



Los Angeles County
Metropolitan Transportation Authority

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**CONSTRUCTION COMMITTEE
APRIL 17, 2014**

SUBJECT: METRO BETTERMENTS FOR EXPO PHASE 2

ACTION: AUTHORIZE FUNDING FOR METRO BETTERMENTS

RECOMMENDATION

Establish a separate project for Expo Phase 2 Betterments and authorize funding for a Life-of-Project Budget of \$3.9M. This project will be used for improvements that are enhancements to the requirements of the 2010 Metro Design Criteria.

ISSUE

A betterment is a change requested by Metro or any third party that will improve the level of service and/or capacity, capability, appearance, efficiency or function over that which was required by the Metro Design Criteria at the time the design-build contracts were advertised for bid. The Expo Phase 2 Light Rail Project budget does not include funding for any changes in scope that are beyond the requirements of the 2010 Metro Design Criteria that was in place at the time of bid. In addition, the Funding Agreement between Metro and the Expo Construction Authority does not allow for Expo 2 project funds to be used for betterments.

Changes in scope to the design-build contract have been identified that Metro staff believes will improve the quality and efficiency of operations, communications, safety, security, Americans with Disability Act (ADA) requirements and long term maintenance.

A separate Expo Phase 2 Betterment project is required to address the differences requested by Metro in order to fund the increased requirements of current standards.

DISCUSSION

In January 2013, the Metro Board approved expenditures for betterments on the Foothill Extension Phase 2A project. As a result, Betterments have been implemented on Foothill similar to those being proposed for Expo Phase 2.

Metro Staff recommends the following improvements to be authorized by this Board Action:

- Enhancements to Latch Gate Telephone (GTEL) Systems for station ADA customer use and security – GTELS are required where latch gates are installed, allowing for prompt assistance, in lieu of station staffing. GTELS are anticipated to become a standard for future Metro fare gate arrays (20 at \$15,000 each - estimated value \$300,000)
- SAN Storage Units and Camera Software to improve station security – Storage of surveillance data as an enhancement to real-time Closed Circuit Television (CCTV) is not required by Metro Design Criteria but allows for CCTV recordings to be stored for multiple stations and transmitted to the Rail Operations Control Center (ROC) (estimated value \$180,000)
- Back-up Track Guideway Lighting – Back-up lighting for customer evacuation in the event of a power outage is required in the Design Criteria in station areas of the guideway. Metro Corporate Safety is requesting additional back-up lighting along the guideway to enhance safety at identified locations outside of the station areas where customer evacuation would be difficult during a power outage (estimated value \$100,000)
- Vital Train Control switching in the Expo Santa Monica Maintenance Yard – Design Criteria dated 2010 was not specific regarding vital switching for the Yard. Updated Design Criteria dated 2012 requires vital train control specific to the Yard. Metro Operations is requesting to implement the updated 2013 Criteria for the Expo II Yard to eliminate the possibility of inadvertent switching that may occur while train vehicles are on sitting on top of the switch, which could lead to a train derailment (estimated value \$1,200,000)
- Enhanced ADA directional assistance tiles for all stations – Not required by Metro Design Criteria at the time of Expo Bid (estimated value \$150,000)
- Additional Map cases and wayfinding signs for customer assistance at the 4th Street Terminus Station and Sepulveda Parking Facility. Add 10 additional Map Cases, and Light Emitting Diode (LED) wayfinding signage along with structural work for associated canopies and sign foundations, additional conduit and power upgrades (estimated value \$750,000)
- Maintenance and Operations Facilities improvements: Information Technology (IT) infrastructure for additional fiber cable that will provide enhanced communications and computer capability, improved intercom systems, maintenance equipment upgrades including life-cycle improvements to car wash piping (stainless steel versus galvanized), a hydraulic pressure Tramming Table to allow for improved maintenance practices related to the rail vehicle truck/wheel systems, vehicle handling upgrade to electronic couplers versus the mechanical couplers required by the 2010 Metro Design Criteria (ROM estimated value \$1,000,000)
- Indefinite Duration Indefinite Quantity (IDIQ) unit-priced contract updated material and equipment – Replace IDIQ equipment that has been upgraded since time of Expo bid (ROM estimated value \$100,000)

- Communications and alarm function upgrades to ROC - Increase the data processing capacity from requirements in 2010 Design Criteria. Upgrade from Fiber Optical Communications System OC-148 cards to OC-192 data cards, providing more capacity and allows Metro flexibility to implement evolving technologies, such as streaming video on the LED signs, installation of additional CCTV cameras throughout the alignment, and alarm function upgrades (ROM estimated value \$120,000).

DETERMINATION OF SAFETY IMPACT

Inclusion of vital train control in the Maintenance Yard protects against inadvertent switching that may occur underneath train vehicles, in turn preventing train derailment. Back-up track guideway lighting will provide for improved safety should a train evacuation become necessary along the guideway at non-station areas in the event of a power outage. Directional assistance tiles will enhance an ADA customer's ability to safely navigate rail stations to elevators, platforms and train doorways. Improvements to the communications systems will provide for enhanced quality and capacity for data transmissions, in turn improving security systems in stations and parking facilities.

FINANCIAL IMPACT

Upon approval of the recommendation, a Betterment project will be established for \$3,900,000 using Measure R 35% funds. The Betterment project consists of Rough Order of Magnitude estimated cost. The individual line item betterments include an allocation of contingency to address minor variations in the final price while negotiations are ongoing. Upon conclusion of all line item negotiations and invoice processing, staff will close the Betterment project returning all unused funds per previously established Board policies affecting Regional funding. Since this is a multi year project, the Executive Director of Engineering and Construction, Project Manager and Cost Center Manager will be responsible for budgeting for future fiscal year periods.

Impact to Budget

The source of funds for this recommendation is Measure 35% funds planned for the Expo corridor. It is not eligible for Operational activities and no other funds were considered. Prop A and C funding was not considered as the Expo II corridor has fully utilized its respective allocations per the most recently approved funding agreement.


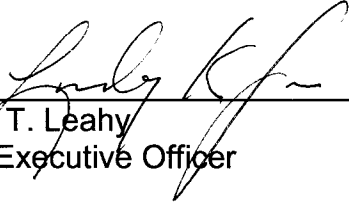
NEXT STEPS

Upon Board authorization, staff will provide direction to the Exposition Construction Authority to proceed with implementation of the Betterments upon completion of negotiations.

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