completion of Pre-Shipment testing, and Release of car for shipment (Based on TP01.08 - Release for shipment Certificate)	20% of the amount of Line Item 1 of Price Schedule, on a per car basis.
1e.	Conditional Acceptance of each Vehicle (per Section 67.2 of Agreement) (Based on TP01.08 - Approval for Revenue Service Certificate)	20% of the amount of Line Item 1 of Price Schedule, on a per car basis.
1f.	Final Acceptance, delivery of all car-based deliverables, closure of all Corrective Actions (Based on Final Acceptance Certificate, per TP01.08)	5% of the amount of Line Item 1 of Price Schedule, on a per car basis.
1g.	Closure of all contract deliverables by SFMTA (Based on Contract Closeout Certificate TP01.08)	5% of the amount of Line Item1 of Price Schedule

# 2. Rehabilitation of Trucks for 34 Light Rail Vehicles

Item	Description	Terms
No.		
2a.	Proof of ordering Major Parts and Assemblies	Not to exceed 30% of the
	(Based on presentation of executed purchase orders)	amount of Line Item 2 of
		Price Schedule

Item	Description	Terms
No.		
2b.	Delivery of car to Pittsburg	20% of the amount of Line
		Item2 of Price Schedule, on a
		per car basis
2c.	Completion of Pre-Shipment testing, and Release of car for	20% of the amount of Line
	shipment	Item 2 of Price Schedule, on
	(Based on TP01.08 - Release for shipment Certificate)	a per car basis
2d.	Conditional Acceptance of each Vehicle (per Section 67.2 of	20% of the amount of Line
	Agreement)	Item 2 of Price Schedule, on
	(Based on TP01.08 - Approval for Revenue Service Certificate)	a per car basis.
2e.	Final Acceptance, delivery of all car-based deliverables, closure of	10% of the amount of Line
	all Corrective Actions	Item 2 of Price Schedule, on
	(Based on Final Acceptance Certificate, per TP01.08)	a per car basis.

# 3. Training

Item	Description	Terms
No.		
3a.	Delivery and Approval of Training Plan	15% of the amount of Line
		Item 3 of Price Schedule
3b.	Completion of all training	80% of the amount of Line
		Item 3 of Price Schedule
3c.	Final acceptance of all contract deliverables	5% of the amount of Line
		Item 3 of Price Schedule

# 4. Spare parts

Spare parts delivered and accepted by SFMTA in San Francisco shall be paid according to the detailed list in Line Item 4 of Price Schedule

NOTE: Payment for the rehabilitation work will occur upon completion of listed items on this Payment Schedule, upon proper receipt of an invoice requesting payment and acceptable completion of all contract terms. Sales taxes shall be reimbursed quarterly based on evidence of payment to the California State Board of Equalization.

# TECHNICAL SPECIFICATIONS (TECHNICAL PROVISIONS)

# **SECTION TP05M1**

# AMENDMENT ONE FOR TRUCKS AND SUSPENSION SYSTEMS

March 10, 2010 Rev. 0

# SECTION TP05M1 TRUCK AND SUSPENSION SYSTEMS

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## TP05M1: TRUCKS AND SUSPENSION SYSTEMS

## TP05M1.01 GENERAL

The work described in this section shall apply only to 34 LRVs and shall be in addition to the work required in Section TP05 – Truck Assemblies of the original Contract.

## TP05M1.02 SCOPE OF WORK

The Contractor shall remove, disassemble, inspect, repair, replace, overhaul, reassemble, test and reinstall the components of the trucks and suspension systems of the LRVs as specified herein. These specifications apply to both motored and non-motored trucks of the LRV.

## TP05M1.03 OVERHAUL REQUIREMENTS

## A. Terminology

Whenever the term "overhaul" is used herein, it shall mean the level of effort designated for a component or assembly, including, but not limited to, cleaning, refinishing, repair, or replacement.

Whenever the term "replace in kind" is used herein, it shall mean replacement with identical OEM parts, or SFMTA-approved equal. The SFMTA is not obligated to accept other than OEM parts, unless the OEM part is obsolete, and may require the Contractor to perform whatever reasonable verification activities as needed in order to demonstrate that the alternative is acceptable based on its being equivalent or superior to the OEM part per Section 1.04.C.1 of these Technical Provisions.

