



Board Report

File #: 2018-0485, File Type: Contract

Agenda Number: 26.

OPERATIONS, SAFETY AND CUSTOMER EXPERIENCE COMMITTEE NOVEMBER 15, 2018

SUBJECT: P3010 LIGHT RAIL VEHICLE PROCUREMENT

ACTION: APPROVE CHANGE ORDER

RECOMMENDATION

APPROVE a Modification to Contract No. P3010 with Kinkisharyo International, LLC for Request for Change (RFC) No. 28, Crenshaw Final Cutover Automatic Train Control (ATC) Software Release, for a firm fixed price of \$2,350,680 increasing the total Contract value from \$921,755,722 to \$924,106,402. The contract increase is within the Life of Project Budget.

ISSUE

P3010 Light Rail Vehicles (LRV's) are intended to support service on all Metro's light rail lines, including the Crenshaw/LAX Line. In 2013, when the P3010 design was being finalized, the Crenshaw design was still in development.

For the P3010 vehicles to support service on the new Line it is necessary for the ATC and the Automatic Train Protection (ATP) systems to be upgraded and qualified for compatibility with the Crenshaw/LAX wayside system to ensure safe and reliable operation.

As the RFC amount exceeds Metro's Chief Executive Officer's delegated negotiating authority of \$1,000,000, staff is requesting Board approval for the contract change.

BACKGROUND

In April 2012, Kinkisharyo International, LLC was awarded the P3010 LRV contract for a base order of 78 LRVs. Four options, for an additional 157 LRVs, were subsequently exercised, for a total of 235 vehicles to be delivered. In accordance with Metro's Long Range Transportation Plan, the P3010 LRVs are intended to support service on all Metro's light rail lines, including the Crenshaw/LAX Line.

DISCUSSION

P3010 vehicles are currently not compatible with the wayside signaling system being implemented on

the Crenshaw/LAX Line. In 2013, when the P3010 design was being finalized, information was not available to ensure compatibility of the P3010 LRVs with the Crenshaw/LAX Line as the Crenshaw design was still in development. For the P3010 vehicles to support service on the new line, it is necessary to upgrade the ATC and the ATP systems to ensure safe and reliable operation.

Approval of this Change Order is necessary for Kinkisharyo to work with its signaling system supplier, Ansaldo-STC, to design and deliver new ATC/ATP software and then qualify the new software in the field before it is installed on the P3010 Base Order and Option order vehicles.

Successful implementation of this upgrade will ensure compliance with Metro's Long Range Transportation Plan, and ensure safe and reliable operation on existing lines and the new Crenshaw/LAX Line. It will ensure a consistent fleet configuration to preserve enhanced levels of vehicle performance and passenger experience. Application of the change will have no impact to current project schedule and is within the remaining contingency of the Life of Project budget.

DETERMINATION OF SAFETY IMPACT

This board action will ensure that safety is preserved by equipping the vehicles with the latest safety related software releases. Without application of these software upgrades, the vehicles will have to operate in degraded mode which can compromise service.

FINANCIAL IMPACT

Adoption of the recommendation to approve the subject RFC will increase the Contract price by \$2,350,680 from \$921,755,722 to \$924,106,402. This amount is within the project LOP of \$972,000,000. Funding for the change will be reflected in the FY19 budget in Cost Center 3043 - Strategic Vehicle and Infrastructure Delivery, Account 53105 - Acquisition of Revenue Vehicle, Project 206035 - P3010 LRV Project including options.

Since this is a multi-year contract, the Cost Center Manager and Project Manager will ensure that the balance of funds are budgeted in the future years, including all options exercised.

Impact to Budget

The current source of funds for this action is Measure R, Federal STIP, and Proposition A35. Use of these funding sources maximizes allowable project funding allocations given established provisions and guidelines.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of this recommendation supports the following Metro Strategic Plan Goal: Deliver outstanding trip experiences for all users of the transportation system. This project will improve safety, service, and reliability in an effort to provide a world-class transportation system that enhances quality of life for all who live, work, and play within LA County.

