

**Metro**Los Angeles County
Metropolitan Transportation AuthorityOne Gateway Plaza
Los Angeles, CA 90012-2952213.922.2000
metro.net**FINANCE, BUDGET AND AUDIT COMMITTEE
OCTOBER 19, 2011****PROJECT: CRENSHAW/LAX TRANSIT CORRIDOR PROJECT****ACTION: APPROVE LIFE-OF-PROJECT BUDGET****RECOMMENDATION**

- A. Establish Life-of-Project (LOP) budget of \$1.715 billion for the Crenshaw/LAX Transit Corridor Project No. 865512.
- B. Reprogram up to \$34.4 million but not less than \$31.3 million, in prior State TIP funds from the Interstate 405/Arbor Vitae Interchange Improvement project to Project No. 865512 increasing LOP Budget in Recommendation A to \$1.749 billion.

ISSUE

Board approval is required, per Final Unified Cost Management Process and Policy, to establish the LOP budget to commence construction phase activities such as right-of-way acquisition, early utility relocations, and solicitation of construction contracts.

DISCUSSION

The Crenshaw/LAX Transit Corridor is a north/south corridor that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The proposed alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition Boulevards to a connection with the Metro Green Line at the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the Metro Green Line, the Exposition Line and countrywide bus network. The Board adopted a light rail system as the locally preferred alternative on December 10, 2009.

The alignment is comprised of a double-tracked right-of-way consisting of sections of at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, six stations, park and ride facilities at three locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility.

The project will provide jobs and community revitalization opportunities in a historically underserved area of Los Angeles County and is expected to be a significant engine for development in the corridor.

In October 2010, the Board established an interim LOP budget of \$21.0 million for capital project 865512 and authorized completion of preliminary engineering with the condition that a final LOP budget would continue to be developed during this phase.

During preliminary engineering, scope modifications were incorporated as part of the project. These changes, resulting from consultations with agencies such as the Public Utility Commission, Los Angeles Department of Transportation, and Federal Aviation Authority, included:

- 1) At-grade to below-grade segment from Exposition Boulevard to 39th Street;
- 2) La Brea Avenue Grade Separation changed from aerial to below-grade;
- 3) Partially covered trench adjacent to LAX as an interim condition; and
- 4) Maintenance Facility near LAX (Arbor Vitae/Bellanca)

The changes in scope were included with no additional funding from the 2009 LRTP, which provided a \$1.715 billion (Year of Expenditure) budget. However, the combined changes above resulted in a projected increase to the overall cost for the project.

To mitigate cost increases over and above \$1.715 billion, extensive value engineering, cost reduction strategies, design refinements and evaluation of contracting strategies were undertaken during preliminary engineering and many proposals that reduced costs have been fully evaluated in accordance with the March 2011 Board adopted Final Unified Cost Management Process and Policy for Measure R Transit Projects. A summary of the evaluation undertaken is included as Attachment B.

Even with value engineering and other cost reduction proposals, a budget gap could not be completely eliminated and is up to \$34.4 million over the 2009 LRTP total project budget of \$1.715 billion (Year of Expenditure).

The Crenshaw/Vernon (Leimert Park Village) station is not included in the LOP of \$1.715 billion. As directed by the Board in May 2011, the station may be built if the construction bids for the design-build alignment contract with a design option for the station are within the LRTP budget of \$1.715 billion.

Recommendation B is to reprogram funding that is available within the same sub-region to cover the budget gap. The reprogramming of available sub-region funding is requested up to \$34.4 million that was freed-up from the I-405/Arbor Vitae Interchange project. On May 26, 2011, the Board approved a Motion to seek funding to increase the adopted funding level in the 2009 Long Range Transportation Plan to enable all approved scope, including a station at Vernon Avenue (Leimert Park), to be constructed. Following Board direction, staff is recommending re-programming the I-405/Arbor Vitae funding to increase the Recommendation A Life-of-Project budget to

\$1.749 billion. This funding level will cover the additional cost of the adopted project which includes the extended below grade segment to Exposition Boulevard and may cover the Board requested Vernon Avenue (Leimert Park) station bid option if Design-Build contractor responsible and responsive bid prices are within available funding.

For more information about the State TIP funds from the Interstate 405/Arbor Vitae Interchange Improvement project, please see the concurrent report being brought to the Planning and Programming Committee.

Staff has completed value engineering and will continue to seek further cost reductions including deferral of project elements and evaluation of current market conditions. In addition, selection of procurement strategies that may provide opportunities to encourage competition, further cost reduction and innovation through a design-build negotiation procurement strategy are being considered. An industry review process has also been initiated to seek market interest and input from interested proposers for the project prior to release of a Request for Qualifications in November 2011 and Request for Proposals in January 2012.