The costs associated with proving that an alternative is equivalent or superior to an OEM part shall be borne by the Contractor.

Whenever the term "replace" is used herein, it shall mean replacement with components compliant with applicable material and workmanship standards. This term is utilized primarily for hardware, where compliance with applicable standards is sufficient to demonstrate equivalence to the OEM part.

Whenever the term "reuse" is used herein, it shall mean disassemble, clean, inspect, verify, refinish and lubricate as needed, reassemble, and reinstall onto the overhauled assemblies; this term reflects estimation that none will require replacement, unless otherwise specified.

## B. Hardware/Fasteners

All hardware and fasteners, including, but not limited to, screws, bolts, nuts, clips, washers, lock-washers, shrink wrap, c-clips, tie straps, shaft-keys, springs, shrinkable





tubing, cotter pins, retaining rings, bushings, roll pins, clips, gaskets, and etc., on, or in, overhauled assemblies, components, or parts, shall be replaced unless identified for reuse herein.

## C. Labels

The Contractor shall apply labels to the truck, gearbox and traction motor to indicate when it was overhauled. The labels shall be of the same type as the OEM labels currently installed on the equipment. The quantity and locations of labels shall be similar to the original labeling arrangement, per the labeling requirement in TP1.07.O of these Technical Specifications.

## D. Overhaul Criteria

The Contractor shall follow the truck repair and overhaul criteria of the San Francisco Muni LRV2 Heavy Repair and Workshop Manual, Section 3 "Trucks and Suspension."

The Contractor shall follow the traction motor overhaul criteria of section 4, "Propulsion and Electronic Controls."

The Contractor shall follow the track brake overhaul criteria of section 16 "Brakes."

# E. Disassembly, Cleaning & Storage

The Contractor shall disassemble the truck and clean all reusable components. Non reusable components shall be properly disposed of.

Parts waiting reassembly shall be tagged and properly stored.

# F. Structural Inspection and Repair

The Contractor shall strip/clean down to clean paint and visually inspect the truck frame, bolster beam, connecting rods, axles and hubs for dimensional accuracy and inspect for cracks. All cracks found shall be documented in the truck history book and repaired as provided below.

The Contractor shall inspect all mating surfaces of the truck frame, threaded attachment points, and permanently affixed brackets for damage. All damage found shall be documented in the truck history book and repaired as provided below.

The Contractor shall notify and obtain SFMTA approval prior to performing any repairs under this Section. Such repairs shall be deemed as extra work under Section 48.2 of the Agreement.

## **TP05M1.04** New Components and/or Assemblies

The Contractor shall remove, replace in-kind, and install the following components or assemblies on all LRVs under Amendment No. One to the Agreement.





## A. 100% Replacement

- 20. Journal axle bearings
- 21. Shock absorbers
- 22. Grounding cables
- 23. Primary suspension (latest configuration)
- 24. Secondary suspension (air bags)
- 25. Brake caliper suspension bushings
- 26. Pilot bar/antenna bar mounts (latest configuration)
- 27. Leveling valve and hardware
- 28. Air hoses (Knorr)
- 29. Knorr test fittings (cut-out cock)
- 30. Wiring harnesses
- 31. Traction rod rubber element
- 32. Flexible pads (GE)
- 33. Connecting rod rubber elements GE
- 34. Miscellaneous rubber components
- 35. Lateral bump stop
- 36. Slewing Ring
- 37. Lubrication
- 38. Truck cleaning and waste disposal

## B. As- Needed Replacement

The Contractor shall remove, replace in-kind, and install the following components and assemblies. The number in parenthesis (##) indicates the quantity of vehicles the components or assemblies of which are estimated to be replaced under this Amendment. If the quantity of components replaced is less that the estimated quantity, Contractor shall deliver the unused quantity to SFMTA, and title to those components shall pass to the SFMTA. If the quantity of components replaced is more than the estimated quantity, the SFMTA will provide those components to the Contractor or compensate Contractor for the additional cost of the components.