ALTERNATIVES CONSIDERED

The alternative is to not upgrade the P3010 LRVs and this alternative is not recommended as the vehicles will not recognize the new track circuits and will lead to many in-service failures. To operate, trains will need to operate in degraded mode which will compromise service and operation on the Crenshaw/LAX and connecting lines.

NEXT STEPS

If this item is approved, staff will issue a contract modification to Kinkisharyo and will then work with the supplier and the Crenshaw/LAX Project Management team to design, test, and implement the software upgrades on the P3010 base and option order vehicles to ensure safe and reliable operation on the Crenshaw/LAX and existing lines.

ATTACHMENTS

Attachment A - Procurement Summary

Attachment B - Contract Modification Authority (CMA) Summary

Attachment C - DEOD Summary

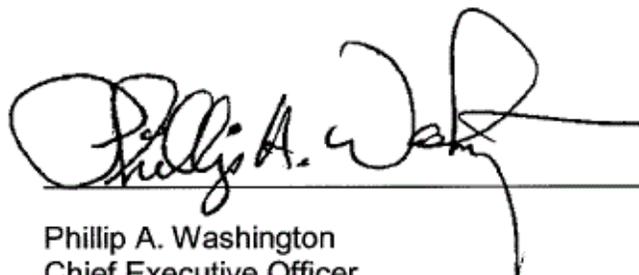
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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

**P3010 LIGHT RAIL VEHICLE
CRENSHAW FINAL CUTOVER ATC SOFTWARE UPDATES**

1.	Contract Number: P3010		
2.	Contractor: Kinkisharyo, International LLC		
3.	Mod. Work Description: The Contractor shall install Type II ATC/ATP software source code on 235 P3010 LRVs. This software is necessary to operate the P3010 LRVS on Metro's new Crenshaw Line.		
4.	Contract Work Description: New Light Rail Vehicles		
5.	The following data is current as of: 10/9/2018		
6.	Contract Completion Status		Financial Status
	Contract Awarded:	4/20/2012	Contract Award Amount: \$299,061,827
	Notice to Proceed (NTP):	8/2012	Total of Modifications Approved: \$622,693,895
	Original Complete Date:	2/2017 (Base only)	Pending Modifications (including this action): \$2,350,680
	Current Est. Complete Date:	6/2021 (including Options)	Current Contract Value (with this action): \$924,106,402
7.	Contract Administrator: Wayne Okubo		Telephone Number: (213) 922-7466
8.	Project Manager: Jason Yaw		Telephone Number: (213) 922-3325

A. Procurement Background

This Board Action is to approve Modification No. 37 to Contract No. P3010 for Crenshaw final cutover Automatic Train Control (ATC) Software Release. The Contractor will install the software on 235 P3010 light rail vehicles (LRVs).

This Contract Modification will be processed in accordance with Metro's Acquisition Policy and the contract type is a firm fixed price.

In April 2012, Kinkisharyo International LLC (KI) was awarded a firm fixed price contract in the amount of \$299,061,827 for the manufacturing and delivery of 78 LRVs under Contract No. P3010. On August 14, 2013, KI was awarded Contract Options 1 and 4 for a firm fixed price amount of \$366,321,644.00 to manufacture and deliver an additional 97 LRVs. Then, on July 31, 2015, KI was awarded a firm fixed price amount of \$244,758,402.00 to manufacture and deliver 60 LRVs. Totalling the Base Contract and four options, Metro has ordered 235 LRVs from KI.

The scope of work under this Contract Modification is to update and install Type II ATC/ATP software source code on all 235 P3010 LRVs so that the LRVs can operate on the Metro Crenshaw Line currently under construction and schedule to begin operation in late 2019. During the P3010 vehicle final design review phase, the relevant alignment information from the Crenshaw Line was not available. It has been Metro's intent to run P3010 LRVs on the new Crenshaw Line; therefore, the current ATC/ATP software source code will need to be updated, tested, and formally qualified for compatibility with new wayside equipment, new track alignments, and OCS equipment.