Currently with the increase in scope, the project schedule at this time includes a forecast for the Revenue Service date of December 2018.

FINANCIAL IMPACT

Funds are included in FY12 for this action under Measure R Project 865512 (Crenshaw/LAX Transit Corridor Project), in Cost Center 8510 (Construction Project Management), and Account No. 53101. Since this is a multi-year project, the Executive Director and Project Manager will be responsible for budgeting future year's costs.

Impact to Bus and Rail Operating and Capital Budget

The funding for this project will be capital funds identified in the adopted Long Range Transportation Plan. The Funding/Expenditure Plan has been included as Attachment A. The sources of funds are not eligible for bus operating activities.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the LOP budget for this project. However, this action may delay the commitment of funds needed for timely right-of-way acquisitions and solicitation of construction contracts.

NEXT STEPS

Upon Board approval, the project will proceed with completion of preliminary engineering, right-of-way acquisition; advance utility relocation and solicitation for construction contracts.

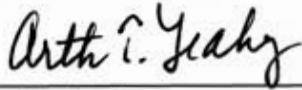
ATTACHMENTS

- A. Funding/Expenditure Plan
- B. Cost Management Process

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Attachment A
Crenshaw/LAX Transit Project
Funding/Expenditure Plan*
(Dollars in Millions)

Capital Project 865512	Prior	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	TOTAL	% of Total
Uses of Funds												
Construction	0.2	3.4	56.6	235.1	312.1	295.9	170.7	55.6	4.0		1,133.6	64.8%
Right-of-Way	0.1	10.2	41.0	17.9							69.2	4.0%
Vehicles						30.7	41.3	15.8			87.8	5.0%
Prof Services	12.6	21.2	28.6	35.0	41.3	47.9	49.3	11.3	6.8	3.6	257.6	14.7%
Project Contingency	0.0	3.5	5.6	3.3	32.6	33.6	47.8	41.5	6.9		174.8	10.0%
Subtotal Proj. 865512	12.9	38.3	131.8	291.3	386.0	408.1	309.1	124.2	17.7	3.6	1,723.0	98.5%
Environmental/Planning	25.2	0.8									26.0	1.5%
Total Project Costs:	38.1	39.1	131.8	291.3	386.0	408.1	309.1	124.2	17.7	3.6	1,749.0	100%
Sources of Funds												
Proposition A 35% Bonds	4.8										4.8	0.3%
Local Agency Funds						51.4		1.0			52.4	3.0%
Proposition C 25%	4.1			14.7	102.6			26.6	6.4		154.4	8.8%
Measure R TIFIA Loan						139.9	309.1	96.6	0.3		545.9	31.2%
Measure R Cash	17.1			246.3	234.8	142.8			11.0	3.6	655.6	37.5%
Prop 1B PTMISEA		39.1	131.8	30.3							201.2	11.5%
Regional Improvement Program	2.3				34.4						36.7	2.1%
Section 5309 Bus&Bus-Related Facility Earmark	8.6										8.6	0.5%
CMAQ					14.2	54.0					68.2	3.9%
RSTP						20.0					20.0	1.1%
Federal -other	1.2										1.2	0.1%
Total Project Funding:	38.1	39.1	131.8	291.3	386.0	408.1	309.1	124.2	17.7	3.6	1,749.0	100%

* Sources of funds are preliminary and subject to change. Costs are based on draft Preliminary Engineering Cost Estimate and assume Revenue Operations in 2018.

Attachment B
Crenshaw/LAX Transit Corridor Project
Cost Management Process

In accordance with the Final Unified Cost Management Process and Policy adopted by the MTA Board in March 2011, MTA staff has extensively evaluated the Crenshaw/LAX project. At this time, the estimated budget gap over the LRTP budget of \$1.715 billion is up to \$34.4 million. The adopted Final Unified Cost Management Process and Policy stipulates the following:

"If increases in cost estimates occur, the MTA Board must approve a plan of action to address the issue prior to taking any action necessary to permit the project to move to the next milestone. Increases in cost estimates will be measured against the 2009 Long Range Transportation Plan as adjusted by subsequent actions on cost estimates taken by the MTA Board. Shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order":

- 1) Value engineering and/or scope reductions;
- 2) New local agency funding resources;
- 3) Shorter segmentation;
- 4) Other cost reductions within the same transit corridor or highway corridor;
- 5) Other cost reductions within the same sub-region; and finally,
- 6) Countywide transit cost reductions and/or other funds will be sought using pre-established priorities.