- 1. Steel tires, rubber isolators and shunts (50% the steel tires shall be replaced when the diameter is below 26.75 inches)
- 2. Ground brush assemblies (10%)
- 3. Gear unit coupling (both halves and sleeves) (35%)
- 4. Antenna receiver/transmitter (Alcatel) (10%)
- 5. Tachometers (10%)
- 6. Brake disc (15%)
- 7. Drive axles (10%)
- 8. Idler axles (10%)
- 9. Aluminum wheel centers (10%)
- 10. Miscellaneous hardware replacement (35%)
- 11. Air tanks (2%)
- 12. Air fittings and piping (25%)





# **TP05M1.05** Overhauled Components and Assemblies

The Contractor shall remove, overhaul, and reinstall the following truck components and assemblies.

Rebuilt components shall meet the requirements for adjustment and testing of section 3, "Trucks and Suspension," of the LRV2 Heavy Repair and Workshop Manual, except for the traction motors, which shall meet the requirements of section 4, "Propulsion and Electronic Controls," and the track brake, which shall be rebuilt according to section 16 "Brakes."

- A. Motors (power truck)
- B. Gear units and coupling (power truck)
- C. SAV valves
- D. Brake calipers
- E. Track brakes springs and guides

# TP05M1.06 Piping

The Contractor shall clean, inside and out, and reuse piping that is not damaged. The Contractor shall replace damaged piping with new piping.

## TP05M1.07 Paint

The Contractor shall touch-up paint, low gloss black, the truck frame, bolster beam, air tanks, vertical bump stop brackets, pilot/antenna bar brackets, derail alarm sensor bracket, and journal box caps where bare metal is exposed.

# **TP05M1.08** Replacement of Suspension Components

The Contractor shall replace suspension-related components with the identical original replacement component if available or an upgraded version that has been used in existing SFMTA trucks. If the original-type component is not available, the Contractor shall source a substitute part which still meets the suspension requirements of the LRV conformed specification # 309 for leveling, natural frequency, motion damping-ride quality, displacement criteria-body roll, and load weigh adjustment.

## TP05M1.09 Assembly, Installation & Adjustment, and Testing of Equipment

Refer to TP10 Inspection and Testing for the detailed requirements for the test and inspection program, as well as the CDRLs associated with the inspection and testing of the trucks and suspension system.





## A. Assembly

The overhauled equipment shall be assembled using procedures developed in accordance with the HRWM manuals. Assembly procedures shall include any intermediate testing and/or functional verifications required to ensure that the assembled components will function properly. Each assembly shall have sign-off sheets for workers to document that their efforts were conducted in accordance with applicable procedures, and aid in failure and/or quality assurance investigations; pass/fail entries shall be required in the sign-off sheet for all required intermediate tests and/or functional verifications performed by the assembler, including the proper application of torque marks. Multiple components may be included on tabulated sign-off sheets with approval of the Authority. Sign off sheets [CDRL 5-001] shall be submitted for inclusion in the Car History Book.

# B. Installation & Adjustment

The overhauled equipment shall be installed and adjusted using procedures developed in accordance with the HRWM manuals. Each installation shall have sign-off sheets for workers to document that their efforts were conducted in accordance with applicable procedures, and aid in failure and/or quality assurance investigations; pass/fail entries shall be required in the sign-off sheet for all required intermediate tests and/or functional verifications performed by the installer.

# C. Testing

### 1. Pre-Possession Test

The Contractor shall confirm before taking possession of the vehicle that the two Automatic Train Control (ATCS) Receive Antennae, the two ATCS Transmit Antennae, the truck tachometers and the truck caliper brake release switches are functioning by conducting an ATCS Yard Departure Test on the SFMTA's Track 1 at the Green facility. This test shall be Incorporated into the pre-overhaul test procedure and report referenced in TP10 of these Technical Provisions.

SFMTA personnel will operate the LRV during the test, and the Contractor shall conduct the test. All testing activities and documentation shall be compliant with TP10 Inspection and Testing section of these Technical Specifications.

# 2. Acceptance Testing

Upon redelivery of the LRV to the SFMTA, the LRV shall be subject to acceptance tests as required by Section TP10 of these Technical Specifications, including identification of CDRLs. After passing the test, the Contractor shall provide and sign an acceptance test report.





# TP05M1.10 CONTRACT DELIVERABLE REQUIREMENTS LIST

CDRL#	Title	Reference Paragraph
5-001	Sign-off Sheets	TP05M1.11A

**End of Section**