On July 23, 2018, procurement issued a Limited Notice to Proceed (LNTP) for RFC No. 28 with a not-to-exceed amount of \$500,000 to initiate the software development in order to meet the Crenshaw project's test schedule. The LNTP allowed KI and their subcontractor Ansaldo STS to begin long lead segmental field testing of the Crenshaw line to prepare for the P3010 vehicle software upgrades.

B. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon cost analysis, an independent cost estimate, technical evaluation, and negotiations.

Proposal Amount	Metro ICE	Negotiated Amount
\$2,548,217.00	\$2,591,871.10	\$2,350,680.00

CONTRACT MODIFICATION/CHANGE ORDER LOG

P3010 LIGHT RAIL VEHICLES

Mod No.	Description	Status	Date	\$ Amount
N/A	Award Base Contract	Approved	8/2/2017	\$ 299,061,827.00
1	Modify SP-27 US Employment Plan, Section B – New FTE Positions	Executed	9/10/2012	\$ 0.00
2	Exercise Contract Option No. 1 for \$104,428,419 and Option No. 4 for \$261,893,225 and Period of Performance	Executed	8/14/2013	\$ 336,321,644.00
3	Revise Period of Performance to include 30 days retooling period after delivery of last car on prior order	Executed	9/23/2013	\$ 0.00
4	Modify applicable commercial Specs and Technical Specs for Request for Change No. 9 LED on Recording Cameras. Increase Contract Amount for the Base Buy by \$120,362.19	Executed	1/27/2014	\$ 120,362.19
5	Modify Applicable Commercial Specs and Technical Specs for Request for Change No.10 - Door Close Operator Alert. Increase Contract Amount for the Base Buy by \$74,763.06	Executed	1/28/2014	\$ 74,763.06
6	Modify Applicable Commercial Specs and Technical Specs for Request for Change No.11 Train Operator Log In. Increase Contract Amount for the Base Buy by \$253,955.52	Executed	6/24/2014	\$ 253,955.52
7	Modify Applicable Commercial and Technical specs for RFC No. 14 for revising car number to four digits	Executed	1/30/2014	\$ 0.00
8	Modify Applicable Commercial and Technical specs for RFC No. 1 for the addition of a backup train operator display	Executed	6/27/2014	\$ 861,695.00
9	Modify Applicable Commercial and Technical specs for RFC No. 8 Location for Emergency Tool Enclosures	Executed	7/7/2014	\$ 0.00
10	Deleted	Not Executed	7/18/2014	\$ 0.00
11	Exterior Rear View Mirrors	Executed	11/24/2014	\$ 677,317.00
12	Sandbox Location	Executed	12/10/2014	\$ 548,242.00
13	RFC No. 13 - Adding Graphic Display	Executed	1/16/2015	\$ 355,848.00

14	Revised Invoice Procedures	Executed	1/16/2014	\$ 0.00
15	RFC No. 2 - Exterior route signs with color ID	Executed	2/26/2015	\$ 1,206,791.85
16	RFC No. 6 - Interior Route Information Signs	Executed	4/3/2015	\$ 1,274,944.00
17	Escalation Increase in accordance with CP-09 entitled "Option Prices and Adjustment" for Option 1 and Option 4	Executed	5/13/2015	\$ 6,534,165.00
18	Exercise of Contract Options 2 and 3	Executed	5/20/2015	\$ 224,758,804
19	Addition of Interior Route Information Signs – Design Change	Executed	10/15/2015	\$ 169,146.00
20	Cab Console – Door Control	Executed	10/15/2015	\$ 194,439.00
21	Vehicle Scale Model	Executed	2/12/2016	-\$ 75,000.00
22	Escalation Increase in accordance with CP-09 entitled "Option Prices and Adjustment" for Option 2 and Option 3	Executed	3/21/2016	\$ 11,651,376.00
23	Transport of three LRVs (No. 1003, 1014, and 1016)	Executed	5/4/2016	\$ 30,647.00
24	Windshield wipers and brake cut out skirt openings	Executed	9/20/2016	\$ 248,892.03
25	Revision of SP-04 entitled "Approved Subcontractors and Suppliers" list	Executed	12/14/2016	\$ 0.00
26	Extension of Time Base Contract from 53 to 56 months	Executed	1/27/2017	\$ 0.00
27	Transport of 19 railcars from Monrovia to Green Line	Executed	6/28/2017	\$ 205,571.00
28	Modification of CP-02. Modification changes the percentage for the Conditional Acceptance and Final Acceptance Milestones	Executed	10/31/2017	\$ 0.00
29	Crenshaw Line Tie-In Support	Executed	2/7/2018	\$ 191,747.16
30	RFC #19 Reflective Labels for 78 Base LRVs	Executed	5/7/2018	\$ 609,974.61
31	Award RFC No. 1 for Addition of Train Operator, RFC No. 2 for Color Route ID, RFC No. 3 for Addition of exterior rear view mirrors, and RFC No. 6 for Interior route information signs	Executed	6/25/2018	\$5,687,691.00
32	Award RFC #7 for Sandbox Relocation and RFC #19 Reflective Labels, on 157 LRVs Option 1-4	Executed	6/28/2018	\$3,675,427.00
33	Award RFC #11 for Train Operator Log-In and RFC# 13 for Graphic Design at ADA and Priority Seats on 157 LRVs, Options 1-4	Executed	7/18/2018	\$913,473.00

