



Board Report

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REVISED
SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
JUNE 15, 2017

SUBJECT: P2550 LIGHT RAIL VEHICLE COMPONENT OVERHAUL

ACTION: ESTABLISH A LIFE OF PROJECT BUDGET

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING a Life-Of-Project (LOP) Budget for the implementation of a Component Overhaul Program for the P2550 Light Rail Vehicle (LRV) fleet, capital project number 214001 in the amount of \$35,007,546; and
- B. AUTHORIZING the Chief Executive Officer to award a 60 month indefinite quantity/indefinite delivery Contract No. MA27585 to ORX for the overhaul of 103 Ansaldo Breda P2550 light rail vehicle powered axle assemblies for a not-to-exceed amount of \$4,952,654, subject to resolution of protest(s), if any.

ISSUE

The Original Equipment Manufacturer (OEM) establishes a timeline for vehicle maintenance and major system overhauls in order to maintain the safety and level of performance of their vehicles. The P2550 fleet is due for a major system overhaul per the OEM's and Metro engineering's recommendations.

Implementation of this program helps ensure the P2550 fleet remains in a constant State of Good Repair (SGR) by overhauling multiple systems on the vehicles including the friction brake, propulsion, doors, truck and suspension, auxiliary power, and coupler systems. Completing this scheduled overhaul on time will ensure equipment safety, performance and longevity of the cars.

DISCUSSION

The P2550 LRV fleet was placed in revenue service in March 2008 to support the opening of the Gold Line Eastside line extension. Since 2008 the fleet has accumulated over 30 million miles; an average of 600,000 miles per car. The cars have a consistent performance, and a reliable safety

record.

The Component Overhaul Program consists primarily of the removal of aged components and the replacement with overhauled components, and may be performed several times during the life of the car. The Mid-life overhaul is performed only once, at approximately 15 years. Metro staff will perform the removal, testing and reinstallation of the overhauled components. Various vendors will perform the component teardown and overhaul. This contracted work requires specialized equipment, tooling, and training; and shall meet Federal Transit Administration (FTA), Association of American Railroads (AAR), California Public Utilities Commission (CPUC) and Metro's Corporate Safety standards.

Metro's Rail Vehicle Engineering unit along with the Rail Fleet Services unit performed a maintenance review and condition assessment of the systems to be overhauled and then identified technical specifications to be prepared. It is expected that nine separate vendor contracts will be awarded to complete this component overhaul. The staff will return to the Board for approvals.

The Component Overhaul Program is coordinated with the Mid-life Rehabilitation Program and involves significant teardown and inspection of the car, truck and major assemblies, including system upgrades integration as obsolete systems are replaced with current technologies. Detailed planning for the Mid-life overhaul is expected to start in FY18. The OEM identifies the Mid-life Overhaul Program to be performed at the 15 year life cycle so that the vehicles achieve a design life of 30 years.

DETERMINATION OF SAFETY IMPACT

Safety is of the utmost importance to Metro; therefore, it is imperative to maintain the P2550 fleet. This program ensures that the fleet is overhauled in accordance with regulatory standards, the car builder prescribed maintenance cycles, and Metro's internal standards, policies and procedures.

FINANCIAL IMPACT

Adoption of the overhaul program establishes an LOP Budget in the amount of \$35,007,500 ~~\$35,007,546~~ through FY23. Since this is a multi-year project, the cost center Director and Sr. Executive Officer, Rail Fleet Services will ensure that the balance of funds is budgeted in future years.

Impact to Budget

Budget in the amount of \$2.7 million has already been included in FY17 annual budget under CP 214001. The planned source of funds for this project comes from local funding source TDA Article 4 which is eligible for Bus and Rail Operating or Capital Projects.

ALTERNATIVES CONSIDERED

The P2550 Fleet is one of Metro's most reliable rail fleets and in order to continue with consistent

reliability, availability, and safety record the component overhaul is an integral program to continue the positive trend. An alternative is to defer the component overhaul program; however, this is not recommended as it may negatively impact safety, which may result in service delays, exposure to risk of fines during regulatory audits, and impact equipment and vehicle design life.

NEXT STEPS

Upon Board approval, staff will execute Contract No. MA27585 to ORX for the overhaul of 103 Ansaldo Breda P2550 light rail vehicle powered axle assemblies. There will be an additional eight overhaul contracts that will be brought to the Board for approval to complete this LOP Budget over the next 12 months.

ATTACHMENTS

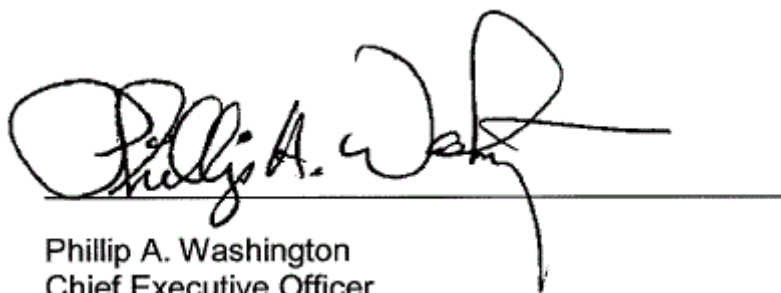
- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - LOP and Budget Summary

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