As stated in the policy, staff evaluated and identified up to \$34.4 million shortfall using the six methods identified above. Each evaluation method is discussed in detail below.

Value Engineering and/or Scope Reductions

During Preliminary Engineering, staff completed value engineering, evaluation of cost reduction strategies, design refinements and evaluation of contracting strategies to reduce project costs. Major cost strategies have been implemented and include the scope modifications/contracting strategies listed below:

- 1) Selection of Design-Build as a procurement strategy to seek innovation from construction industry
- 2) Completion of Preliminary Engineering has provided further design refinement/design details and a better cost estimating basis
- 3) Narrow Alignment/Reduce Right-of-Way Costs on Harbor Subdivision
- 4) Changes to Manchester Aerial Structure – eliminate provision for an aerial station and allow for a future at-grade station east of Manchester Avenue
- 5) Shift La Brea station from depressed under La Brea Avenue to at-grade station near Market Street
- 6) Modify mechanical ventilation system in Cut and Cover segments
- 7) Refinement of systems elements allowing reduction in cost
- 8) Reduction in hardscape/landscape along corridor
- 9) Changing alignment from an undercrossing under 111th Street to an overcrossing structure
- 10) Removal of continuous concrete lid cover extending the full length of the LAX Trench segment; eliminated need for mechanical ventilation
- 11) Modify station configuration at Aviation/Century
- 12) BNSF Abandonment allowing further optimization of LRT alignment with reduced utility relocation and right-of-way acquisitions
- 13) Cost sharing on MSF Facility in accordance with Metro's consolidated maintenance facility policy.

New Local Agency Funding Resources

MTA is establishing cooperative agreements with all local jurisdictions along the Crenshaw/LAX corridor, which will require cooperation by project stakeholders, and funding of improvements by stakeholders beyond the baseline scope of work. All agreements will be executed in place prior to start of construction.

MTA is actively pursuing other funding sources and has applied for federal grants eligible for intermodal improvements proposed at the Crenshaw/Exposition and Florence/La Brea stations.

Shorter Segmentation

Shorter segmentation is addressed in the Final Environmental Impact Statement/Environmental Impact Report (FEIS/FEIR).

The Minimum Operable Segments would reduce capital costs because of the shorter alignment over the LPA. An MOS segment ending at Century Boulevard, with the southern terminus at the Aviation/Century Station, would reduce the base year capital cost by \$122.85 million, or \$140.23 million in YOE dollars. A MOS segment ending at Martin Luther King Boulevard, with the northern terminus at the Crenshaw/ King Station, would reduce the base year capital cost by \$257.52 million, or \$293.96 million in YOE dollars.

The ability to implement shorter segments is affected by the fact that the Crenshaw/LAX LRT Project connects two other LRT projects at both of its end points – the Exposition Line at the northern end and the Metro Green Line at the southern end. Either of the shorter segment options would remove one of the primary benefits of the Crenshaw/LAX project, namely the ability to provide more direct connections and shorter travel times for trips between the South Bay and downtown Los Angeles and the Westside. Shorter segmentation would also impact the performance of other Measure R projects including the South Bay Green Line Extension and Green Line to LAX lines, which also demonstrate better ridership and operational performance due to the tie-in of the Crenshaw/LAX Line to the existing Metro Green Line.

The ability to make connections, ridership, and operational efficiency all decrease with either of the two MOS alternatives. Staff does not recommend an MOS.

Other Cost Reductions within the Same Transit Corridor

There is a cost savings in the same transportation corridor as the Crenshaw/LAX project. Caltrans recently informed the LACMTA that they intend to remove the I-405/Arbor Vitae Interchange project from the State TIP because the no-build alternative was recommended at the conclusion of the environmental process. Of the \$34.4 million in funds released by the no-build decision, \$31.3 million definitely reverts back to LACMTA for a re-programming recommendation. As of this writing, we have been unable to confirm that the difference between the \$34.4 million and \$31.3 million definitely reverts back to LACMTA for re-programming. The \$3.1 million difference is lump-sum Right-of-Way funds from prior year that may not revert back to LACMTA for disposition due to the State Budget process that Caltrans uses for Right-of-Way needs on the State Highway System. Staff is pursuing affirmative answers from Caltrans and the CTC regarding the availability of the \$3.1 million for re-programming.

Other Cost Reductions within the Same Sub-Region

This step is unnecessary because we have identified a cost reduction in the same corridor, as described above.