34	Award RFC #23 for Car Paint on 78 Base Order LRV's and RFC #24 for Brake Cut-Out Skirt Opening on 157 LRVs, Options 1-4	Executed	7/26/2018	\$355,656.00
35	Award RFC #9 for LED's on Recording Camera's, RFC #10 for Door Close Operator, and RFC #22 for Windshield Wiper, on 157 LRV's, Options 1-4	Executed	8/8/2018	\$233,280.24
36	Replace existing 100% Performance Bond with a \$50 million Irrevocable Letter of Credit	Approved in September 2018 Board	Pending Execution	-\$4,386,957.00
37	Award RFC #28 for Crenshaw Final Cutover Software Updates	Recommended for Approval	TBD	\$2,350,680.00
	Subtotal – Negotiated and In Process Changes			\$924,106,402.01
	Subtotal – Negotiated and Recommended for Approval			\$0.00
	Subtotal — Negotiated but Not Executed, Recommended Approval for CEO to negotiate and execute (Pending)			\$2,350,680.00
	Total Estimated Modifications Including Pending Changes			\$622,693,895.01
	Prior CMA Authorized by the Board (CMA 10% of aggregate amount of original award plus Options 1-4)			\$89,014,227.10
	Increased CMA requested			\$0.00
	Total CMA including this action			\$15,778,586.01
	Remaining CMA for Future Changes			\$73,235,641.09

DEOD SUMMARY

**P3010 LIGHT RAIL VEHICLE
CRENSHAW FINAL CUTOVER ATC SOFTWARE UPDATES**

A. Small Business Participation

Kinkisharyo International, LLC is a Transit Vehicle Manufacturer (TVM) and is on the Federal Transit Administration's (FTA) list of eligible TVMs. Kinkisharyo reported that it submitted its overall Disadvantaged Business Enterprise (DBE) goal of 10% to FTA for Federal Fiscal Year 2019, in compliance with 49 Code of Federal Regulations (CFR) Section 26.49(a)(1). TVMs submit overall DBE goals and report participation directly to FTA annually.

B. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. United States Employment Plan Program

United States Employment Plan (USEP) Program is applicable on this Contract. DEOD staff within V/CM has been monitoring progress on USEP commitments, including the contractual commitment in creating employment opportunities in the U.S. The Contractor Kinkisharyo has currently created over 600 new jobs nationwide to support this project, totaling \$101,822,155 in new wages and benefits. .

To date, Kinkisharyo has exceeded its USEP commitment in new wages and benefits.

USEP Commitment for Base + All Options	\$97,889,293.00
USEP Actuals to Date	\$101,822,155.49
Balance of USEP to be Attained	\$0.00

E. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy (PLA/CCP) is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction contract value in excess of \$2.5 million.